



Accounting For Estimation of Uncertainties And Financial Performance Of Quoted Firms In The Industrial Goods Sector In Nigeria

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ABSTRACT

The study empirically examined the relationship between accounting for estimation uncertainties and financial performance of quoted firms in industrial goods sector of the Nigerian economy. To evaluate the relationship between accounting for estimation uncertainties and financial performance, the study employed estimates for depreciation, estimates for bad and doubtful debts, estimates for warranty liabilities, estimates for contingent liabilities and estimates for pension liabilities as dimensions of accounting for estimation uncertainties whereas return on asset (ROA) was used as a measure of financial performance. The agency theory underpinned the study while the ex-post research design was adopted for the study. All firms listed and categorized under the industrial goods sector constituted the population of the study. The convenience sampling method was used to determine the sample size based on data availability. Secondary data covering the period 2013 to 2019 were obtained published financial statements and used for the study. The data were analyzed using descriptive statistics, correlation and the fixed/random effect regression model. The results of the analyses showed that all dimensions of accounting for estimation uncertainties and return on assets jointly correlated positively. The results of Hausman test revealed that accounting estimation uncertainties measures determine 83.4% of the variations in the ROA. Similarly, the F-statistic of 32.85, with p-value of 0.000, is statistically significant at 1%, and indicates that the model has a very high goodness of fit. Furthermore, all dimensions of accounting estimation uncertainties except estimates for depreciation and estimates for bad and doubtful debts significantly influenced ROA. The study concluded that accounting for estimation uncertainties significantly influenced ROA of the understudied firms. The study recommends that managers should strictly adhere to the recognition and measurement criteria for accounting estimates as prescribed by the IFRS and that abusers of accounting estimates in financial should severely sanctioned in order to forestall its abuse and create value for the shareholders

Keywords: Accounting for Estimation Uncertainties, Return on Assets, Warranty, Depreciation, Pension, Contingent

1.0 INTRODUCTION

The general consensus among economic players is financial reports should provide sufficient information for the evaluation of the true state of affairs of the reporting entity by all categories of users to enable them make decisions of economic sense. The responsibility of reporting the financial state of an entities lies with the management. As agents of the owners of the company, management is required to provide accountability reports to shareholders and other stakeholders in the form of financial statements. Generally, users expect financial reports to satisfy the qualitative prescriptions set out in the IFRS framework as well as meeting the adequate disclose criteria of financial

information on the financial performance, financial position, cash flows and changes in the financial position of an entity. It is on this ground that financial statements can be adjudged relevant, reliable and faithfully representing the economic events and transactions of the reporting entity and therefore capable of providing the required support and basis for economic decision making by users (Elekwachi, 2012). To this end, Akenbor & Kiabel (2014) argued that financial information provided by an entity's financial statement influences users' decisions about the entity. Nnah (2017) highlighted some of the decision impacts of financial reports. He established that the financial statements enable lenders and suppliers to appraise the credit worthiness of the business; helps the government to determine the business tax liability; and gives guidance to shareholders and investors on investment decisions.

The objective recognition and measurement of all input variables used in the preparation and fair presentation of financial statements is an important criteria for establishing their relevance, reliability and truthful representation. However, certain input elements of financial statements are uncertain in terms of their financial amounts or values. The financial figures of these uncertain input variables of financial statements can only be determined and accounted for by estimations based on management and professional assumptions, experience, judgments and approximation. Elements of financial statements that lack estimation certainty in terms recognition and objective measurement are generally referred to as accounting estimates.

The International Standards on Auditing 540 defined accounting estimates as an approximation of a monetary amount in the absence of a precise means of measurement. Accounting estimates describe the amounts that are measured at in the event of estimation uncertainty, as well as for other amounts that require estimation. Nangih, E., Onuora, J.J.K., & Okafor, G. O (2021) defined accounting estimate as the "approximation of the monetary value of elements or items of financial statements for which there is no precise means of measurement". They further argued that accounting estimates are management prediction of the monetary value of financial transactions and events whose measurement is uncertain.

According to Nangih, E., Onuora, J.J.K., & Okafor, G. O (2021) accounting standards set by the International Accounting Standards Board (IASB) provide for general accounting principles which give management the leverage to determine the accounting policies and financial figures for items of uncertain measurement basis in line with the unique economic characteristics of the firm. The choice of an entity's accounting policy and the estimates used in the preparation of financial statements are largely subjective and requires the use of management's professional judgment.

Corporate management incorporate accounting estimates in historical financial statements to assess the impacts of past business transactions and events or the current status elements of financial statements. Financial inputs of uncertain values are subjective and relative; therefore, vulnerable to management bias. Accounting estimates appear regularly and prominently in and affects financial statements and the reported figures. Taking of the impact of financial estimates on financial performance or companies, Nangih, Onuora & Okafor (2021) argued that a significant amount of reported figures in a multipurpose financial statement possess some degree of estimates of the future for both liabilities and assets.

Some examples of transactions for which the use of estimates are permitted by the standards setters and regulators include: depreciation estimates, determination of the useful lives of assets, recognition of provisions, recognition of bad and doubtful debts provisions, estimate of the closing values of inventories, intangible non-current assets values, deferred tax estimates and current tax estimates (Nangih, Onuora and Okafor, 2021)

Accounting for and determination of the financial values of financial statement items associated with estimation uncertainties affects an entity's profit measurement, assets measurements, the determination of the values of liabilities and other transactions recognized and measured in the financial statements. Management's intentional or unintentional disregard of the significant effect of accounting estimates on the reported results as well as the serious negative consequences of the abuse of accounting estimates on performance measures have caused the failure of high profile companies within and outside Nigeria. The empirically investigate the extent to which accounting for estimation uncertainties affect performance of quoted firms in the industrial goods sectors in Nigeria is the reason for this study.

1.1 Statement of the Problem

International Financial Reporting Standards established the general principles for financial reporting by corporate entities. The preparation and fair presentation of financial reports require the objective recognition and measurement of all elements of financial statements incorporated in the production of financial reports of the entity. Elements of financial statements are objectively measured if their values are determined in total compliance with the prescriptions of the IFRSs on the measurement of such financial statement elements. Financial statements produced in this manner are adjudged to be relevant and reliable and will support users in making decisions of economic value. Furthermore, such financial statements provide information on the true and fair view of the state of affairs in the entity. The truthfulness of the reported figures faithfully representing the financial performance, financial position, changes in financial position and cash flows of the company adds greater value to the financial reports and the entity as a whole as users' confidence in the company increases.

However, some items of financial statements cannot be measured with precision and objectivity. Financial statement input variables such as provision for depreciation, provision for bad and doubtful debts, warranty costs, provision for pension liabilities, current and deferred tax provisions, provisions for contingent liabilities etc. cannot be measured with precision and accuracy. According to Nangih (2020) where it is impracticable to precisely determine the value of financial statement inputs, financial reporting standards permit management discretion in the determination of the financial value of such items of inexact financial value. The determination of the values of items that cannot be measured with precision by management is referred to as accounting for estimation uncertainties otherwise known as accounting estimates. In determining the carrying amounts of these items, management will usually rely on professional judgment, available historical information, experience, and other approximation or estimation measures.

An entity's accounting policies, changes in estimates and errors, and management's professional accounting judgments significantly affects its financial results. Due to the subjective nature of these estimates, their outcomes are prone to bias and unethical abuse by unprofessional managers. According to Raubenheimer (2012) the use of accounting discretion in financial reports does not result in accurate amounts but are values arising out of management presumptions, judgments, and guesses determined by the preparers of financial statements.

Corporate failures experienced by high profile organizations brings to the fore the all time relevance of the accounting estimates in influencing the performance of organizations. In the recent past, entities like Enron, Worldcom, and Caldbury Nigeria had gone down leading to huge financial and economic losses for shareholders and other interest groups. Several factors such as economic, technological, political etc can trigger corporate failure. The failures of these entities can be attributed to the abuse of accounting estimates.

Accounting figures in financial statements should faithfully represent the economic events and transactions of the reporting entity in order to secure the confidence of investors and other users. To achieve this goal of fair presentation in financial statements, management and preparers of financial statements should endeavour to strictly comply with the disclosure requirements of applicable IFRSs regarding estimation uncertainties.

Although, several studies had attempted the investigation of challenges associated with accounting for estimation uncertainties, there has not been any empirical evidence on how accounting for estimation uncertainties influences financial performance of quoted industrial goods firms in Nigeria. It is against this background that this study set out to empirically investigate to extent to which the containment of accounting for estimation uncertainties in financial statement affect the performance of quoted firms in Nigeria's industrial goods sector of the economy.

1.2 Aim and Objectives of the Study

The aim of this study is to empirically investigate the relationship between accounting estimates and financial performance of listed consumer and industrial goods firms in Nigeria. The broad and specific objectives of the study are to:

1. evaluate the relationship between estimates for depreciation and return on assets of quoted firms in the industrial goods sector in Nigeria.
2. examine the relationship between estimates for bad and doubtful debts and return on assets of quoted firms in the industrial goods sector in Nigeria

3. investigate the relationship between estimates for warranty liabilities and return on assets of quoted firms in the industrial goods sector in Nigeria
4. assess the relationship between estimates for contingent liabilities and return on assets of quoted firms in the industrial goods sector in Nigeria
5. investigate the relationship between estimates for pension liabilities and return on assets of quoted firms in the industrial goods sector in Nigeria

1.3 Research Hypotheses

Based on the objectives of the study, the following hypothetical propositions were formulated:

H0₁: There is no significant relationship between estimates for depreciation and return on assets of quoted firms in the industrial goods sector in Nigeria

H0₂: There is no significant relationship between inventory estimates and return on assets of quoted firms in the industrial goods sector in Nigeria

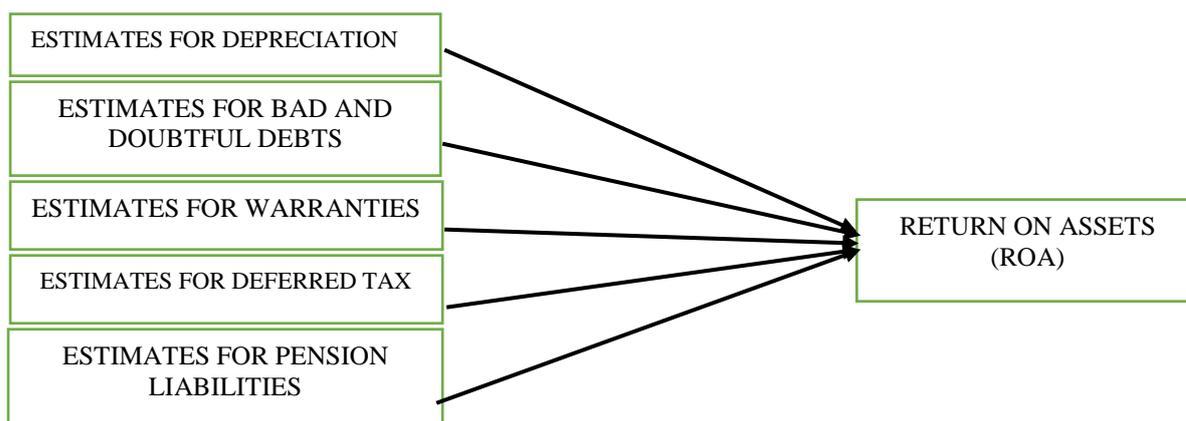
H0₃: There is no significant relationship between deferred tax estimates and return on assets of quoted firms in the industrial goods sector in Nigeria

H0₄: There is no significant relationship between current tax estimates and return on assets of quoted firms in the industrial goods sector in Nigeria

H0₅: There is no significant relationship between Pension liability estimates and returns on asset of quoted firms in the industrial goods sector in Nigeria

1.4 Conceptual Framework

Conceptual Framework of Accounting for Estimation Uncertainties and Financial Performance of Quoted Industrial Goods firms in Nigeria.



2.0 Review of Related Literature

2.1 Theoretical Review

The agency theory is based in the relationship between principals and agents. According to this theory the principal delegates decision making powers to the agent under a contract. Jensen et.al (1979) defined the principal-agent relationship as a contract under which one or more persons (principals) engages another person (the agent) to perform some services on their behalf, which involves giving some decision making authority to the agent. In the principal agent relationship, the agent is expected to work for the interest of his principal and should not allow his personal interest to conflict with the interest of the principal. However, recent findings reveal that the avoidance conflict of interest between the agent and his principal is becoming a challenge. Sometimes, information asymmetry and greed lure management into pursuing personal pecuniary goals contrary to the objective of the principal that appointed him. According to Clarke (2004) conflict of interest or lack of goal congruence between management and the shareholders is an agency problem.

Agency relationship between shareholders and agents arises when shareholders delegate the administration of an entity to management, thus making management the agent of the shareholders. Generally, management is expected to work for and pursue the maximization of the wealth of the shareholder (Clarke, 2004).

Agency relationship has its fair share of challenges. Problems of shareholder – management relationship come in different forms. For instance, in pursuit of benefit based targets, management may adopt and abuse the use of accounting estimates to either inflate or reduce actual performance results depending on which direction of the swing satisfies their private pecuniary interest. The manipulation of actual results to gain benefits that are tied to target realization hurts the interest of the shareholders and could lead to value decline and possible loss of investment.

In carrying out its agency roles, management should ensure that all actions and decisions taken are in the best interest of shareholders and that such decisions result in wealth maximization for the owners of the business. Management should avoid the abuse of accounting estimate in order to prevent the concealment of the true state of affairs in the company or the attraction of tax related punitive measures from the government due unethical business practices.

2.2 Conceptual and Empirical Review

Accounting for estimation uncertainties deals with ascribing financial values to financial statements items that cannot be measured with precision based on management discretion, judgments, estimates, assumptions or approximations. It is the responsibility of corporate management to prepare the financial statement of the entity it oversees. In preparing the financial reports of companies, management renders an account of stewardship of how the resources of shareholders have been applied to achieve the corporate objectives of maximizing the wealth of shareholders.

As far as practicable, financial statement should communicate in an objective manner, the true and fair view of the economic events and transactions that had occurred in the reporting entity and aid economic decisions of users. To fulfil this important purpose, the amounts reported in the financial statement should faithfully represent the events and transactions it purports to represent and should be free from management biases. The challenge before the attainment of this objective is that certain financial figures in financial reports are subjectively determined being products of management assumptions and judgments and could be prone to biases and manipulations. Financial amounts associated with estimation uncertainties are described as accounting estimates. The use of accounting estimates in financial statement affect the entity's reported performance and hence the overall state of the company. Provision for depreciation, provisions for bad and doubtful debts, warranty liabilities, contingent liabilities etc are examples of financial statement items that lack precise measurement basis. To determine the values of these items, management relies on its judgment and experience which is largely subjective and significantly varies from one company to another. It is against this backdrop that accounting estimates have been found to significantly affect financial performance measures of entities as highlighted by the reviewed empirical studies.

Nangih and Anichebe (2021) investigated the effect of accounting estimates on information misstatements in financial reports of Small and Medium Enterprises in Nigeria. The study results indicated that wrong estimates may lead to, but are not the sole reason for misstatements in financial reports.

Abubakar and Olowe (2019) investigated the impact of accounts receivables management on Financial performance of selected quoted firms in Nigeria. The result of the analysis reveals that accounts receivable ratio, debt ratio and Revenue growth had a positive significant influence on financial performance.

Kolawole, Akomolafe and Olusipe (2019) studies the association between inventory management and profitability of manufacturing firms in Nigeria using International Breweries PLC as a case study. The findings of the study indicated the existence of strong and significant relationship between inventory management and profitability of International Breweries PLC in Nigeria.

Lugovsky and Kuter (2020) investigated the effect of accounting policies and accounting estimates fair financial statements preparation and presentation in digital economy. The findings of the study revealed that management judgement significantly influence financial figures presented to the users by them and the reliability of the entire financial reports. The study concluded that several other factors including but not limited to the choice of accounting, depreciation policies, legality of the transaction and changes in accounting estimates impact significantly on quality of financial statements.

Anastasia, Michael and Innocent (2014) studied the effect of accounts receivable management on corporate performance of companies in the food & beverage industry in Nigeria. The study found that

accounts receivable had negative but insignificant relationship with profitability, while debt and sales growth had positive and insignificant relationship with profitability of food and beverages manufacturing companies in Nigeria.

Etale and Sawyerr (2020) studied the extent to which inventory management on financial performance, using GlaxoSmithKline Nigeria PLC as case study.. The findings revealed that the impact of inventory management was positively significant on financial performance. The study recommended that management should maintain their inventory management for growth and success of the company.

Nangih and Wali (2020) investigated the impact of management’s choice of accounting policy and accounting approximations in financial statements on the quality of financial reports of Small and Medium Enterprises in Nigeria using primary data for analysis. Findings of the study revealed that wrong approximations may affect the quality of financial reports, together with other factors.

Olaoye and Adeniyi (2020) investigated the effect of accounting manipulations on performance of selected listed firms in Nigeria. They specifically examined the causes of accounting manipulations and also to find out if there were substantial influence of accounting manipulations on performance of firms in Nigeria. The study recommended that regulatory bodies should put in place effective policies and stringent penalty for violators to check the incidences of accounting manipulations among Nigerian firms.

Ayunku and Eweke (2019) examined the impact of accounting estimates on financial reporting quality in Nigerian Banks. The outcome of the study indicated that an increase in accounting estimates produced a greater accounting discretion The study recommended the continued use accounting estimates continue to exist in the accounting profession, the synchronization of accounting methods and compliance with IFRSs in estimating values for uncertain financial statement items.

3.0 RESEARCH METHODOLOGY

In order to evaluate the relationship between accounting estimation uncertainties and financial performance of firms quoted on the industrial goods sector of the economy, the study adopted as its research design the *ex-post facto* research design. The population of the study comprises all companies quoted in the industrial goods sector of the Nigerian economy. The convenience sampling method was used to determine the study sample based on availability of data. The study used secondary data obtained from the internet, published annual financial reports of understudied companies and the Nigerian Stock Exchange bulletin over the period of 2013 to 2019. The study period covered the post IFRS adoption period Nigeria, therefore allowing for objective comparison of accounting figures in financial statements of sampled entities. The data already existed and no attempt was made to manipulate their nature or value.

3.1 Estimation of Empirical Model for Analysis

The model for the study was adopted from the study of Nangih and Anichebe (2021) and modified thus.

$$ROA = f(DPR, BDE, WAE, CLE, PENL,) \dots\dots\dots 1$$

This can be econometrically expressed as

$$ROA = \beta_0 + \beta_1DPR_{it} + \beta_2BDE_{it} + \beta_3WAE_{it} + \beta_4CLE_{it} + \beta_5PEN_{it} + \mu \dots\dots\dots 2$$

Equation is the linear regression model used in testing the null hypotheses.

Where:

ROA = Return on assets;

DPR = Estimates for Depreciation

BDE = Estimates for Bad and Doubtful Debts

WAE = Estimates for Warranty Liabilities

CLE = Estimates for Contingent Liabilities

PENL= Estimates for Pension Liabilities

. μ = Error term;

β_0 = Constant; $\beta_1 \dots \beta_5$ = are the coefficient of the regression equation

i = is the cross section of firms used;

4.0 DATA PRESENTATION AND ANALYSIS

4.1.1 Descriptive Statistics

Descriptive statistic seeks to ascertain the basic characteristics of the variables employed in the study. It is geared towards providing additional information about each of the variables, which could aid in the formulation of inferences on the subject matter of study. It is presented in Table 4.1.

Table 4.1 Descriptive Statistics

	DPR	BDE	WAE	CLE	PENS	ROA
Mean	4.080402	16.72133	5.829518	2.717716	3.120006	0.793706
Median	3.550166	12.16031	4.650168	1.277962	1.238362	0.040000
Maximum	60.55235	296.3123	59.84997	34.40317	113.8152	1.380000
Minimum	0.000000	0.000000	0.000000	-1.794438	0.000000	69.47000
Std. Dev.	4.334996	21.90051	6.055561	4.296686	7.914388	6.124104
Skewness	8.207878	7.862490	3.449999	4.016912	10.16318	8.972905
Kurtosis	103.1288	95.08501	25.79679	23.86544	136.3858	87.76789
Jarque-Bera Probability	122685.2	103995.8	6760.369	5957.247	216942.2	89466.13
	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	1166.995	4782.301	1667.242	777.2668	892.3216	-227.0000
Sum Sq. Dev.	5355.774	136695.2	10450.90	5261.530	17851.70	10688.82
Observations	286	286	286	286	286	286

Source: Researcher's Computation, (2021)

The result in Table 4.1 indicates that DPR, BDE, WAE, CLE and PENS have mean and standard deviations (in parenthesis) of values of 4.08% (4.33%), 16.72% (21.9%), 5.83% (6.05%), 2.72% (4.3%) and 3.12% (7.91%), respectively. The higher value of their standard deviations is an indication of a wider spread in the data, which shows that there is variability in the estimates across the selected firms. The explanatory variable is also found to be asymmetric (having different means and medians). On the other hand, ROA has mean and standard deviation of 0.79% and 6.12%. Apart from ROA, the variables are less volatile than the explanatory variables. In addition, all the variables are skewed to the right and equally with very high peaks (given their respective Kurtosis statistic). Lastly, none of the variables seem to be normally distributed, given their Jarque-Bera statistics and p-values, although the assumption of normality does not arise in panel data estimation.

4.1.2 Correlation Statistics

The correlation statistics is geared towards examining the nature of the association existing between the variables of the study. It shows the degree to which two variables are likely to move together or apart within a given period of time. It is presented in Table 4.2. More importantly, the correlation statistics can provide information on the likelihood of multi co-linearity between the variables in a model.

Table 4.2 Correlation Statistics

	DPR	BDE	WAE	CLE	PENS	ROA
EPR	1.000000					
BDE	0.157502	1.000000				
WAE	0.045163	-0.068252	1.000000			
CLE	0.083156	0.194133	0.158855	1.000000		
PENS	0.038934	0.125166	-0.002924	0.044928	1.000000	
ROA	0.055489	0.097417	0.047071	0.089562	0.045910	1.000000

Source: Researcher's Computation, (2021)

The correlation statistics in Table 4.2 reveals that all the variables are positively correlated with ROA but the degree of association is weak. On the other hand, the correlations between the explanatory variables are less than 0.2 for all cases, which suggests that there are no perfect correlations between the explanatory variables. Consequently, it can be concluded that there is absence of multi co-linearity between the variables employed in the model.

4.1.3 Fixed/Random Effects Regression Tests

The fixed/random effects regression technique is employed in determining the cause and effect relationships existing between the variables in the model. It is geared towards determining the extent to which an independent variable affects the dependent variable, especially in the case of panel data estimation. The choice of the appropriateness of the model is determined through the employment of a Hausman's Test. The decision rule is to adopt the fixed effect model if the probability value (p-value) of the Chi-square statistic is less than 0.05, otherwise the random effects model is more appropriate.

Table 4.3 Hausman's Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	13.754014	5	0.0172

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
DPR	-0.012519	-0.016063	0.000443	0.8663
BDE	0.001275	0.006259	0.000028	0.3471
WAE	0.360445	0.292909	0.000438	0.0013
CLE	-0.086776	-0.049563	0.001224	0.2876
PENS	-0.004676	-0.000678	0.000038	0.5179

Dependent Variable: ROA

Sample: 2013 2019

Periods included: 7

Cross-sections included: 41

Total panel (unbalanced) observations: 286

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.614748	0.529323	-4.939793	0.0000
DPR	-0.012519	0.073901	-0.169397	0.8656
BDE	0.001275	0.016237	0.078546	0.9375
WAE	0.360445	0.060256	5.981859	0.0000
CLE	-0.086776	0.092503	-0.938083	0.3491
PENS	-0.004676	0.034543	-0.135374	0.8924

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.645664	Mean dependent var	-0.793706
Adjusted R-squared	0.579226	S.D. dependent var	6.124104
S.E. of regression	3.972526	Akaike info criterion	5.743007
Sum squared resid	3787.431	Schwarz criterion	6.331034
Log likelihood	-775.2500	Hannan-Quinn criter.	5.978706
F-statistic	9.718310	Durbin-Watson stat	1.096277
Prob(F-statistic)	0.000000		

Source: Researcher's Computation, (2021)

In Table 4.3, the Chi-Square statistic is given as 13.174 with a probability value (p-value) of 0.017. Since the p-value of 0.017 is less than 0.05, the fixed effects regression model is considered the most suitable. Thus, the fixed effects regression test is employed to test the first model.

Table 4.1.4 Fixed Effects Regression Test

Dependent Variable: ROA
 Method: Panel EGLS (Cross-section weights)
 Sample: 2013 2019
 Periods included: 7
 Cross-sections included: 41
 Total panel (unbalanced) observations: 286

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPR	0.001349	0.001253	1.076659	0.2827
BDE	0.000742	0.000218	3.401682	0.0008
WAE	0.000821	0.000611	1.344995	0.1799
CLE	0.016216	0.001062	15.26345	0.0000
PENS	-0.000512	0.000297	-1.726434	0.0856
C	-0.019162	0.006767	-2.831899	0.0050

Effects Specification			
Cross-section fixed (dummy variables)			
Weighted Statistics			
R-squared	0.860322	Mean dependent var	0.101164
Adjusted R-squared	0.834132	S.D. dependent var	0.186748
S.E. of regression	0.069084	Sum squared resid	1.145433
F-statistic	32.84974	Durbin-Watson stat	1.886647
Prob(F-statistic)	0.000000		

Source: Researcher’s Computation, (2021)

In Table 4.4, the result indicates that the independent variables determine 83.4% of the variations in the ROA of quoted industrial goods firms. Also, the F-statistic of 32.850, which has a p-value of 0.000, is statistically significant at 1%, and is an indication that the model has a very high goodness of fit. In addition, the t-statistics also reveal that estimates for warranty liabilities (WAE), estimates for contingent liabilities (CLE), and estimates for pension liabilities (PENS) have significant effects on ROA while estimates for depreciation (DPR) and estimates for bad and doubtful debts (BDE) are insignificant. Lastly, the result of the Durbin Watson statistic, which is 1.887, is closer to 2.0; and suggests the unlikelihood of serial correlation in the model estimate.

4.2 Test of Hypotheses

The hypotheses formulated in the earlier of this study were tested using the t-test. The decision rule was to reject the null hypothesis if the probability value (p-value) of the t-statistic is less than or equal to 0.05, otherwise it cannot be rejected. The results of the hypotheses test as well as the inference made are presented as follows:

Test of Hypothesis One: Hypothesis One stated that: “estimates for depreciation do not have significant relationship with return on assets of listed consumer and industrial goods firms in Nigeria”. The result of the hypothesis test, which is shown in Table 4.4 showed a t-statistic and p-value of 0.2148 and 0.8301, respectively. Since the p-value of 0.8301 is greater than 0.05, the null hypothesis cannot be rejected. Thus, it is concluded that estimates for depreciation do not have significant effect on the return on assets of quoted industrial goods firms in Nigeria.

Test of Hypothesis Two: Hypothesis Three stated that: “estimates for bad and doubtful debts do not have significant relationship with return on assets of quoted industrial goods firms in Nigeria”. The result of the hypothesis test, which is shown in Table 4.4 showed a t-statistic and p-value of -1.3364 and 0.1827, respectively. Since the p-value of 0.1827 is greater than 0.05, the null hypothesis cannot

be rejected. Thus, it is concluded that estimates for bad and doubtful debts do not have significant relationship with return on assets of quoted industrial goods firms in Nigeria.

Test of Hypothesis Three: Hypothesis Five stated that: “estimates for warranty liabilities do not have significant relationship with return on assets of quoted industrial goods firms in Nigeria”. The result of the hypothesis test, which is shown in Table 4.4 showed a t-statistic and p-value of 2.1145 and 0.0355, respectively. Since the p-value of 0.0355 is less than 0.05, the null hypothesis is rejected. Thus, it is concluded that estimates for warranty liabilities have significant relationship with return on assets of quoted industrial goods firms in Nigeria.

Test of Hypothesis Four: Hypothesis Seven stated that: “estimates for contingent liabilities do not have significant relationship return on assets of quoted industrial goods firms in Nigeria”. The result of the hypothesis test, which is shown in Table 4.4 showed a t-statistic and p-value of 2.8028 and 0.0055, respectively. Since the p-value of 0.0055 is less than 0.05, the null hypothesis is rejected. Thus, it is concluded that estimates for contingent liabilities have significant relationship with return on assets of quoted industrial goods firms in Nigeria.

Test of Hypothesis Five: Hypothesis Nine stated that: “estimates for pension liability do not have significant relationship return on assets of quoted industrial goods firms in Nigeria”. The result of the hypothesis test, which is shown in Table 4.4 showed a t-statistic and p-value of -2.2668 and 0.0243, respectively. Since the p-value of 0.0243 is less than 0.05, the null hypothesis is rejected. Thus, it is concluded that estimates for pension liability have significant relationship with return on assets of quoted industrial goods firms in Nigeria.

5.1 CONCLUSION

Being an integral component of financial statement, financial estimates of items of uncertain values do not only affect the quality of financial statement but significantly reveals the authenticity or otherwise of reported results of corporate entities. Accounting for estimation uncertainties have been found to be veritable tool in the hands of management in manipulating performance outcomes either to meet pecuniary objectives or defraud shareholders, lower taxation and mislead other stakeholders. Sometimes, the abuse of accounting estimates by managers is intended to achieve performance based targets and the consequential benefits. This fraudulent and criminal over or under statement of financial statement inputs of uncertain values adversely affects the users of the financial information and the company itself. The act conceals the true state of affairs in the company and sets it on the disastrous path of failure. The manipulation of accounting estimates therefore negatively affects shareholders, management, the government, creditors, employees and other stakeholders in the company. Managers of corporate businesses should therefore ensure accounting for estimation uncertainties is done in strict compliance with relevant IFRSs and subjected to severe external audit scrutiny.

5.2 RECOMMENDATIONS

1. Accounting estimates should be recognized and measured in strict compliance with the prescription of applicable IFRSs and the requirements of national regulatory authorities and the Nigerian Stock Exchange.
2. Since the abuse of accounting estimates undermines the interest of stakeholders in an entity and results in corporate failures with its attendant economic losses, government should come up with laws that criminalizes abuse of accountings with very stringent punitive measures. This will discourage unethical behaviour among managers with regards to misuse of accounting estimates.
3. Management should ensure that adequate and sufficient disclosures of recognition and measurement criteria of accounting estimates, management judgment and approximations in line with the provisions of the applicable IFRSs in order to gain investors' confidence and secure potential investment opportunities that will further increase performance.
4. A useful multi-purpose financial information is one that is free from management biases. Accounting judgments should not be driven by pecuniary interest that based on high fictitious profit. In doing this, management should take into account the interest of shareholders and other stakeholders.

5. In order to prevent abuse of the use of accounting estimates, firms should ensure that the preparers of its financial statements have adequate and up to date knowledge on the requirements of relevant IFRSs on all components of accounting estimates. Management team and staff of the accounting department involved in the preparation of the financial statements of the firm should undergo regular training and retraining programmes to keep abreast of current requirements on the recognition and measurement of accounting estimates.
6. Accounting estimates generated by management should be subjected to external audit scrutiny to ascertain their appropriateness and objectivity. A competent external auditor with wide range of experience and skills in financial statement audit should be appointed by the board. In-depth audit scrutiny of provisions should be able to reveal abuse and manipulation of accounting estimates for personal ends.
7. The board should ensure that corporate governance practices are established and enforced to check unethical practices among the management team.

REFERENCES

- Abubakar, Y. & Olowe, G.J. (2019). Accounts receivable management and financial performance of selected quoted firms in Nigeria. *International Journal of Research and Scientific Innovation (IJRSI)*, VI (IV), 141-145.
- Ahmed, A.; Mohammed, A.Y. & Adisa A.O (2014). Loan loss provision and earnings management in Nigerian money deposit banks. *Mediterranean Journal of Social Sciences*, 5(17); 49-56
- Akenbor, C.O & Kiabel B.D (2014). Accounting estimates and credibility of financial statement in the hospitality industry in Nigeria; *Mustang Journal of Accounting and Finance*, 9(6) 98-107
- Akwu, O.D., Ofoegbu, G.N & Okafor, R.G. (2017). Fair value measurement, depreciation and profitability of listed manufacturing companies in Nigeria. *International Journal of Scientific Research and Innovative Technology* 4 (9), 153-176
- Ali R, Muhammad F. & Muhammad A. (2011). Leasing industry in Pakistan; a comparison of financial performance of leasing companies. *International Journal of Business and Social Science*. 2(10), 23-41
- Anichebe A.S. & Nangih, E. (2021). Accounting estimates and material misstatements in financial reports in Nigeria. *Journal of Accounting and Financial Management*, 7 (3), 51-62
- Asechemie, D.P.S (1996). *Elements of corporate financial accounting and reporting*. Port Harcourt, Nigeria. University of Port Harcourt Press.
- Ayunku, P.E & Eweke G.O. (2019). Accounting estimates and financial reporting quality: evidence from quoted deposit money banks in Nigeria. *Federal University of Otuoke Journal of Management Sciences*, 3 (1) 41-51.
- Bawa, S., Asamoah, G.E & Kissi, E. (2018). Impact of inventory management on firm performance: a case study of listed manufacturing firms in Ghana. *International Journal of Finance and Accounting*, 7(4), 83-96
- Belsoi, V., Gathii, J. & Ragama, P. (2017). Effect of estimation on financial performance of microfinance enterprise in Nakuru Town. *Mara Research Journal of Business and Management*, 2(2), 9-18
- Bhattacharyya, A.K. (2011). *Financial accounting and reporting; a practical guide*. Second Edition. PHI Learning, Private Limited, New Delhi-110001
- Bowen R.M, Rajgopal S., & Venkatachalam, M. (2015). Accounting discretion, corporate governance and firm Performance. *A publication of the University of Washington*.
- Chukwu, G.J & Egbuhuzor C.A (2017). Tangible assets and corporate performance: evidence from manufacturing industry in Nigeria. *Research Journal of Financial Sustainability Reporting*, 2 (1) 271-277
- Chukwu, N.A, Ohaka J & Nwanyanwu, L.A (2017). Intangible assets and market value of quoted money deposit banks in Nigeria. *Uniport Journal of Business, Accounting and Finance Management*, 8 (1) 184-199
- Chukwu, G.J. (2006). *Accounting Standards; an illustrative approach to SASs, IASs and IFRSs*. Anso Publishing Company, Port Harcourt.
- Gamayuni, R.R (2015). The Effect of intangible asset, financial performance and financial Policies on the firm value. *International Journal of Scientific & Technology Research* 4(01), 202-212

- IASB (2015). The conceptual framework for financial reporting. Exposure Draft ED/2015/3. IFRS Foundation
- Indrayani, R. (2018). Analysis use of fixed assets depreciation method on company profits. *The Accounting Journal of BINANIAGA*, 03(01), 59-66
- International Financial Reporting Standards Foundation (2015). IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors in A Briefing for Chief Executives, Audit Committees & Boards of Directors
- International Financial Reporting Standards Foundation (2015) IAS 38 Intangible Assets and IAS 16 Property, Plant and Equipment in A Briefing for Chief Executives, Audit Committees & Boards of Directors
- International Auditing and Assurance Standards Board (2010). *ISA 540-Auditing accounting estimates, including fair value accounting estimates, and related disclosures*. London: IASB
- Jensen, M.C. & Meckling, W.H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of financial economics*. 3 (4), 305-360.
- Kanakriyah, R. (2016). Voluntary disclosure and its effect on the quality of accounting information according to users' perspective in Jordan. *American Journal of Business, Economics and Management*,4(6):134-146
- KPMG (2015). Getting accounting judgments and estimates right : board perspectives, Retrieved from <https://boardleadership.kpmg.us/content/dam/blc/pdfs/2014/accounting-judgments-estimates-board-perspectives.pdf>
- Longe O.A & Kareem (2012). *Essential financial accounting*. Tonad Publishers Limited Nigeria
- Lubyanaya, A.V, Izmailov, A.N., Nikulina E.Y & Shaposhnikov, V.A (2016). Evaluation of the effect of non-current fixed assets on profitability and asset management efficiency. *International Journal of Environmental & Science Education*, 11(15), 7745-7753
- Lugovsky, D. & Kuter, M. (2020). Accounting policies, accounting estimates and its role in the preparation of fair financial statements in digital economy. *Springer Nature Switzerland* 78; 165–176
- Mert H. & Dil, S.E. (2016). Effects of depreciation methods on performance measurement methods: a case of energy sector. *Journal of Economics, Finance and Accounting*, 3 (4), 330-344
- Nangih, E (2018). Nexus between creative accounting practices and financial statements quality in Nigeria: a reflection of oil servicing companies in Port Harcourt metropolis. *Journal of Accounting and Financial Management*. 3 (4), 16-23
- Nangih, E., Onuora, J.J.K., & Okafor, G. O (2021). Accounting estimates and financial performance of listed Non-financial firms in Nigeria. *Journal of Accounting, Business and Social Sciences*. 4(1), 15 -37
- Nangih, E. & Anichebe, A. S. (2021). Accounting estimates and misstatements in financial reports in Nigeria: A survey of small and medium enterprises. *Journal of Accounting and Financial Management*. 7(3), 50 -59
- Nnah G. N. (2017). Accounting estimates and financial reporting quality of quoted manufacturing companies in Nigeria. *A PhD Theses of the Rivers State University, Port Harcourt, Unpublished*.
- Nwangi, L. (2016). The Effect of inventory management on firm profitability and operating cash flows of Kenya Breweries Limited, in Nairobi. *An unpublished Research Project Submitted in Partial Fulfillment of the Requirements for the Award of the Degree of Master of Science in Finance, School of Business, University of Nairobi*
- Okwo, I. M., Ugwunta, D. O. and Nweze, A. U. (2012). Investment in Fixed Assets and Firm Profitability: Evidence from the Nigerian Brewery Industry, *European Journal of Business and Management*, 4(20):10-17.
- Olaoye, F.O & Adeniyi, A. (2020). Effect of accounting manipulations on performance of selected listed firms in Nigeria. *American Scientific Research Journal for Engineering, Technology and Sciences*, 63 (1), 158-170
- Okpara, U.C & Ifurueze, M.S. (2020). Effect of Financing Mix On Corporate Profitability of Selected Brewery and Beverage Industry in Nigeria. *Journal of Accounting, Business and Social Sciences*, (3) 1, 31-48

- Prempeh, K.B. (2015). The impact of efficient inventory management on profitability: evidence from selected manufacturing firms in Ghana. *Online at <https://mpra.ub.uni-muenchen.de/67889/> MPRA Paper No. 67889*
- Raubenheimer, E. (2012). Accounting estimates in financial statements by some South African construction companies. *Journal of Economic and Financial Sciences*, 6 (2), 383 – 400.
- Sacer, I.M, Malis S.S. & Pavic, I. (2016). The Impact of accounting estimates on financial position and business performance – case of non-current intangible and tangible assets. *Procedia Economics and Finance* 39, 399 – 411
- Serdarevic, N. (2011). Accounting policies and financial analysis interdependences-empirical evidence. *Economic Review-Journal of Economics and Business* IX (I), 17-30