Deferred Tax Accounting and Financial Performance of Listed Consumer Goods' Manufacturing Companies in Nigeria

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ABSTRACT

This research examines the relationship between deferred tax accounting and financial performance of listed consumer goods' manufacturing companies in Nigeria using data from 19 listed consumer goods companies selected judgmentally. The study adopts the panel regression technique to test three hypotheses stated in line with the specific objectives. Findings from the study revealed that, deferred tax asset and liability have a positive non-significant relationship with return on assets of listed consumer goods' manufacturing companies in Nigeria. Further findings revealed that, deferred tax asset has positive non-significant relationship with leverage of listed consumer goods' manufacturing companies in Nigeria, while, deferred tax liability has a negative non-significant relationship with leverage of listed consumer goods' manufacturing companies in Nigeria. Finally, the study revealed that deferred tax asset has a positive non-significant relationship with earnings per share of listed consumer goods' manufacturing companies in Nigeria, while, deferred tax liability has a negative non-significant relationship with earnings per share of listed consumer goods' manufacturing companies in Nigeria. Hence it recommends that companies in Nigeria should look into available tax credits for particular assets and explore the possibility of taking advantage of such tax credits in order to reduce tax burden through tax deferment. Also, that the companies' managers should always consider choosing the right capital combination, as it is imperative that the managers and tax planners explore tax incentives and investments that attract less taxes.

Keywords: *Deferred Tax, Financial Performance, Nigeria Stock Exchange, Consumer Goods, Manufacturing Companies.*

Introduction

According to Abiola, James, & Asiweh, (2012), one very important mandates for tax managers in organizations is to devise means of reducing overall tax liability for the organization.

Savka and Radojko (2013), on their part posited that deferred tax is an aspect of effective tax planning and strategies that maximizes the firm's expected discounted after-tax cash flows. It is

important that tax consultants of any organization should have good knowledge of the organization's history and its operational modules so as to project its deferred taxes (John, Samuel & Holy, 2013). The coordination of the entities' partners who have diverse interests and information, involving domestic and foreign operations across multiple segments of the business, including finance and financial reporting, management and technology is also essential (Junaidu & Hawau, 2018).

For purposes of correcting potential due influence of income taxes on the financial performance of firms during tax planning, the importance of deferred tax is obvious. (Citron, 2014). Ogundajo and Onakoya (2016), posted that the concept and content of deferred tax has a certain history, development and experience in Nigeria but it cannot be said that in its practical application it is a self-evident and seamless part of current financial report. The duo also stated that even though deferred tax appeared in Nigerian firms accounting reports for the first time in the early 1990s, it became more widely known to accounting when Nigeria keyed into the use of financial reporting standards of the International Accounting Standard Board (IASB). This period marked the beginning of drawing up in full format of financial statements with expressed provisions for deferred taxes, as it eliminates distortions of accounting profit or loss due to the effect of different tax conditions for the inclusion of accounting expenses or revenues to the income tax base (Ogundajo & Onakoya, 2016).

The insufficient knowledge of deferred tax owing to its late appearance in Nigerian firms' accounting reports, and the adoption of the International financial Reporting Standard (1FRS) have thrown light to the distortions and ambiguity in its application. Since the adoption of IFRS, all accounting entities are obliged to draw up financial statements that include accounting for deferred tax. This is a vital aspect of accounting methodology for deferred tax as deferred tax accounting eliminates distortions of accounting profit or loss (Nwaorgu, Abianhu, Arzizeh & Iormbagah, 2019).

Vacha (2012), stated that IFRS has it that the temporary differences may include both time differences applied in the final financial statements and differences that have not passed through the profit and loss statement (e.g. revaluation of assets in the case of contribution or conversion). Teraoui and Kaddour (2012), also asserted that the basis for calculating deferred tax is the fact that firms rely on the statement of financial position and confront the tax and accounting value of the statement of financial position items of those assets and liabilities that may be subject to differences. The deferred tax calculated from these differences is applied in future period. At the same time, the expenditure (or the expenditure savings) on the deferred income tax is recognized in the income statement (Onuorah and Chigbu (2013).

Literature Review

Chludik (2011), argues that the temporary differences of deferred tax includes both time differences applied in the final financial statements and differences that have not passed through the statement of comprehensive income since deferred tax is but a projection of what is probable to occur. The deferred tax projection in the current period will limit the distribution of the parts of profit that were not subject to due income tax to funds created from the profit or loss among shareholders (Nwaogu et al., (2019). This is a major issue that comes with accounting for deferred tax by companies.

Quite a number of investigations had been conducted on the interrelationship between deferred tax

and financial performance of companies in developed and developing countries in recent time. Nwaorgu et al., (2019); Uwuigbe, (2016); Mayeenda, (2013); Ogundajo and Onakoya, (2016); Gatsi, Gadzo and Kportorgbi, (2013); Akinyomi and Tasie$_T$ (2011), all conducted researches on deferred tax and financial performance of companies but concentrated on deferred tax liability. The various arguments by authors and application of standards have created a lacuna for future application of effective tax planning in the form of a deferred tax considering only deferred tax liabilities. These studies from Africa do not take into account the deferred tax asset that is exceptionally accounted for provided that there is a sufficiently high tax base in the future against which assets could be applied.

The purpose of this study is to highlight the complexity, in the wider context, in relation to the necessity of firms' financial performance. This research therefore examines the relationship between deferred tax and financial performance of consumer goods' manufacturing companies in Nigeria in line with the various theories and concepts of deferred tax with which will help to narrow the gap in the differences in findings obtained by previous authors.

The main objective of this research is to examine the relationship between deferred tax and the financial performance of listed consumer goods' manufacturing companies in Nigeria, while the specific objectives are as follows to: (i) examine the relationship between deferred tax (deferred tax assets and deferred tax liability) and return on assets of listed consumer goods' manufacturing companies in Nigeria. (ii) Ascertain the relationship between deferred tax (deferred tax assets and deferred tax liability) and the leverage of listed consumer goods' manufacturing companies in Nigeria. (iii) Determine the relationship between deferred tax (deferred tax assets and deferred tax liability) and the earnings per share of listed consumer goods' manufacturing companies in Nigeria.

The International Accounting Standard (IAS) 12 conceptualizes deferred tax as the value of income tax payment which is delayed for payment in future period. Halim, Veysel and Baykut (2015), referred to deferred tax as deferred tax assets and deferred tax liabilities. David (2003), posited that the liability aspect of deferred tax is the revenue generated for accounting purposes and not for tax purposes. He further stressed that deferred tax liability recognizes future taxes due when earned income is later reported for tax purposes. The inclusion of deferred income taxes as a liability on a company's statement of financial position is to complement the use of accelerated depreciation for revenue reporting services and straight-line depreciation reporting to shareholders (Goh. Lee. Urn & Shevlin, 2013). In the financial statement of a company, deferred tax is regarded as a tax that a company owes, but has not yet been assessed (Halin, et al., 2015). While on their part, Chang, Herbohn and Tutticci (2009), asserted that deferred tax is a construct of financial reporting, the purpose being to account for future tax effects that will arise due to different recognition and measurement principles of accounting standards and tax law (Handon 2005). A deferred tax liability is the estimated future tax increase related to book income (Nwaorgu, et al., 2019). It is a tax liability that is created when an expense is deductible for tax purposes in the current period but is not deductible for book income until some future period, or when revenue is includible for book purposes but not for taxable income until a future period (Bauman & Shaw, 2016). According to Barth, Beaver, and Landsman (1998), a common deferred tax liability component includes book-tax depreciation differences (accelerated for tax purposes), installment sales, and undistributed or reinvested foreign earnings.

Purina (2016), opined that when a similar procedure can be applied in the event of an obligation to reevaluate assets and liabilities to facilitate transformations, the differences between the

accounting and the fair value of the revalued asset are recorded in the acquiring company by a separate item of equity (gains and losses from revaluation in the course of transformations of business corporations

Measurement/Recognition of Deferred tax

Recognition of, and changes in deferred taxes generally affect book income through deferred tax expense, yet changes in deferred taxes are recognized directly in equity. That is, are income neutral if the underlying transaction or event which causes the book-tax difference is recognized outside profit or loss? (IAS 12.58). Deferred tax liabilities arises generally from financially recorded income that has not yet been taxed, for example in the case of accelerated tax depreciation, where taxable income is deferred to a future period by tax depreciation rates that exceed book depreciation rates.

Purina, (2016), reports that the average pension discount rate used in consolidated financial statements of German firms is 5.24 percent, whereas German tax law requires a fixed discount rate of 6 percent. In contrast, temporary book-tax differences in provisions reflect fixed differences in tax law and accounting principles, since provisions are recognized under IAS 37 for liabilities of uncertain timing or amount, whereas these liabilities are generally not relevant for tax purposes until payable amounts are actually fixed.

Empirical evidence on whether financial statement users take deferred tax information into account is rather inconclusive. Using similar data, Amir, et al. (1997), and Ayers (1998), provides evidence consistent with the liability view and the market discounting deferred tax components according to their expected time and likelihood of reversal, while Chang, et al. (2009), using Australian data, finds only deferred tax assets to be value-relevant and affects the firm financial performance. By contrast, Chludek (2011), provides evidence consistent with the equity view by showing that deferred taxes and stock risks are related negatively.

Haskins & Simko (2011), argues that deferred tax asset is an accounting term on a firm's statement of financial position that is used to illustrate a firm’s overpaid taxes that are due for some form of tax reliefs. On their part, Heitzman & Ogneva, (2015), argues that with deferred tax, the firm will have either paid taxes early or have paid too much tax thereby making it entitled to some money back from the tax authorities

Chludek, (2011), asserted that there is deferred tax asset if recovery of carrying amount of assets or settlement of carrying amount of liabilities makes future tax payments smaller than that of the recovery or settlement with no tax implications. He went on to state that deferred tax assets are created due to taxes paid or carried forward but not yet recognized in the income statement.

Deferred tax liabilities are the amounts of income taxes payable in future periods in respect of temporary differences (Akinyomi & Tasic. 2011). As stated, Nwaorgu, et al, (2019), deferred tax liability is recognized for temporary differences that will result in taxable amounts in future years. For example, a temporary difference is created between the reported amount and the tax basis of an installment sale receivable if, for tax purposes, some or all of the gains on the installment sale will be included in the determination of taxable income in future years. Because amounts received upon recovery of that receivable will be taxable, a deferred tax liability is recognized in the current year for the related taxes payable in future years.

The concept of financial performance has raised a concern among eminent scholars in diverse aspects of business and strategic management (Jat. 2006). Financial performance is therefore the application of organized methods of science in analyzing profitability and financial strength of any business organization (Chigbu, Eze & Ebimobowei, 2011).

According to Myers (2001), performance measures can be grouped into two basic types; those

that relate to results (outputs or outcomes such as competitiveness or financial performance; and those that focus on the determination of the results (inputs such as quality, flexibility resource utilization, and innovation). This suggests that performance measurement framework can be built around the concepts of results and determinants. According to Berger and Patti (2002), the measures of firm performance are usually ratios fashioned from financial statements or stock market prices, such as industry-adjusted operating margins or stock market returns. This agrees with Pandey (1995), assertion which assumes that profit maximization causes the efficient allocation of resources under the competitive market conditions, while profit is considered as the most appropriate measure of a firm's performance. Hill and Jones (2009); Girish, Harsh and Nidhi (2014), also asserted that the key measure of a company's financial performance is its profitability. Thus, ratios of financial efficiency in this respect focus on the relationship between profit and sales and profit and assets employed. Second, the company's financial performance may be assessed in terms of the value of its shares to investors or the leverage ratio as it pertains to the firm's ability to repay its obligations (Ilaboya, Izevbekhai & Ohiokha, 2016).

Return on assets is measured by profit tax as total assets. Firms with more stable cash flows are more profitable and they prefer to use debt as they have more debt servicing capacity and more profit from tax shield (Myers, 2001). Likewise profitability, firms having free cash flows should gain from debt to meet their requirements, and should not waste free cash flow to maintain firm liquidity (Modigliani & Miller, 1963). Jensen (1986), empirically proved that there is a negative relationship between tax deductions and profitability, although the advent of deferred tax assets consideration has changed this notion (Nwaorgu, et al., 2019).

Leverage is considered as a negative debt since it reduces the need to take on debt. As stated in Alza and Hussain (2011), such negative relationship eliminates potential conflicts between debt holders and shareholders considering various tax plans of the firms.

Earnings per share plays an important role in showing the firm's tendency whether it grows or terminates its operation (Filip & Raffoumier, 2010). The duo asserted that using the valuation model, a firm can measure the creation of equity capital investment as the continuation or termination of the firm's operation framework. On the other hand, book value can be viewed as a proxy for expected future earnings for loss firms (Graham & Lean 2011).

Lederman,(2002), stated that a firm's earnings represents a measure of the change in the value of the firm to common equity shareholders during a period and is given by revenues minus cost of sales, operating expenses and taxes over a given period.

There are two opposing theories with respect to the value relevance of deferred taxes; liability view versus equity view. While proponents of the liability view argues that deferred tax liabilities and deferred tax assets account for future tax liabilities or future tax benefits, and should therefore contribute negatively or positively to firm value, proponents of the equity view reasons that associated cash flows are highly uncertain, with a present value close to zero, and deferred taxes should therefore be of no value relevance (Miller & Skinner, 1998). For these reasons, proponents of the equity view argues that deferred taxes account principally for distant and - in several dimensions - uncertain cash flows, being of no or only little relevance for the amount of tax payments in the next years of the associated cash flows having a present value that is close to zero. Therefore, deferred taxes are effectively art of equity according to this view (Musgrave & Musgrave, 2004).

This research is actually anchored on the ability to pay theory as propounded by Adam Smith in 1776, which states that "taxes are based on taxpayers' ability to pay". The ability to pay theory, in line with firms tax deferment action is stemming from the idea that firms, in

making their tax plans take into consideration the available firms' resources; ranging from profit made, assets structure and tax incentives and credits.

Mear, Bradbury and Hooks (2020), compared the value relevance of the recognised deferred tax elements under International Accounting Standard 12 (IAS 12). Income Taxes (balance sheet method) relative to the taxes payable (flow through) method. They also investigates the value relevance of the IAS 12 deferred tax disclosures, using standard valuation models to examine the association between share price and the recognised amounts and footnote disclosures of IAS 12.

Nwaorgu, Abianhu, Tapang and lormbagah (2019), examined the effect of deferred tax accounting on financial performance of listed agricultural firms in Nigeria, employing ex-post facto research design using data from four quoted agricultural firms. The data span across 7 years ranging from 2011-2017 and which was analyzed using simple linear regression. Their findings revealed that deferred tax accounting has a positive and significant relationship with the profitability of the listed firms. Also, that deferred tax has no statistical significant effect on both the cash flow and earnings per share of the listed agricultural firms in Nigeria. They opined that, firms in Nigeria should make tax planning as part of the firm's strategy and financial planning by employing effective accounting for deferred tax due to the complexity of current accounting standard for deferred tax. The study finally recommends that accounting standard developers should come up with a clear and precise rule for deferred tax accounting that will enable uniformity and seamless accounting for deferred tax by all firms.

Junaidu and Hauwa (2018), in their study assessed the effect of company income tax on the financial performance of listed consumer goods companies in Nigeria from 2006-2016, using regression analysis to establish the effect of corporate tax on financial performance of the firms. They found out that there is an insignificant negative relationship between corporate tax and financial performance using return on assets as a measure.

Touyo and Adeusi (2018), evaluated the impact of tax obligations on the performance of listed manufacturing companies in Nigeria using ex-post facto research design. Data collected were analyzed using Ordinary Least Square regression from which inferences and conclusion were drawn from the result of the analyzed data. The result of the analysis revealed that company income tax has a negative impact and statistically significant relationship to return on assets of listed manufacturing companies in Nigeria; company income tax has a positive but statistical insignificant relationship to profit before tax, and a negative but statistical significant relationship to earnings per share.

Lukic (2018), analysed the impact of deferred taxes on the performance of trading companies, with special insight into Serbia. Empirical analysis using linear regression shows that deferred taxes are significant factors of performance of trading companies in countries with developed market economies. All these suggests that managers of trading companies must efficiently manage deferred taxes (liabilities) in order to achieve the target profit.

Akinyomi and Tasie (2011), examined the impact of tax incentives on the overall performance of registered small and medium scale industries in Rivers State, Nigeria. The study randomly selected eleven out of the twenty two registered small and medium scale food and beverages manufacturing industries in Rivers State and questionnaire was administered to 260 respondents in the selected companies. The study employed Chi-Square in the analysis and test of hypothesis. The findings revealed that there are various tax incentives available to small scale industries and the operators in these industries are very familiar with them. It was also discovered

that tax incentives significantly affect the profitability, staff strength, growth and their development positively. Their conclusion was that tax incentives have effect on the perfect economic performance of small scale industries.

Methodology

This study adopts the ex-post facto research design, a research design which involves the ascertainment of the impact of past factors on the present happenings or events and dealing precisely with secondary data that is numerically measurable. Furthermore, the research design is adopted because of its strength as the most appropriate design to use when it is impossible to manipulate all or any of the variables, or when laboratory control will be impracticable, costly or ethically questionable (Akpa & Angahar, 1999).

Model Specification

The research adapted the Nwaorgu, et al., (2019) model, and thereafter modified.

$$\mathbf{PROF_{ii} = a + \beta_1 DTAX_{it} + U_{it}}$$

$$\mathbf{CFO_{it} = a + + \beta_1 DTAX_{it} + U_{it}}$$

$$\mathbf{EPS_{it} = a + + \beta_1 DTAX_{it} + U_{it}}$$

The modified version of this study:

$$ROAit = a + \beta_1 LOGDTA_{ii} + \beta_1 LOGDTL_{it} + Uit \ldots\ldots\ldots\ldots\ldots (i)$$

$$LEV_{it} = a + \beta_1 LOGDTA_{it} + \beta_1 LOGDTLu + Uu \ldots\ldots\ldots\ldots (ii)$$

$$EPSit = a + \beta_1 LOGDTA_{itJ} + \beta_1 LOGDTLit + Uit \ldots\ldots\ldots\ldots (iii)$$

Where;

a = Constant; **ROA=** Return on assets; LEV = Leverage;
EPS = Earnings per share; **LOGDTA** = Log of Deferred Tax Asset
LOGDTL = Log of Deferred Tax Liability; π= **Cross-section** (j) at time ($_i$); U= Error term used in the model.
β = CAPTOIL coefficient of the independent variable.

Decision Rule: Accept the null hypothesis if the calculated value is greater than the significant level of 0.05.

Data Analysis

With the use of E-view version 9, we analyzed the data collected as shown below.

Descriptive statistics

The descriptive statistics for both the dependent and independent variables are presented below. Table 1.

	LOGDTA	LOGDTL	ROA	LEV	EPS
Mean	5.577517	5.629476	0.085747	0.324172	1.626667
Median	5.414541	5.619830	0.040611	0.261279	0.645000
Maximum	7.807889	7.874419	0.459459	0.991418	9.760000
Minimum	3.710202	3.079904	0.002969	0.003143	0.020000
Std. Dev.	1.035834	1.003555	0.093432	0.251884	2.032950
Skewness	0.240609	-0.115852	1.875356	0.846643	2.G22782
Kurtosis	2.154595	2.735787	6.162583	2.917612	6.84i405
Jarque-Bera	4.494832	0.586602	114.3314	13.65154	147.8342
Probability	0.105672	0.745798	0.000000	0.001085	0.000000
Sum	635.8370	641.7602	9.775104	36.95561	185.4400
Sum Sq. Dev.	121.2437	113.8049	0.986430	7.169355	4949897
Observations	114	114	114	114	114

114

Source: E-View 9

Table 1. Presents the descriptive statistics of all the variables. Number of observations (N) is 114.

The result reveals that, deferred tax asset (LOGDTA) reflects a mean of 0.5.577517 with a deviation of 1.035834. LOGDTA also revealed a maximum value of 7.807889 and a minimum value of 3.710202. Also, deferred tax liability (LOGDTL) reflects a mean of 0.5.629476 with a deviation of 1.003555. LOGDTL also revealed a maximum value of 7.874419 and minimum value of.3.079904. The return on asset (ROA) has a mean of 0.085747 with a deviation of 0.093432. Furthermore. ROA records a maximum and minimum value of 0.459459 and 0.002969. Result also reveals that leverage (LEV) reflects a mean of 0.324172 with a deviation of 0.251884. LEV also revealed a maximum value of 0.991418 and a minimum value of 0.003143. Earnings per share (EPS) reveal a mean of 1.626667 with a deviation of '092950. EPS further revealed a maximum and minimum value of 9.760000 and 0.02000 respectively. To test for normality of data, the Skewness statistic is used. The ratio of skewness to its standard error can be used as a test of normality. According to Berenson and Levine, (1999), you can reject normality if the ratio is less than -2 or greater than +2. A large positive value for skewness indicates a long right tail: an extreme negative value indicates a long left tail; which is an indication of non-normality of data.

The data set for all the variables reveal skewness statistic values that are between the range of approximately -2 and +2. This means that the data set are not too disperse from the mean to cause non normality issues.

Correlation analysis

This section of the chapter presents in the table below the result of the correlation analysis between the independent variables.

Table 2 Correlation

	ROA	LEV	EPS	LOGDTA	LOGDTL
ROA	1				
LEV	-0.2662	1			
EPS	0.2601	-0.0115	1		
LOGDTA	-0.1381	-0.0026	-0.2067	1	
LOGDTL	0.0912	-0.0325	0.0626	0.6809	1

Source: E-View 9

Table 2 shows the correlation values of all the variables to ensure the test for multicolinearity of the independent variable since they consist of unranked data. Correlation considers two variables at a time to determine how they relate to each other. These types of checks are necessary because high correlation causes problems about the relative contribution of each predictor to the success of the model (Guajariti & Sangeeta, 2007). The correlation matrix above shows the absence of multicollinearity among the explanatory and dependent variables. All the variables show a low correlation with the highest correlation estimated at 0.6sUv (LOGDTA & LOGDTL). Correlation statistics that are above 0.75 is considered harmful for the purpose of analysis (Gujarati and Sangeeta, 2007), but this is not the case with the current studies.

Stationarity/Unit root tests

To further prove the normality of data and to ensure that the data set are stationary in order not to run a spurious regression, unit root test is carried out to ensure that the variables employed in this study are stationary at same unit before further analysis. For this purpose, the Levin, Lin & Chu test and Augmented Dickey Fuller (ADF) test are employed to adjust the variable data to

same unit and if necessary, a differencing test is done to ensure stationary of data. The result of the test is presented in the table below.

Table 3 Unit Root Test Table

Variable	LLC (Common P-1	ADF (Individual P-Value)	Order	Differenc
LOGDT	0.0000	0.0115	1(0)	LEVEL
^LOGDTL	0.0000	0.0023	1(0)	LEVEL
ROA	0.0000	0.0024	1(1)	1st
' LEV	0.0000	0.0054	1 (1)	1st
EPS	0.0000	0.0025	1(0)	LEVEL

Null: There is serial Unit Root in the data

Source: E-view 9

The table above shows the result of the first test required to know the common and individual stationarity of the variables. For the common stationarity test, the Levin Lin Chu (LLC) test 1 for common stationarity is used which considers lag in data series.

For model 1 (ROA=f (LOGDTA & LOGDTL), the unit root test result show a LLC and ADF P-values less than 0.05 for LOGDTA and LOGDTL which depicts common and individual stationarity at level, while ROA has common and individual unit root after 1st differencing. This means that, there is need for cointegration test in order to determine whether the study will adopt an error correction model for long run adjustment.

For model 2 (LEV= f (LOGDTA & LOGDTL), the unit root test result show a LLC and ADF 'P-values less than 0.05 for LOGDTA and LOGDTL which depicts common and individual stationarity at level, while LEV has common and individual unit root after 1st differencing. This means that, there is need for cointegration test in order to determine whether the study will adopt an error correction model for long run adjustment.

For model 3 (EPS=f (LOGDTA & LOGDTL), all the variables show a LLC P-value less than & 0.05 which depicts common stationarity at level (LOGDTA, LOGDTL & EPS). The Augmented Dickey-Fuller (ADF) unit root test result for individual stationarity is interpreted using the p-value to ascertain their level of individual stationarities of the panel variable data. For the individual unit root test, all the variables show an ADF P-value less than 0.05 which depicts individual stationarity at level (LOGDTA, LOGDTL & EPS). This means, the ordinary least square equation can be adopted for model 3.

Ho: There is no co-integration

Table 4. Table for Co-integration Test

S/IM	Statistic	Model ROA	Model LEV
1	Panel v-Statistic Within Dimension	0.3433	0.3600
2	Panel rho-Statistic Within Dimension	0.9819	0.9257
3	Panel PP-Statistic Within Dimension	0.9794	0.0000**
4	Panel ADF-Statistic Within	0.9908	0.0000**

5	Panel v-Statistic (W) Within Dimension	0.7118	0.8650
6	Panel rho-Statistic (W) Within Dimension	0.9595	0.9442
7	Panel PP-Statistic (W) Within Dimension	0.0020**	0.0000**
8	Panel ADF-Statistic (W) Within Dimension	0.0051**	0.0003**
9	Group rho-Statistic Between Dimension	0.9999	0.9994
10	Group PP-Statistic Between Dimension	0.0000**	0.0000**
11	Group ADF-Statistic Between Dimension	0.0026**	0.0000**
	Total	4	6

Source: E views 9

The table above reveal the result of Pedroni co-integration test for the panel data set. To ensure 'the level of cointegration of the data set, II (Eleven) statistics listed in the table above is considered to ensure a more robust test for cointegration using multiple criteria ranging from individual level to group level data. Each panel full group statistic probability value is tested against the Pedroni stated Null hypothesis, the general rule of thumb (>0.05) for null hypothesis acceptance. The highest test, (Decision) will form the basis for conclusion.

Decision: There is no cointegration if the total criteria is less than 6.

In the ROA model, there are eleven test statistics. Out of the 11 cointegration test statistics. 4 of the statistics have probability values of <0.05; that is less than 6 statistics. Therefore, the model reveal that, there is no cointegration of data in the long run. Therefore, the error correction model is adopted for further analysis.

In the LEV model, there are eleven test statistics. Out of the 11 cointegration test statistics, 6 of the statistics have probability values of <0.05; that is equal to 6 statistics. Therefore, the model reveal that, there is cointegration of data in the long run.

Regression of the estimated model summary

Relationship between deferred tax accounting (deferred tax asset & deferred tax liability) and return on assets of listed consumer goods' manufacturing companies in Nigeria.

Table 5. Error correction model table 1

Long run equilibrium	**Coefficient**	**Short run equilibrium**	**Coefficient**
ROA(-l)	1.0000	ROA (-1)	-0.025574
LOGDTA (-1)	0.145372	LOGDTA (-1)	0.010945
LOGDTL (-1)	-0.127751	LOGDTL (-1)	0.000779
ConET	-0.149439	Const	-0.174068

Source: E-View 9

Table 5 above present result of the Vector Error Correction Model (VECM) for LOGDTA. LOGDTL and ROA to test for long run and short run shocks correction as a result of non-cointegration of the data set in model 1 above. The various coefficient values of the short run

equilibrium is compared against the long run equilibrium to ascertain the level of bounce backs in addressing non long run cointegration, the model.

After differencing, the adjustment coefficient (ConET) value of-0.149439 shows that, the previous period deviation from long run equilibrium is corrected in the short run at an adjustment speed of 0.149439. For ROA coefficient, a unit change in ROA is associated with a -0.025574 unit decrease in ROA in the short run Ceteris Paribus against the long run coefficient of 1.0000. For LOGDTA coefficient, a unit change in LOGDTA is associated with a 0.010945 unit increase in LOGDTA in the short run Ceteris Paribus against the long run coefficient of 0.145372. For LOGDTL coefficient, a unit change in LOGDTL is associated with a 0.000779 unit increase in LOGDTL in the short run Ceteris Paribus against the long run coefficient of-0.127751.

Table 6 Panel error correct on model regression for mode) 1

VAR	Coefficient	Probability	Statistic	Value
ROA (C2)	-0.025574		R^2	0.059
LOGDTA(C3)	0.010945	0.6521	R^2 Adjusted	0.006
LOGDTL(C4)	0.000779	0.9786	Fisher Statistic	1.120133
			F Probability	0.353925
Constant (C5)	0.003667	0.6578	DW	1.77940

Source: E-View 9

To ensure that the set of data was free from serial auto-correlation the Durbin Watson statistic for the model specified is computed. The Durbin Watson statistics for the model specified is estimated at 1.779404. The Durbin Watson statistics for the series data is within the standard of 2 indicating the absence of auto-correlation. The Durbin Watson statistics ensures that the residuals of the proceeding and succeeding sets of data do not affect each other to cause the 'problem of auto-correlation. Thus, this model exhibit low risk of potential autocorrelation problem as the model shows a DW statistics of approximately 2.

For model fitness, the R^2 value is used to establish the level of overall fluctuation the study Variables (LOGDTA & LOGDTL) can collectively cause ROA as the dependent variable to change. The R square value of approximately 0.059 shows that LOGDTA and LOGDTL cause ROA to fluctuate at approximately 5.9%; this means that 94.1% fluctuation of the return on assets of listed firms is caused by other factors not considered in this study like actual tax paid. The R^2 adjusted value of approximately 0.006 revealed shows that, there will be a 0.053 (0.059 - 0.006) variation from the sampled result of R square if the other omitted factors are considered. This means that if the amount of tax paid for the firms are considered, there will be either 5.3% increase or decrease in the level of fluctuation deferred tax accounting can cause ROA to change. The Fisher statistic reveals a value of 1.120133 with a probability value of 0.353925 which prove that the overall model is statistically insignificant.

The constant value of 0.003667 revealed shows that, if all the independent variables are held constant; the ROA of the firms will increase by 0.003667 units. Furthermore, a unit change in LOGDTA will cause ROA to increase by 1.09%, also a unit change in LOGDTL will cause ROA to increase by 0.07%.

HO_1: There is no **significant relationship between deferred tax accounting (Deferred tax asset & deferred tax liability) and return on assets of listed consumer goods' manufacturing companies in Nigeria.**

To test the significance of the model, the decision rule stated earlier above is used. Since the Calculated probability value for LOGDTA (0.6521) and LOGDTL (0.9786) against ROA is greater than the accepted probability value of 0.05. The null hypothesis is accepted and the alternative rejected thus; deferred tax asset and liability have no significant effect on return on assets of listed manufacturing firms in Nigeria.

There is no **significant relationship between deferred tax accounting (deferred tax assets & deferred tax liability) and leverage of listed consumer goods' manufacturing companies in Nigeria in table 7.**

Model Summary 2

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects.

Test Summary		**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	
Cross-section random		0.684869	2	0.7100
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.413787	0.250242	1.653551	0.1010
LOGDTA	0.025117	0.042671	0.588631	0.5573
LOGDTL	-0.040804	0.043222	-0.944071	0.3472
squared	0.008283	Mean dependent var		0.130204
Adjusted R-squared	-0.009586	S.D. dependent var		0.190286
S.E. of regression	0.191196	Sum squared resid		4.057698
F-statistic	0.463521	Durbin-Watson stat		1.443139
Prob(F-statistic)				

Source: E-View 9

Table 7, presents the regression result between LOGDTA, LOGDTL and LEV. From the model summary table above, the following information can be distilled.

To enable the study chose between the fixed effect model and the random effect model a Hausman test is conducted with the comparable results placed in the appendix ii at the end of the work. The result of the Hausman correlation test above shows a period random probability value of 0.7100 with a Chi-square statistic of 0.684869 which is not significant and this informs the study decision to choose the random effect model in other to capture firm specific-characteristic that might cause variations in the model specified.

The R^2 which measures the level of variation of the dependent variable caused by the independent variables stood at 0.008283. The R^2 otherwise known as the coefficient of determination shows the percentage of the total variation of the dependent variable (LEV) that can be explained by the independent or explanatory variables (LOGDTA & LOGDTL). Thus t the R^2 value of approximately 0.008 indicates that 0.8% of the variation in the LEV of listed firms can be explained by a variation in deferred tax accounting (LOGDTA & LOGDTL) while the remaining 99.2% (i.e. 100-R^2) could be accounted for by other variables not included in this model

like corporate tax paid by the firms.

The adjusted R^2 of approximately -0.009 indicates that if corporate tax paid is considered in the model, this result will deviate from it by only 0.017 (i.e. 0.008 - -0.009). This result shows that there will be a further deviation of the variation caused by the independent factors to be included by 1.7%.

The regression result as presented in table 4.7 above to determine the relationship between LOGDTA, LOGDTL and LEV shows that when all the independent variables are held stationary; the LEV variable is estimated at 0.413787. This simply implies that when all independent variables are held constant, there will be an increase in the leverage of listed firms up to the tune of 0.413787 units occasioned by factors not incorporated in this study. Thus, a unit increase in LOGDTA will lead to an increase in LEV by 2.5%. Also, a unit increase in LOGDTL will lead to a decrease in LEV by 4%.

Finally, the result shows a Fisher's statistics of 0.463521 at 0.630277 P-value which means the model as a whole is statistically insignificant at an autocorrelation level of 1.44 (Durbin-Watson) indicating the absence of autocorrelation.

H_{02}: There is no significant relationship between deferred tax accounting (Deferred tax asset & deferred tax liability) and leverage of listed consumer goods' manufacturing companies in Nigeria.

To test the significance of the model, the decision rule stated earlier above is used. Since the calculated probability value for LOGDTA (0.5573) and LOGDTL (0.3472) against LEV is greater than the accepted probability value of 0.05. The null hypothesis is accepted and the alternative rejected thus; deferred tax asset and liability have no significant relationship between deferred tax accounting and the leverage of listed manufacturing firms in Nigeria.

The significant relationship between deferred tax accounting (deferred tax assets & deferred tax liability) and earnings per share of listed consumer goods' manufacturing companies in Nigeria

Table 8 Model Summary 3

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.670136	2	**01598**

Variable	Coefficient	Std. Error	t-Statistic	**Prob.**
C	2.5536	2..089937	1.221866 6	**0.2243**
LOGDT	22	0..316789	0.316419	**0.7523**
A	0.10023	0..316661	-0.833617	**0.40653**

R-squared	0.006144	Mean dependent var	
Adjusted R-squared	**0.451793**		
S.E. of regression	-0.011763	S.D. dependent var	**168.5036**
	1.224909		**1.189602**
	1.232092	Sum squared resi	
	0.343120	Durbin-Watson stat	
		0.710303	

Source: E-View 9

Table 8, presents the regression result between LOGDTA, LOGDTL and EPS. From the model summary table above, the following information can be distilled.

To enable the study chose between the fixed effect model and the random effect model, a Hausman test is conducted with the comparable results placed in the appendix ii at the end of the work. The result of the Hausman correlation test above shows a period random probability value of 0.1596 with a Chi-square statistic of 3.670136 which is not significant and informs the study decision to choose the random effect model in other to capture firm specific 'characteristic that might cause variations in the model specified.

The R^2 which measure the level of variation of the dependent variable caused by the Independent variables stood at 0.006. The R^2 otherwise known as the coefficient of • determination shows the percentage of the total variation of the dependent variable (EPS) that can be explained by the independent or explanatory variables (LOGDTA & LOGDTL). Thus the R^2 value of approximately 0.006 indicates that 0.6% of the variation in the EPS of listed (firms can be explained by a variation in deferred tax accounting (LOGDTA & LOGDTL) \while the remaining 99.4% (i.e. 100-R^2) could be accounted for by other variables not included in this model like corporate tax paid by the firms.

The adjusted R^2 of approximately -0.012 indicates that if corporate tax paid is considered in the model, this result will deviate from it by only 0.018 (i.e. 0.006 - -0.012). This result shows that there will be a further deviation of the variation caused by the independent factors to be included by 1.8%.

The regression result as presented in table 4.8 above to determine the relationship between LOGDTA, LOGDTL and EPS shows that when all the independent variables are held Stationary; the EPS variable is estimated at 2.553622. This simply implies that when all independent variables are held constant, there will be an increase in the earnings per share of listed firms up to the tune of 2.553622 units occasioned by factors not incorporated in this study. Thus, a unit increase in LOGDTA will lead to an increase in EPS by 10%. Also, a unit increase in LOGDTL will lead to a decrease in EPS by 26.3%.

Finally, the result shows a Fisher's statistics of 0.343120 at 0.710303 P-value which means the model as a whole is statistically insignificant at an autocorrelation level of 1.19 (Durbin- Watson) indicating the absence of autocorrelation.

H_{03}: There is no significant relationship between deferred tax accounting (Deferred tax asset & deferred tax liability) and earnings per share of listed consumer goods' manufacturing companies in Nigeria.

To test the significance of the model, the division rule stated earlier above is used. Since the calculated probability value for LOGDTA (0.7523) and LOGDTL (0.4063) against EPS is greater than the accepted probability value of 0.05. The null hypothesis is accepted and the alternative rejected thus; deferred tax asset and liability have no significant relationship between earnings per share and listed consumer goods' manufacturing companies in Nigeria.

Discussion of findings, conclusion and Recommendations

There is a positive relationship between deferred tax assets, deferred tax liability and return on assets of the listed consumer goods' manufacturing companies in Nigeria, but the result revealed significant effect of deferred tax assets and deferred tax liability on return on assets of listed manufacturing firms in Nigeria. There is a positive relationship between deferred tax asset and leverage of the listed manufacturing firms in Nigeria while, deferred tax liability has a

negative relationship with leverage of listed manufacturing firms in Nigeria. Also, the result revealed significant effect of both deferred tax asset and liability on leverage of listed manufacturing firms in Nigeria. There is a positive relationship between deferred tax asset and earnings per share of the listed manufacturing firms in Nigeria while, deferred tax liability has a negative relationship with earnings per share of listed manufacturing firms in Nigeria. Also, the result revealed significant effect of both deferred tax asset and liability on earnings per share of listed manufacturing firms in Nigeria.

Conclusion

Based on the test from the three research hypotheses, the study concluded that; deferred tax asset and liability have a positive non-significant relationship with return on assets of listed consumer goods' manufacturing firms in Nigeria. Deferred tax asset has a positive non-significant relationship with leverage of listed consumer goods' manufacturing firms in Nigeria. While deferred tax liability has a negative non-significant relationship with leverage of listed consumer goods' manufacturing firms in Nigeria. Deferred tax asset has a positive non-significant effect on earnings per share of listed manufacturing firms in Nigeria. While, deferred tax liability has a negative non-significant effect on earnings per share of listed manufacturing firm s in Nigeria.

Recommendations

The following recommendations were made: That companies in Nigeria should look into available tax credits available for particular assets and explore the possibility of taking advantage of such tax credits in order to reduce tax burden through tax deferment. This will possibly reduce the firms' tax burden and subsequently increase the firms' return on assets employed. They should choose the right capital combination for all firm managers, thus making it imperative for firm managers in the consumer goods' manufacturing industry to explore tax credits available for means of raising capital. It is imperative that manufacturing firms' managers and tax planners explore tax incentives and investment that are probable to less taxes. If this is done, firms will enjoy tax allowances that leaves a considerable income to be allotted as earnings per each share invested.

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