

DOES COMPANIES' INCOME TAX AND FINANCIAL LEVERAGE AFFECT PROFITABILITY OF QUOTED MANUFACTURING COMPANIES IN NIGERIA?

Afolabi, Adegboyega R. PhD

Department of Accounting, Banking and Finance,
Chrisland University
Abeokuta, Ogun State, Nigeria

Abstract

Researchers have continued to debate on the possibility of companies' income tax affecting the earnings of companies without much concern for its link with financial leverage. This research evaluated the influence of companies' income tax and financial leverage on manufacturing companies listed in Nigeria. Ex-post facto research design and population of 41 Nigerian manufacturing companies quoted on Nigerian Exchange (NGX) (2021) were adopted for the study. The sample size was 20 companies using stratified sampling and secondary data from audited published financial statements for ten years covering 2012 to 2021. Descriptive and inferential (regression) statistics were employed for the analyses of data. The findings revealed that companies' income tax (CIT) had no significant effect on profitability with t -stat $p=0.61$, $p>0.05$ therefore accepting the null hypothesis; but financial leverage had significant effect on profitability with t -stat of 5.217 and $p=0.000$, $p<0.05$, hence null hypothesis is rejected; also both companies' income tax and financial leverage had significant effect on profitability of quoted manufacturing companies in Nigeria with F -stat value of 18.96 and $p=0.000$; $p<0.05$; therefore null hypothesis is rejected. The study concluded that majority of the listed Nigerian manufacturing companies are operating on loan and companies' income tax alone cannot significantly influence their profitability but it was possible with the inclusion of financial leverage. It recommended that government should review the tax policy so that companies' income tax rate can be reduced, and improve infrastructural facilities deficiency.

Key Words: Companies' Income Tax; Financial Leverage; Profitability; Tax Rates; Tax policy and revenue

1.0 Introduction

Taxation has been a catalyst which creates change in human behavior or reaction to government policies. It is an important source of revenue for governments all over the world. Taxation gives government the opportunity to generate the needed funds from the citizens which is expected to be used in meeting its recurrent and capital expenditures. The National Tax Policy (2017) defined tax as any compulsory payment to government imposed by law without direct benefit or return of value or a service whether it is called a tax or not. Afuberoh and Okoye (2014) defined taxation as a burden which every citizen must bear to assist and maintain his or her government in order to perform certain functions for the

benefits of those it governs. Nwosu *et al* (2016) disclosed that taxation is a principal player in every economy and it is not expected to be static. Omokhuale (2016) referred to taxes as the major tools required to solve problems in financing of public goods. Lethbridge (2016) opined that taxation play a significant role in supporting the financing of quality public services. Angahar and Sanni (2012) defined tax as levy imposed by Government that has to be paid to the government by the tax payer according to their profits on goods and services provided. Chris and Elizabeth (2001) defined taxes as a forced proportional contribution from persons and property levied by the State by virtue of its sovereignty for the support of government and for all public needs.

Any government whose tax system is not effective or proactive, funding of the public goods and services which is expected to achieve effectiveness and efficiency will be difficult because it is through an improved tax system that the citizens can assist government to attend to many issues that need government attention. Bassey (2013) emphasized that the reasons for imposition of tax by Government are to generate revenues to finance government spending, reduce or discourage consumption of certain goods, reduce inequality in the distribution of wealth and redistribution of income between high and low income groups, maintain price stability and stimulate economic growth and development. There are many taxes in operation in Nigeria. These are companies' income tax, personal income tax, capital gains tax, petroleum profit tax, tertiary education tax, customs and excise duty, business premises and value added tax. This study is concerned with companies' income tax which is imposed on the profits of companies excluding the companies involved in petroleum upstream activities.

Financial leverage or gearing is the proportion of equity and debt that company has issued. Afolabi (2003) defined financial leverage as the relationship between a company's fixed-return capital in the form of preference shares and debentures and ordinary share capital or equity fund. When the proportion of fixed return capital to risk or equity capital is high the capital is said to be high-g geared, when this proportion is low, the capital is said to be low-g geared.

Profitability is a measure of the performance of an entity. Arab, Masoumi, and Barati (2015) defined profitability as the ability of a firm to sustain growth by earning enough income that will make it to survive in the short and long-run. Profit inability refers to the lack of ability of an enterprise to earn sufficient profit that will sustain its growth and survival in the short term and long-term perspectives. Profits are important and every stakeholder of a firm is interested in the company's financial soundness and profitability. Companies Income Tax and Financial Leverage are used to proxy independent variable while profitability represented with return on capital employed (ROCE) is the dependent variable.

Taxation is a worldwide phenomenon which no government can throw away like bath water. It constitutes an important source of revenue generation for government throughout the world. Many researches have been carried out in the area of companies' income tax but its influence on profitability when combined with financial leverage is lacking in the available studies. Many used profit before tax in calculating effective tax rate without giving chance to profit after tax. Noor *et al* (2010) used current income tax expense divided with pretax income as the effective tax rate to proxy corporate tax planning. Rahman *et al* (2020) assessed the impact of financial leverage on firm's profitability with focus on

empirical evidence from listed textile firms of Bangladesh. Olowolaju *et al* (2014) examined taxation as a tool for national development in Sub-Saharan Africa with evidence from Nigeria. Adegbite and Shittu (2017) analysed the impact of corporate income tax on investment in Nigeria. Akinwunmi *et al* (2017) examined multiplicity of taxes and foreign direct investment with focus on relational analysis of Nigerian tax environment. Lethbridge (2016) worked on tax justice in Nigeria; Madugba *et al* (2015) cover corporate tax and revenue generation with evidence from Nigeria. Afuberoh and Okoye (2014) examined the impact of taxation on revenue generation in Nigeria; and William and Andrew (2014) evaluate the effects of income tax changes on economic growth.

In order to bridge these gaps, this study therefore examined the influence of companies' income tax and financial leverage on profitability of quoted Nigerian manufacturing companies.

1.1 Objectives of the Study

The main objective of this study is to examine the effect of companies' income tax and financial leverage on profitability of quoted manufacturing companies in Nigeria. The specific objectives are to:

- (i) Assess the effect of companies' income tax on profitability of quoted manufacturing companies in Nigeria.
- (ii) Evaluate the effect of financial leverage on profitability of quoted manufacturing companies in Nigeria

2.0 Literature Review

Companies' Income Tax

Section 105(1) of Companies Income Tax Act (CITA) 2004 defined a company as any company or corporation (other than a corporation sole) established under any law in Nigeria or elsewhere. Company and Allied Matters Act (CAMA) 2020 section 18(1) emphasized that any two or more persons may form and incorporate a company and in section 18(2) one person may form and incorporate a private company by complying with the requirements of the Act.

The administration and collection of Companies income tax is vested in Federal Inland Revenue Service (FIRS). Companies Income Tax is payable for each year of assessment on the profits of any company accruing in, derived from, brought into or received in Nigeria in respect of any trade or business for whatever period of time such trade or business may have been carried on; rent or any premium arising from a right granted to any other person for the use or occupation of any property; dividends, interest, royalties, discount, charges or annuities; any source of annual profits or gain not falling within the preceding categories; any amount deemed to be income or profit under the provisions of CITA or, with respect to any benefit arising from a pension or provident fund, of the Personal Income Tax Act (PITA); fees, dues and allowances (wherever paid) for services rendered; any amount of profits or gains arising from acquisition and disposal of short-term money instruments like federal government securities, treasury bills, treasury or savings certificates and treasury bonds.

Pedabo (2021) opined that Section 394(3) of CAMA 2020 classifies a company as small if it satisfies all the following conditions:- must be a private company; maximum turnover of ₦120million; maximum net assets value of ₦60million; has no foreign member; has no government membership; and directors must hold at least 51% of its share capital.: The conflict in this Act in respect of the turnover of small companies was amended by Finance Act 2020 which further classify into small, medium and large companies with the following breakdown for tax purposes: Small Company should have a gross turnover of less than ₦25million with a 0% tax rate, Medium-sized Company should have a gross turnover of more than ₦25million but less than ₦100million and tax rate of 20%; while large company should possess gross turnover of ₦100million and above with a tax rate of 30%

In the area of electronic devices, Udoma and Osagie (2022) emphasized that Finance Act 2020 had granted FIRS the power to ask for access to information stored on taxpayers' electronic devices without the chance for taxpayers to object to such request by FIRS. Finance Act 2021 has now provided for taxpayer the opportunity to request FIRS in writing for the withdrawal of the request for access or ask for an extension of 30-day period for the taxpayer to comply with the FIRS' request. These provisions of the Act empowers the FIRS to administer, assess, collect, account, and enforce taxes and levies stored on electronic devices.

Samuel and Tyokoso (2014), opined that income tax is one of the major sources of revenue to all governments in Nigeria, and it is an important factor to be reckoned with in the Federal Government budget; the taxes collected has over the years affected the private sector depending on the government policy. Rohaya *et al* (2008) disclosed that Malaysia work in line with the global tax reforms and mainly focused on the country's tax reform on corporate tax system because it account for almost seventy percent of the Malaysia's total income tax revenue. This is an evidence that Malaysia largely depends on corporate income tax revenue for public expenditure. Rohaya, *et al* (2008) further reiterated that one of the strategies employed in its tax reform is the continuous reduction in the corporate statutory tax rates, in 1988 it was 40% and by 2006 it has reduced to 28%. In addition, various tax incentives like double deduction of expenses, pioneer status, investment tax allowance, sales tax and exemption of import duties were introduced to assist the economic growth and to allow people to be involved in business activities. Noor *et al* (2010) opined that the Inland Revenue Board of Malaysia (IRBM) assess taxpayer's liability using the official assessment system and the self-assessment system as against only official assessment system in use prior to 2001. According to Anyanwu (1997), tax reform became imperative in Nigeria because of the nature of the country's tax structure which was complex, inelastic, inefficient, inequitable and unfair. The country's dependence on foreign trade activities' related taxes made the revenue base to be very unstable while the tax base was very narrow with a very high tax rate. Based on the argument from various authors, this study hypothesized that:

H₀₁: Companies income tax has no significant effect on profitability of quoted manufacturing companies" in Nigeria.

Financial Leverage

Krishnamoorthi (2012) defined leverage as the ability of an enterprise to meet its long term debt. The long-term obligation of a company focused on debenture holders, financial institutions and individuals that provide loans and other credit. These ratios indicate firm's

ability to meet the fixed interest, its costs and repayment schedule associated with its long term borrowings. Nissim and Penman (2003) emphasized that leverage is traditionally viewed as arising from financing activities with focus on borrowing cash to raise funds for operations and that in valuing firms and analyzing profitability, two types of leverage activities are available, that is financing and operating activities; while evaluation of leverage is based on the proportion of total liabilities to equity. Winn (2014) disclosed that financial leverage is measured by a firm's debt-to-equity ratio and it concerns the proportion of debt to equity or shareholder's funds which is used to finance the company's assets. The optimal debt-to-equity depend on the historical level and the industry in which the company is operating. To measure financial leverage, we can use debt/equity ratio and debt to net worth ratio, however this study used debt/equity to measure financial leverage. Singh (2015) defined debt-equity ratio as a measure of relationship between long-term borrowings and shareholders fund of an enterprise calculated to estimate the long term solvency of a company. Debt-equity ratio show the proportion of funds obtained by comparing the long-term debt to shareholders fund. It is a financial ratio that indicates the relative proportion of shareholders' equity and debt used to finance a company's assets. The two components are often taken from the firm's balance sheet or statement of financial position, but the ratio may also be calculated using market values for both, if the company's debt and equity are publicly traded, or using a combination of book value for debt and market value for equity financially.

Krishnamoorthi (2012) defined debt-equity ratio as the relationship between borrowed funds and owner's capital. It is a popular measure of the long term financial solvency of a company which is used to ascertain soundness of the long term financial policies of a firm. A high debt/equity ratio generally means that a company has been aggressive in financing its growth with debt. This can result in volatile earnings as a result of the additional interest expense. This can result in volatile earnings as a result of the additional interest expense. A low debt/equity ratio usually means that a company has been friendly in financing its growth with debt and more aggressive in financing its growth with equity. Consequently, the study hypothesized that:

H₀₂: Financial leverage has no significant effect on profitability of quoted manufacturing companies' in Nigeria.

Profitability

Gadoiu (2014) defined the profitability ratios as the rates showing the efficiency of a company as a ratio between the resulted effects, benefits and the efforts to achieve them. The study emphasized that corporate finance theory introduced two relative measures of profitability, the return on equity and the return on assets; their actual size and influence are used to analyze the profitability of a company. Tulsian (2014) defined the word profitability as composed of two words, namely, profit and ability, profit being the net income while ability of a concern denotes its earning power or operating performance. Profitability, therefore, is defined as the ability of a given investment to earn a return from its use. Profitability is a relative concept while profit is an absolute connotation. Profitability analysis is used to measure operational efficiency and productivity of capital employed. It can be measured using return on capital employed, return on asset and return

on equity. Kajanathan and Velnampy (2014) emphasized that profitability ratios include return on investment, return on equity, gross profit margin and net profit margin which have been identified as having relationship with liquidity and solvency and have been tested by various studies. Profitability can be analysed using return on capital employed, return on equity, return on total assets, operating efficiency and other profitability related short term solvency parameters. Ratio analysis provides relative measures of the company's performance and can indicate clues to the underlying financial position. This study used return on capital employed to measure profitability.

Shoesmith (2004) defined return on capital employed as a measure of profit earned using the profit before interest and taxation as a percentage of the capital employed in the business without separating equity from borrowing. The study also differentiate between return on capital employed and return on equity; return on equity is the profit before tax and after interest as a percentage on the shareholder's equity; the difference being the fact that return on equity recognize the gearing achieved by borrowing. Enyi (2006) defined the return on capital employed (ROCE) as a measure of efficiency of management in the application and use of the organization's funds or resources in a specific financial period.

Tulsian (2014) emphasized that return on capital employed ascertain the relationship between profit and capital employed and it is calculated as a percentage of net profit on capital employed. It is also measure the earning power of the net assets of the enterprise. Return on capital employed (ROCE) ratio is used by financial analysts to ascertain the best investment plans. It is also an important tool used by investors and shareholders, while making investment decisions. Return on capital employed ratio for a company shows how much profit a company is making against the capital employed which can also be regarded as the equivalent of investment made by the shareholders and the investors. Return on capital employed ratio is also used to compare different investment options by an investment advisor. An investment with a higher ROCE ratio is more lucrative option as compared to an investment with a lower ROCE ratio. An investment with a negative or lower ROCE ratio is most likely to be discontinued by the investors. Conclusively, the study also hypothesized that:

2.1 Theoretical Framework

The study is anchored on Financial Instability Hypothesis and Benefit theory of taxation because of their strong relevance to both the independent and dependent variables of the study.

Financial Instability Hypothesis

The hypothesis of financial instability was developed by Hyman Minsky in 1992. The study discussed that financial crisis are synonymous with capitalism because periods of economic prosperity allow borrowers and lender to be progressively reckless, this make capitalism prone to move from periods of financial stability to instability resulting in market failure which needs government regulation. Minsky (1992) emphasized that the capital development of a capitalist economy is associated with exchanges of present money for future money. The present money are resources that are used for the production of investment output, while the future money is the profits or gain which accrue to the firm that own capital assets that are used in production. As a result of the process of financing the investment, the liabilities assume control over items in the capital stock as a

commitments to pay money at dates specified or as conditions arise. The liabilities of each economic unit in the financial statements determine a time series of prior payment commitments, even as the assets generate a time series of conjectured cash receipts. The main focus of the theory is that the internal dynamics of capitalist economies leads, over a period dominated by the successful operation of a capitalist economy, to the emergence of financial structures which are conducive to debt deflations, the collapse of asset values and deep depressions (Minsky, 1992).

Palley (2009) disclosed that Minsky's financial instability hypothesis maintains that capitalist financial systems have an inbuilt natural tendency to financial instability. That natural tendency can be summarized as "Success breeds success breeds failure" - or can be reframe as, "success breeds excess breeds failure". Minsky's framework is one of evolutionary instability and it is looked at as resting on two different cyclical processes. The first cycle is the "basic Minsky cycle", while the second is the "super-Minsky cycle". Palley (2009) emphasized further that the basic Minsky cycle concerns the evolution of patterns of financing arrangements and it captures the phenomenon of emerging financial sensitivity in business and household financial position. The cycle begins with "hedge finance" when borrowers' expect that revenues are sufficient to repay interest and loan principal after which it move on to "speculative finance" when revenues only cover interest while the cycle ends with "Ponzi finance" when revenues are insufficient to cover interest payments and borrowers are depending on capital gains to meet their obligations. The basic Minsky cycle present a psychologically based theory of the business cycle. The super-Minsky cycle involve allowing more financial risk into the system. The cycle involves two developments which are regulatory relaxation and increased risk taking. These two developments increase both the supply of and demand for risk.

Benefit Theory of Taxation

According to this theory of taxation, citizens should be asked to pay taxes in proportion to the benefits they receive from the services rendered by the Government. This theory is based upon the assumption that there is an exchange relationship or quid pro quo between the tax payer and Government (Andreoni *et al* 2008). Under the benefit theory, tax levels are automatically determined, because taxpayers pay proportionately for the government benefits they receive. In other words, the individuals who benefit the most from public services pay the most taxes. Income tax, property tax and sales tax all reduce how much money consumers have to save or spend. Business taxes place some of the burden on commercial enterprises (Lewis, 1982). According to this theory, the State should levy taxes on individuals according to the benefit conferred on them. The more benefits a person derives from the activities of the state, the more he should pay to the government. This principle has been subjected to severe criticism on the following grounds the world over, taxes is one major source of government revenue, however, not every national government have been able to effectively exploit this great opportunity of revenue generation. This can be attributed to a number of reasons including the system of taxation; tax legislation; tax administration and policy issues; over reliance on other sources of revenue (such as foreign aid and grants); corrupt practices in the system – especially as it relates to the system of tax

collection and behaviour of citizens towards tax payment; and ease of tax payment (Torgler, 2007).

3.0 Methodology

3.1 Research Design

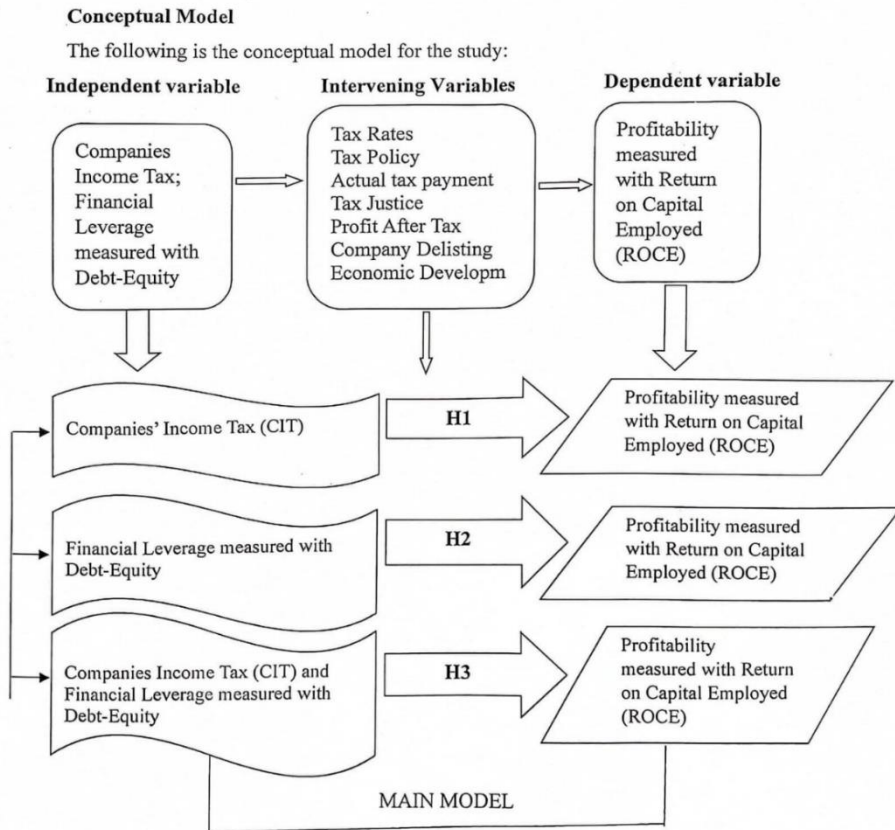


Figure 1: Conceptual Model
Source: Researcher's Study (2022)

This study adopted *ex-post-facto* design because data available for the work were gathered through the secondary data from published financial statements relating to the past years from 2012 to 2021. *Ex-post-facto* is relevant also to this study because it investigates possible cause and effect relationships by observing an existing condition or state of affairs and searching back in time for plausible casual factors.

3.2 Population

The population of this study consists of the forty-one (41) manufacturing companies publicly quoted on the Nigerian Exchange (NGx) daily activity on summary-equities, 2021) which is classified into six (6) industrial sectors.

3.3 Sample size and Sampling Techniques

The study adopted the stratified sampling method to position the companies into their six (6) categories after which a proportional system was applied to determine the number of companies selected in each category of the six industries: food, beverage and agricultural industrial segment; packaging, containers and chemical; pharmaceuticals; printing and publishing; household and diversified products; and building material sector.

The sample size was twenty (20) firms selected from the stratified list using judgmental sampling based on size, characteristics, number of companies in each strata and availability of audited financial statements for the ten (10) year period up to 31 December, 2021. The sample was analyzed over ten (10) year period (2012 to 2021), using balanced panel data for the analysis.

3.4 Method of Data Analysis and Estimation Techniques

Descriptive and inferential statistics were used for data analysis. The inferential statistics include regression analysis used to determine the effect of the independent variables on the dependent variables to test the hypotheses. Since the data derived cuts across companies in several years, the study estimated the models using Unobserved Effects Model (UEM). The UEM can either be fixed effect or random effect depending on the assumptions about the distribution of the unobserved components and the error term, and stochastic process of the time series across company (that is, unit root processes), as well as the asymptotic properties of year (t) and companies (i). Durbin Watson was used to test for autocorrelation. The heteroscedasticity of the error term is tested based on the Breusch-Pagan/Cook Weisberg test at 5% significant level. The results reveal that all the variables of measurement have constant coefficients. The unit root test result assume asymptotic normality. The study used E-View and Stata as the statistical package for data analysis.

3.5 Model Specification

Dependent and independent variables were identified in this study, namely; the dependent, The dependent variable represents the measure of profitability that may be influenced by companies' income tax (CIT) and financial leverage (independent variables). Profitability was measured with Return on Capital Employed (ROCE), while companies' income tax is measured with companies' income tax to profit after tax ratio. Financial leverage was measured using debt-equity ratio (DEB-EQT). Profit after tax was used in calculating the ratio for the representation of companies' income tax. This was preferred to Profit before tax because it is assumed that if interest on loan can be treated as expenses against profit, tax which is a compulsory payment should also assume the same posture. It is also assumed that share of profit is between taxation which is for government and the residual, profit after tax, which is the legitimate claim of the equity owners. The study is aware that some research used profit before tax as in Noor *et al* (2010) where the study used current income tax expense divided with pretax income as the effective tax rate to proxy corporate tax planning.

The functional relationships are as follow:

$$Y = f(X, z)$$

$$X = x_1, x_2$$

Where:

Y= Profitability measured with Return on Capital Employed (ROCE)

X=Companies’ income tax and Financial Leverage

x₁= Companies Income Tax (CIT)

x₂= Financial Leverage measured with Debt-equity (DEB-EQT)

Model 1

$$ROCE = f(CIT) \dots \dots \dots F1$$

$$ROCE_{it} = \alpha_0 + \beta_0 CIT_{it} + \mu_0$$

Model 2

$$ROCE = f(DEB-EQT) \dots \dots \dots F2$$

$$ROCE_{it} = \alpha_1 + \beta_1 DEB-EQT_{it} + \mu_1$$

Model 3

$$ROCE = f(CIT, DEB-EQT) \dots \dots \dots F3$$

$$ROCE_{it} = \alpha_2 + \beta_2 CIT_{it} + \beta_3 DEB-EQT_{it} + \mu_2$$

Where:

β_{0-3} , represent the coefficients of the independent variable respectively.

μ_{0-2} are the error/disturbance terms

it represent firm ‘i’ in time ‘t’.

ROCE = Return on Capital Employed;

CIT = Companies’ Income Tax;

DEB-EQT = Debt-equity Ratio.

Table 1: *A Priori* Expectations

S/N	Models	Expected signs	Coefficient and the Expected Sign
1	$ROCE = \beta_0 + \beta_1 CIT + \mu$	Positive (+)	$\beta_0 < 0; \beta_1 > 0$
2.	$ROCE = \beta_0 + \beta_1 DEB-EQT + \mu$	Positive (+)	$\beta_0 < 0; \beta_1 > 0$
3	$ROCE = \beta_0 + \beta_1 CIT + \beta_2 DEB-EQT + \mu$	Positive (+)	$\beta_0 < 0; \beta_1, \beta_2 > 0$

Source: Researcher’s Study, 2022

4.0 Data analysis, Results and Discussion of findings

Table 2: Descriptive Statistics

	ROCE	CIT-R	DEB-EQT
Mean	0.13	0.61	-2.36
Median	0.12	0.35	0.20
Maximum	0.83	66.76	8.43
Minimum	-0.57	-4.64	-582.28
Std. Dev.	0.16	4.74	41.23
Skewness	-0.13	13.71	-14.01
Kurtosis	6.49	192.08	197.58
Sum	26.74	122.36	-472.25
Sum Sq. Dev.	5.28	4465.09	338359.70
Observations	200.00	200.00	200.00

Source: Researchers’ Study, 2022

Table 2 contains descriptive statistics for return on capital employed (ROCE), companies' income tax to profit after tax ratio (CIT-R), and debt to equity ratio (DEB-EQT).

The result showed the mean value in respect the twenty (20) companies for ten (10) years using a panel data analysis having a total observation of two hundred (200). Return on capital employed (ROCE) showed a mean value of 0.13, which indicate that on average the companies are making 13% per cent return on capital employed; company income tax to profit after tax ratio of 0.61, this showed that an average of 61% of the profit after tax are paid as companies' income tax. Debt-equity with a negative figure of -2.36 indicate that on average majority of the companies are highly geared.

Table 3 Analysis of heteroscedasticity tests using Breusch-pagan/cook-Weisberg test

Objective	Dependent Variables	Independent Variables		Chi-Square	Probability	Heteroscedasticity @ 5% Sig. Level
1	ROCE	CIT	-	0.89	0.3459	NOT SIGNIFICANT
2	ROCE	CIT	DEBT	0.57	0.4577	“

Source: Researchers' Study, 2022

The heteroscedasticity of the error term is tested based on the Breusch-Pagan/Cook Weisberg test at 5% significant level. The results reveal that all the variables of measurement have constant coefficients. Their probabilities are all above 5% level significance.

Unit Root test

At level, return on capital employed have no unit root because the probability is below .0.5. They are tested at 5% level of significance.

Testing of the hypotheses

The test of the hypotheses were carried out in this section with the presentation of the result for each of the test. The model analysis covered pooled regression, fixed effect, random and Hausmann tests. The description and reason for the hypotheses is to know the effect of companies' income tax and financial leverage on profitability of the twenty (20) quoted manufacturing companies being studied for the period of ten (10) years. The main objective of carrying out this test is to know the effect of companies' income tax on the profitability; and that of companies' income tax and financial leverage on profitability of quoted manufacturing companies in Nigeria.

Test of Hypothesis One (H_{01})

H_{01} : Companies' income tax has no significant influence on profitability of quoted manufacturing companies in Nigeria.

Hypothesis 1 Test Results

The result of the Hausman Test indicated $p=0.00$ in Table 4 which is lesser than the 5% level of significance chosen for the study showed that fixed effect estimator is the appropriate estimator for the model. The fixed effect is interpreted with t-stat $p=0.61$, this showed that null hypothesis is accepted hence companies' income tax has no significant

influence on return on capital employed which is used to measure profitability. This is a reflection that companies’ income tax has no significant effect on profitability.

Test of Hypothesis Two (H₀₂)

H₀₂: Financial leverage has no significant effect on profitability of quoted manufacturing companies in Nigeria.

Hypothesis 2 Test Result

The result of the Hausman Test with p=0.387 in Table 4 which is greater than 5% level of significance chosen for the study indicates that random effect estimator is the appropriate estimator for the model which is a reflection that Random test with t-stat of 5.217 and p = 0.000 result should be interpreted. Fixed effect result with t-stat of 5.105 and p-value = 0.000 also supported Random test result. These results showed that we reject null hypothesis therefore financial leverage has significant effect on return on capital employed (ROCE) which is the proxy for profitability. This is an indication that financial leverage has significant influence on profitability.

Test of Hypothesis Three (H₀₃)

H₀₃: Companies’ income tax and financial leverage has no significant influence on profitability of quoted manufacturing companies in Nigeria

Hypothesis 3 Test Result

The result of the Hausman Test with p=0.000 in Table 4 which is lesser than the 5% level of significance for the study showed that random effect estimator is the appropriate estimator for the model. The hypothesis 3 test indicated that Hausmann test p= 0.000; fixed effect with F-statistic value of 18.96 and Prob (F-Statistic) of 0.000 (p-value< 0.05) the null hypothesis is rejected, therefore, we accept that companies income tax (CIT) and debt-equity has significant effect on return on capital employed (ROCE).

Table 4 Summary of Hypotheses Testing Result

Independent Variable	Hausman	Decision	t-stat	p-value	f-stat	p-value	R ²	Adj R ²
CIT	p=0.000	Fixed	0.510	0.61	-	-	0.63	-
DEB-EQT (FIN. LEV)	p=0.387	Random	5.217	0.00	-	-	0.63	-
CIT-DEB/EQT	p=0.000	Fixed	-	-	18.96	0.00	-	0.580

Durbin Watson = 1.72

Source: Researchers’ Study, 2022

4.1 Discussion of findings

The first hypothesis result showed that companies’ income tax has no significant influence on profitability of quoted manufacturing companies in Nigeria with t-stat of 0.51 p-value =0.61 The coefficient of determination of R² which is the explanatory power of the model, is 0.63. This shows that the independent variables in the model (CIT) explained about 63% variation in the dependent variable, profitability (ROCE) while the remaining 37% of variations were explained by other factors that could affect the dependent variable. Hence,

the coefficient of determination suggests that the independent variables in the model have good explanatory power.

Hypothesis 2 showed that financial leverage have significant influence on profitability of quoted manufacturing companies in Nigeria. with $t\text{-stat} = 5.217$ $p = 0.00$. The $R^2 = 0.63$ is the explanatory power of the model, This shows that the independent variables in the model, financial leverage (Debt/Equity) explained about 63% variation in the dependent variable, profitability (ROCE) while the remaining 37% of variations were explained by other factors not covered but affect the dependent variable. Hence, the coefficient of determination indicates that the independent variables in the model have good explanatory power.

Hypothesis 3 indicated that financial leverage has significant effect on profitability of quoted manufacturing companies with $f\text{-stat} = 18.96$ $p = 0.000$. The Adjusted $R^2 = 0.5806$ is the explanatory power of the model, This indicates that the independent variables in the model, companies income tax and financial leverage (Debt/Equity) explained about 58% variation in the dependent variable, profitability (ROCE) while the remaining 42% of variations were explained by other factors not considered but affect the dependent variable. In view of this fact, the coefficient of determination indicates that the independent variables in the model have good explanatory power.

The study indicated that companies income tax has no significant effect on profitability; this is not in line with the *a priori expectation* which predicted a positive effect, also is the work of Chude and Chude (2015) that examined the impact of company income taxation on the profitability of companies in Nigeria with a study of Nigerian Breweries The research concluded that there is positive and significant relationship between the profitability of Nigeria breweries (EPS) and the tax explanatory variables. It indicates that policy measures to expand tax revenue through more effective taxation will impact positively on the profitability of Nigeria breweries. Also, Gatsi *et al* (2013) focused on exploring the relationship between corporate tax and financial performance. The study found that, there is a significant negative relationship exist between corporate income tax and financial performance, on the other hand firms' size, age of the firm, growth of the firm shows a significant positive relationship with financial performance. The results that Financial leverage and both companies income tax and financial leverage had significant effect on profitability of quoted manufacturing companies in Nigeria are in line with a priori expectation.

The relevance of the result of this study to Nigerian situation is that despite the fact that companies income tax alone cannot significantly influence profitability of quoted manufacturing companies in Nigeria, these companies pays a high level of actual taxes into the Nigerian government purse and it is expected that companies income tax revenue can be used to assist them in the area of provision of electricity and other infrastructural facilities on which the companies are spending a lot of money.

5.0 Conclusion

This study examined the influence of companies' income tax and financial leverage on profitability of quoted manufacturing companies in Nigeria with the result that companies' income tax alone cannot significantly influence the profitability of quoted manufacturing

companies in Nigeria but it was possible with the inclusion of other variables like financial leverage, both companies' income tax and financial leverage have significant influence on the companies' profitability. It is necessary for Nigerian Government to reason along with the benefit theory of taxation so that government can provide the manufacturing companies the infrastructural facilities needed and provide tax policy that will be beneficial to tax justice.

5.1 Recommendations

Based on the findings of this study the following are recommended, the Federal Government should review the tax policy so that companies' income tax rate can be reduced to reflect the economic reality, avoid double taxation effect on profit of companies and infrastructural facilities deficiency as these will assist the survival of these companies and prevent them from leaving the country because of tax, infrastructural deficiency and high cost of production call for serious concern. Also since most companies are operating on debt as shown in the result of the study that financial leverage has significant effect on profitability, it is necessary for the Central Bank of Nigeria to reduce interest rates. Tax policy should provide succor for companies that are paying taxes by providing necessary infrastructural facilities in their environment

References

- Adegbite, T.A. & Shittu (2017). The analysis of the impact of corporate income tax on investment in Nigeria, *Worldwide Journal of Multidisciplinary Research and Development*, 3(3), 60-64.
- Afolabi A.R. (2003). *Corporate Finance Simplified Manual*, (1st Ed), Abeokuta, Grafold Consulting.
- Afubero, D., & Okoye, E. (2014). Impact of taxation on revenue generation in Nigeria: A study of federal capital territory and selected States, *International Journal of Public Administration and Management research*, 2(2), 230-239.
- Akinwunmi, A.J, Olotu, A.E & Adegbe, F.F (2017). Multiplicity of taxes and foreign direct investment: A relational analysis of Nigerian tax environment, *Science PG Social Sciences Journal*, 6(4), 91-101.
- Andreoni, J., Erand, B. & Fenistein, J. (2008). Tax compliance, *Journal of Economic Literature*, 36(2), 81-86.
- Angahar, P.A & Sanni. A.I. (2012). Personal income tax administration in Nigeria: challenges and prospects for increased revenue generation from self-employed persons in the society, *Global Business and Economics Research Journal*, 1(1), 1-11.
- Anyanwu, J.C. (1997). *Nigeria Public Finance* (1st Ed), Onitsha, Joanne Educational Publishers.
- Arab, R.O., Masoumi, S.S & Barati. A. (2015). Financial performance of the steel Industry in India: A critical analysis, *Middle-East Journal of Scientific Research* 23(6), 1085-1090
- Bassey, O. U. (2013). *Company income taxation in Nigeria*, (2nd Ed), Lagos, CIBN Press Ltd.

- CAMA (2020). Companies and allied matters Act, 2020 (Act No. 3)
- CITA (2004). Companies Income Tax Act (CITA) 2004
- Chris, W.H & Elizabeth, S.B (2001). *Revenue law, principles and practice*, (8th Ed), London: Butterworths Publishers.
- Chude, D.I. & Chude, N.P. (2015). Impact of companies' income taxation on the profitability of companies in Nigeria: A study of Nigerian Breweries, *European Journal of Accounting, Auditing and Finance Research*, 3(8), 1-18.
- Enyi, P.E. (2006). How useful is the return on capital employed as a performance indicator. Retrieved from <http://www.financialanalyst.org/Enyi%20Research> on 21 June, 2022
- Finance Act (2020); Finance Act 2020, Nigeria.
- Gadoiu, M. (2014). Advantages and limitations of the financial ratios used in the financial diagnosis of the enterprise, *Scientific Bulletin – Economic Sciences*, 13(2) 87-95. Retrieved from <http://economic.upit.ro/repec/pdf/2014.pdf> on 20 May, 2022.
- Gatsi, J.G., Gadzo, S.G. & Kpportorgbi, H.K. (2013). The Effect of corporate income tax on financial performance of listed manufacturing firms in Ghana, *Research Journal of Finance and Accounting*, 4(15), 118-13
- Islahi A.A. (2015). Ibn Khalduns theory of taxation and its relevance today. Retrieved from www.researchgate.net/publication on 22 February, 2022.
- Kajanathan, R & Velnampy, T. (2014). Liquidity, solvency and profitability analysis using cash flow ratios and traditional ratios: The telecommunication sector in Sri Lanka, *Research Journal of Finance and Accounting*, 5(23),163-170.
- Krishnamoorthi. M. (2012). Long term solvency (leverage) analysis of selected steel companies in Indian: An empirical study, *International Journal of Management Research and Review*, 2(7), 525-538. Retrieved from <https://www.researchgate.net/publication> on 25 May, 2022.
- Laffer. A. (2004). The Laffer curve: Past, present and future, Heritage Foundation. Retrieved from <http://www.heritage.org/taxes/report> on 11 August, 2022.
- Lethbridge, J. (2016). Tax justice in Nigeria, public services international research, retrieved from www.world-psi.org, on 21 July, 2022.
- Lewis, J. (1982): A perspective on the experimental analysis of taxpayer reporting, *Accounting review*, 66(3), 77-93.
- Madugba, J.U., Ekwe, M.C. & Kalu, J.M. (2015). Corporate tax and revenue generation: Evidence from Nigeria, *Journal of Emerging Trends in Economics and Management Sciences*, 6(5), 333-339.
- National Tax Policy (2017). Nigeria national tax policy, Federal Ministry of Finance.
- Nissim. D. & Penman, S.H. (2003). Financial Statement analysis of leverage and how it informs about profitability and price-to-book ratios, *Review of Accounting Studies*, 8(1) 531–560, Retrieved from <http://www.columbia.edu> on 9 July, 2022
- Noor R.M., Fadzillah & Mastuki, N.A. (2010). Corporate tax planning: A study on corporate effective tax rates of Malaysian listed companies, *International Journal of Trade, Economics and Finance*, 1(2), 189-193.
- NSE. (2021). Nigerian Stock Exchange (NSE) daily activity summary, The Punch Newspaper,.

- Nwosu, M.E., Iorwuese, T.E. & Abba, W.B. (2016). The challenges and imperative of tax system reform in Nigeria, *International Journal of Economics and Finance*, 8(3), 151-164.
- Olowolaju, P. S., Ajibola, S. O., and Akintoye, I. R. (2014). Taxation as a tool for national development in Sub-Saharan Africa: Evidence from Nigeria. *British Journal of Economics, Management and Trade*. Retrieved from <https://ssm.com/> on 21 September, 2022
- Omokhualé, I. (2016). Evaluation of the contribution of value added tax to the Nigeria economy, *EPRA International Journal of Economic and Business Review*, 4(2), 32-47.
- Pedabo K (2021): Companies and Allied Matters Act 2020: Interactions with Extant Tax Provisions, <https://pedabo.com/companies-and-allied-matters-act-2020-interactions-with-extant-tax-provisions/> Retrieved on 24 April, 2022
- Rahman M.M., Saima F.N, & Jahan K. (2020). The impact of Financial Leverage on Firm's Profitability: An empirical evidence from listed textile firms of Bangladesh, *Journal of Business, Economics and Environmental Studies*, 10(2), 23-31
- Rohaya, M. N., Nor'Azam, M. and Bardai, B. (2008). Corporate effective tax rates: A study on Malaysian public listed companies, *Malaysian Accounting Review*, 7(1), 1-20.
- Samuel, S.E., & Tyokoso. G. (2014). Taxation and revenue generation: An empirical investigation of selected States in Nigeria, *Journal of Poverty, Investment and Development (An open access international Journal)*, 4(1), 102-114.
- Shoemith. J. (2004). Return on capital employed and return on equity, the serious investor No. 16 Autumn. Retrieved from <http://www.signet.org.uk/public> on 21 March, 2022.
- Singh. V. (2015). Long term solvency analysis: A case study of Tata motors and Maruti Suzuki, *International Journal of Management*, 6(9), 44-50.
- Torgler, B. (2007). Tax compliance and tax morale. A theoretical and empirical analysis, Cheltenham. Edward Elgar. Retrieved from www.academicjournal.org on 29 May, 2022.
- Tugas, F.C. (2012). A comparative analysis of the financial ratios of listed firms belonging to the education subsector in the Philippines for the years 2009-2011, *International Journal of Business and Social Science*, 3(21), 173-190.
- Tulsian, M. (2014). Profitability analysis: A comparative study of Sail and Tata steel, *IOSR Journal of Economics and Finance*, 3(2), 19-22. Retrieved from www.iosrjournals.org, on 14 September, 2022.
- Udoma. U & Bassey K (2022): Finance Act 2021-Major Highlights <https://uubo.org/wp-content/uploads/2022/08/finance-act-2021-major-highlights.pdf>
- William, G. G & Andrew, A.S. (2014). Effects of income tax changes on economic Growth, *Economic Studies Brookings Journal*, 3(5)133-155.
- HypothesiWinn C.D. (2014). Optimal debt-to-equity ratios and stock returns, Utah State University Digital Commons, All Graduate Plan B and other reports, 363. Retrieved from: <https://digitalcommons.usu.edu/gradreports> on 24 March, 2022.