# Corporate Taxes and Profitability of Listed Food and Beverages Firms in Nigeria

[1]Ogechi Eberechi ALPHEAUS, [2]Kelechi Callistus NWANKWO & [1]Promise Iheanyichukwu UJAH
[1]Department of Accounting, Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria.
[2]Department of Accounting, Clifford University, Owerrinta, Abia State, Nigeria.
Email: alpheaus.ogechi@mouau.edu.ng, kelechinwankwo@clifford.edu.ng &
ujah.iheanyichuku@mouau.edu.ng

## Abstract

The study examined the effect of corporate taxes on the profitability of some selected listed food and beverage firms in Nigeria from 2013 to 2022 using secondary data which were sourced from the annual report of the selected food and beverages firms listed on the Nigerian Exchange Group. The study employed Generalized Method of Moments (GMM) regression analysis as the estimation technique. Results on the assessment of the effect of independent variables (company income tax (CIT), capital gains tax (CGT) and education tax (ET) on dependent variable (return on equity (ROE) with firm size (FS) as control variables were also reported. The panel data series were first validated using the unit root test and the result showed a mixed order among the variables which resulted in the use of the Panel GMM. The study found that company income tax and capital gains tax have a significant and positive effect on return on equity. However, education tax has a significant but negative effect on ROE. The study concluded that corporate taxes have a significant effect on profitability of listed food and beverages firms in Nigeria. The study recommended that the government should make sure that the money collected from company income tax (CIT) is used to foster economic growth. Also, a decisive mechanism should be adopted in the mode of capital gain tax collection in order to inhibit leakages. Similarly, the study recommended that there should be increased awareness and education of manufacturing enterprises about the need to pay education taxes.

**Keywords**: Corporate Taxes, Company Income Tax, Capital Gains Tax, Tertiary Education Tax, Profitability, Return on equity.

## Introduction

In every economy, corporate taxes are a means of revenue collection, and taxes are one of the weapons used in fiscal policy to control a country's economy. The Nigerian government uses tax policy as a tool to encourage corporate expansion in the private sector (Nwaobia, 2014). Nigerian companies that produce food and beverages are discouraged by corporate taxes. According to Gatsi, Gadzo and Kportorgbi (2013), corporate tax introduction and payment is a major factor in the food and beverage industry's financial difficulties. In addition to providing the government with cash, corporate taxes have other uses. Corporate taxes are designed to sensitize investors to invest in specific sectors of the economy and to safeguard emerging industries. Corporate taxes can be used by the government to create disincentive for other economic activities (Gatsi, Gadzo & Kportorgbi, 2013).

According to Dickson and Nwaobia (2012), unfavorable corporate tax laws could impede the economic development of developing nations, having an adverse impact on both the general public and corporate entities that are already burdened by inefficient and ineffective tax laws. Any country's government is interested in increasing revenue to meet its spending obligations, while investors want a business-friendly atmosphere with lower taxation (Pitulice, 2016). All food and beverage companies, regardless of their economy, were willing to support expansion, which was seen in the creation of jobs and increased tax revenue. Corporate taxes are used to create jobs, lower inflation, limit the consumption of specific items, redistribute income, and promote economic progress (Pitulice, 2016). The principal aims of the tax system in Nigeria

are to encourage fiscal responsibility and accountability, supply steady resources to the government for the provision of public goods to the populace, facilitate economic growth and development, tackle income distribution disparities, stabilize the Nigerian economy, and rectify market imperfections and failures. Corporate taxes are a type of direct tax that are levied on an organization's net profit or company profit. Corporate taxes are an operational expense. Because they lower taxpayers' purchasing power and create a substitution effect between taxed and untaxed items, corporate taxes have an income effect. Food and beverage companies incur high manufacturing costs because corporate taxes are ingrained in their costs. Corporate taxes are a levy on income that, upon correct assessment, constitute tax liabilities (Khan and Safiuddin, 2016). It is important to handle corporate taxes appropriately to minimize their detrimental impact on the revenue of food and beverage companies. Nigerian food and beverage companies' net profit or profit before tax is decreased by corporate taxes. According to Kiabel (2019), there are various corporate taxes in Nigeria, including value added tax, company income tax, petroleum profit tax, withholding tax, tertiary education tax, national information technology development tax, and capital gains tax. However, the corporate taxes that are specifically measured in this study are the tertiary education tax, capital gains tax, and company income tax while profitability is measured using return on equity.

## Conceptual Clarification

## Corporate Taxes

Most nations like United Arab Emirates, Switzerland, and Singapore etc. have a tax system in place to cover government expenses as well as shared, agreed-upon, public requirements. The above nations impose company taxes on personal income at a fixed percentage rate, the majority of scale taxes are progressive and based on annual income levels in brackets. The majority of nations impose taxes on both business and individual income. Corporate taxes are a means of transferring wealth from enterprises to the government. The Federal Inland Revenue Service is responsible for tax collection in Nigeria. Federal Inland Revenue Services (FIRS) is tasked with the assessment, collection, and accounting of taxes that the federal government is authorized to collect, according to Bassey's (2019) report. Corporate taxes are an obligatory tax levied by the government, acting through an agent, on the earnings and income of cooperative businesses. It is also seen as a mandatory contribution paid by people and organizations to help cover government expenses (Dandago & Alabede, 2020). Corporate taxes, according to Ogundele (2018), are the real economic resources that are transferred from the private to the public sectors in order to fund public sector operations. From the foregoing, it can be concluded that corporation taxes represent a transfer of financial resources from private economic actors, such as corporate bodies, to the public sector in order to fund societal advancement. Corporations pay corporate tax according to the amount of profit they make (Aransiola, 2013). Tax is levied on entire earnings in accordance with audited accounting that may require revisions.

## Dimensions of Corporate Taxes

## Company Income Tax

According to Okeke, Mbonu, and Ndubuisi (2018), a company is any corporation or firm (apart from a corporation sole) that is formed in accordance with a law that is in effect in Nigeria or another country. The Corporate Affairs Commission is the organization in charge of company registration in Nigeria. Company income tax, according to Ogbonna and Appah (2016), is a tax imposed on a company's profit (apart from profit from companies involved in upstream operations) that is accrued, derived from, brought into, or received in Nigeria in relation to any trade or business, rent, premiums, dividends, interest, loyalties, and any other annual profit

source. Okoye and Gbegi (2013) stated that all Nigerian incorporated firms are required to pay company income tax on any profits that are made, derived from, brought into, or received within the country. The Federal Republic of Nigeria, 1990's Company Income Tax Act (CITA) CAP.60 established and governed company income tax in Nigeria. All businesses operating in the country are subject to this tax, with the exception of those that are expressly exempted by the Act, and it is levied at a rate of 30% of total profit (Adegbite, 2015). The enabling Act (CITA) serves as a guide for the Federal Inland Revenue Service (FIRS) in the administration of company income tax. Any profit that all incorporated entities in Nigeria accrue, derive from, bring into, or receive in Nigeria is subject to company income tax. (Appah, 2013).

## Capital Gains Tax

The government's revenue stream from the sale of capital assets by individuals and corporate entities is known as capital gain taxation, or CGT. According to Obi-Chukwu (2013), it is a tax levied on the gain realized from the sale or exchange of specific types of assets. In the similar vein, Thomas (2010) stated that capital gains are taxed as they are realized (that is, when the capital asset is sold or exchanges). Capital assets are property, but there are exceptions such as business inventory, account receivable acquired in the ordinary course of business, copyrights and literary compositions. The Federal Inland Revenue Service (FIRS) Board oversees the administration of the Capital Gains Tax Act, which it applies to corporations and persons residing in the Federal Capital Territory, including foreign serving officers, law enforcement personnel, and members of the armed services. The State Internal Revenue Service is responsible for administering the tax to persons according to their residency regulations. Capital gains from the sale of capital assets are subject to a 10% CGT penalty.

## Tertiary Education Tax

A two (2) percent education tax is levied on the assessable income of companies registered in Nigeria by the Education Tax Act of 1993, currently known as the Education Tax Act, Cap. E4, LFN 2004. According to the 2020 Tertiary Education Trust Fund Act (TETFA), a part of the Current Finance Act: The decline in all areas of the education sector led to the creation of the education tax. Brain drains became the norm as a result of inadequate infrastructure, understaffing, low worker morale, and extremely unpleasant and dehumanizing working conditions (Desai & Hines, 2002). The purpose of the Tertiary Education Tax, formerly known as the Education Tax, is to support higher education in Nigeria by taxing the assessable earnings of all companies registered in the country, including those that are subject to the Petroleum earnings Tax Act. The Tertiary Education Trust Fund (Establishment, Etc.) Act No. 16 of 2011 created it.

## Return on Equity

Return on equity, as defined by Epps and Cereola (2008), is the profit generated for each naira of shareholders' equity. It is a straightforward metric for assessing investment returns, and comparing a company's return on equity to the industry average return on equity can reveal information about how the management of the company is using equity financing to expand the business. Horngren, Bhimani, Datar, and Foster (1994) contended that a sustainable and rising return on equity over time can indicate that a company is adept at generating shareholder revenue because it understands how to reinvest its earnings profits profitably. Return on equity, as described by Chagbadari (2011), is a measure of a corporation's profitability in relation to stockholders' equity. It is computed by dividing net income by shareholders equity, which is equal to a firm asset less debt.

**Theoretical Framework**

This study is anchored on economic deterrence theory otherwise known as A-S model of tax compliance which was propounded by Allingam and Sandmo 1972. This theory is based on tax evasion compliance behaviour by taxpayers. The theory is of the assumption that taxpayer's behaviour towards taxation is determine or influenced by tax audit, detection of evasion and the extent of the severity of penalties that is melted on tax evaders. In other words when severe penalties are melted on tax evaded there is the tendency that few people will evade tax. On the other hand, more people will evade tax if the penalties are relaxed thereby giving room to non-compliance. Andreoni, Erard and Feinstein (1998) posited that the model relies upon a wide range of major assumptions that are generally unrealistic for determining taxpayer's behaviour. Focusing on the use of coercion on compliance rather than the use of consensual method led to more criticism of the model. However, despite the criticism of the model, it is widely used in tax administration especially when enforcement strategies involving the use of penalties and tax audit is to be adopted as people become indifferent when it comes to taxation. There is some evidence to support the relevance of deterrence theory in addressing taxpayer's noncompliance (Mckerchar & Evans 2009). Due to the fear of tax audit, the detection of evasion and the penalties that follows, it is seen as an effective strategy to induce taxpayer's behaviour towards compliance. It can be therefore said that when situation demands that coercive measure be adopted for tax compliance and penalties on defaulters these will make people to comply with the resultant effect of increase in tax revenue generation.

**Empirical Review**

In the literature of Ojelabi (2023) investigated the Effect of Company Income Tax on Corporate Performance of Listed Manufacturing Firms in Nigeria. Ex-post facto research design was adopted for this study. The purposive sampling technique was adopted to select only five out of forty-four listed manufacturing firms. The study found that CIT has a positive and significant effect on profit after tax in Nigeria listed manufacturing firms. The study also found that, CIT has a positive and significant effect on Returns on Equity (ROE).

The work of Lasisi and Fijabi (2023) examined the effect of corporate taxes and profitability of listed information and communication technology companies (ICT) in Nigeria. Content analyses of the annual report of sampled companies were carried out using descriptive and inferential statistics for a period of five years (2018-2022). The findings also showed that company income tax was positively and significantly related to profitability in quoted information and communication technology companies in Nigeria. However, education tax has significant negative effect on profitability of information and technology companies in Nigeria.

Equally, Erasmus, Obara and Uwikor (2023) empirically ascertained the effect of company's income tax on profitability of quoted manufacturing companies in Nigeria. The study adopts purposive sampling techniques to select thirty quoted manufacturing companies as a sample size from 2006-2020and analysed using panel least squares regression. Findings showed that while company income tax and tertiary education tax had a negative and insignificant effect on net profit margin, capital gains tax had positive and significant effect on net profit margin of quoted manufacturing companies in Nigeria.

The study of Abiola, Yekini, Raheed and Olushola (2022) analyzed the influence of Company Income Tax on Firms' Profitability in the consumer goods sector of the Nigerian economy. The study employed secondary data obtained from the published financial statements of the fifteen (15) selected consumer goods company quoted on the Nigerian Stock Exchange (NSE) for the period of 2012 to 2018. A Panel Fully Modified Ordinary Least Square was adopted in analyzing the collected data and the result from the analysis indicated that company income

tax has a positive and significant influence on profit after tax in consumer goods sector of the economy.

The impact of company income tax on corporate performance by Adefunke and Usiomon (2022) used data from twelve (12) listed firms on the Nigerian Stock Exchange across ten (10) years from the period of 2011-2020 and analysed using regression analysis. Findings from the study revealed that Company income tax (CIT) has a positive and significant effect on profit after tax (PAT) and returns on equity (ROE).

A study by Vincent and Patience (2021) assessed the effect of taxation on the profitability of businesses in Nigeria for the period from 1994 to 2020 and analyzed using the Co-integration, Granger causality tests, Augmented Dickey Fuller, Johansen Co-integration test and Parsimonious Error Correction Model. The result indicates that the Value Added Tax (VAT), Petroleum Profit Tax (PPT) and Company Income Tax (CIT) have positive and significant effect on business profitability.

The literature of Andrew (2020) examined the impact of corporate tax and firm characteristics on the performance of quoted manufacturing firms in Nigeria for a period of 10 years using 4 manufacturing firms in the Nigeria Stock Exchange Market. Regression analysis was used to run the secondary data. Corporate Tax, Firm Size and Firm Age were used as independent variables while Return on Assets was employed to proxy the concept of performance. The findings revealed that Corporate Tax is positively impacting on profitability of quoted manufacturing firms.

In 2020, Nnamdi and Ike investigated the effect of taxation on the profitability of selected food and Beverage Company in Nigeria. The study, therefore, evaluated the effect of Company Income Tax (CIT) and Education Tax on the profitability of food and beverage firms in Nigeria for the period spanning from 2009-2018. Panel data analysis revealed a positive and significant effect of CIT on Asset Turnover of beverage firms in Nigeria while Education Tax had negative but insignificant effect of on Asset Turnover of food and beverage firms in Nigeria.

The study of the effect of corporate taxation on the profitability of some selected firms in Nigeria from 2007 to 2016 by Olaoye and Alade (2019). The study employed pooled ordinary least square as the estimation technique. The analytical results revealed that corporate tax and education tax have positive and significant effects to influence profit after tax.

The study of Olatunji and Oluwatoyin (2019) examined the effect of corporate taxation on the profitability of some selected firms in Nigeria from 2007 to 2016 using secondary data which was sourced from various publications of the firms' financial report. The study employed pooled ordinary least square as the estimation technique. The analytical results revealed that company income tax and education tax as the major taxes paid by company have positive and significant effects to influence profit after tax.

In 2018, Omodero and Ogbonnaya examined the impact of corporate tax on profitability of Deposit Money Banks in Nigeria. The specific objective of this study is to investigate the extent to which company income tax (CIT) affects the profit after tax (PAT) of 12 Deposit Money Banks in Nigeria from 2006 to 2016. Multiple regression analysis and t-test were used to analyze the data and the result of the study revealed that there is a positive significant impact of company income tax (CIT) on profit after tax.

Finally, Amaniampong, Kumi and Kumi (2018) examined effects of corporate income tax on the profitability of mining company: evidence from Ghana stock exchange from the year 2005 to 2014 with a sample of the only two listed mining firms on the Stock Exchange as at the time of the study. Return on assets was used as proxy for profitability as against corporate income tax which is the independent variable whereas company size, liquidity, leverage and growth

were considered as control variables. The regression results showed that corporate income tax negatively influences profitability; whereas company size positively associates with profitability and liquidity, leverage and growth negatively impacted profitability.

**Methodology**

This study adopted expost facto research design using panel data for 10years (2013 - 2022). Ex post facto design is a quasi-experimental study that examines the relationship of an independent variable with a dependent variable within an experiment. The population of the study consisted of twenty-five (25) food and beverage firms listed on the floor of the Nigerian Exchange Group as at December 31$^{st}$, 2023. Purposive Sampling technique was used to select twenty (20) companies as they had complete data on the variables of the study for the period under investigation. Secondary source of this data was extracted from audited annual financial reports of Quoted Food and Beverage Firms in Nigeria with a focus on company income tax, capital gain tax and tertiary education tax, and return on equity. The study made use of descriptive and Generalized Method of Moments (GMM) regression analysis in analyzing the data collected. To achieve the purpose of the study, an econometrics model was developed to capture the influence of corporate taxes on profitability of quoted food and beverages firms in Nigeria.

**Econometric form**

$$FP = \alpha_0 - \alpha_1 CT + FS + \varepsilon_{it}$$

$$ROE_{it} = \beta_0 + \beta_1 CIT_{it} + \beta_2 CGT_{it} + \beta_3 EDT_{it} + FS + \varepsilon_{it}$$

The Panel Generalized Method of Moments Models for the variables are stated below;

@DYN (ROE,-2) = LOG_CIT (-1) + LOG_CGT (-1) + LOG_EDT (-1) + FS (-1)

Where

| | | | | | |
|---|---|---|---|---|---|
| CT | = | Corporate Taxes | FP | = | Profitability |
| CIT | = | Company Income Tax | CGT | = | Capital Gain Tax |
| EDT | = | Education Tax | FS | = | Firm Size |
| ROE | = | Return on Equity | $it_1 - it_4$ = | | Slope |
| $\beta_1 - \beta_4$ = | | Regression Coefficient | $\alpha$ | = | Regression Constant |
| $\varepsilon_{it}$ | = | Error Term | | | |

**Result of the Findings**

**Descriptive Statistics**

In order to achieve the specific objectives earlier stated, descriptive statistics of the data collected was given. The result of the descriptive statistics is shown in Table 1.

**Table 1: Descriptive analysis of ROE, LOG_CIT, LOG_CGT, LOG_EDT and FS**

| | ROE | LOG_CIT | LOG_CGT | LOG_EDT | FS |
|---|---|---|---|---|---|
| Mean | 0.246896 | 5.882887 | 0.216705 | 5.435772 | 8.727571 |
| Median | 0.166525 | 6.449865 | 0.000000 | 5.574965 | 8.408988 |
| Maximum | 4.845713 | 9.482498 | 8.191118 | 9.135746 | 11.88440 |
| Minimum | -0.883717 | 0.000000 | 0.000000 | 0.000000 | 6.832458 |

| | | | | | |
|---|---|---|---|---|---|
| Std. Dev. | 0.470632 | 2.695248 | 1.123438 | 2.087472 | 1.145036 |
| Skewness | 5.956002 | -1.231473 | 5.426373 | -1.205554 | 0.648823 |
| Kurtosis | 52.99542 | 3.639358 | 32.34384 | 4.748399 | 2.550315 |
| Jarque-Bera | 22011.98 | 53.95730 | 8157.025 | 73.91948 | 15.71751 |
| Probability | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000386 |
| Sum | 49.37920 | 1176.577 | 43.34098 | 1087.154 | 1745.514 |
| Sum Sq. Dev. | 44.07745 | 1445.608 | 251.1605 | 867.1502 | 260.9103 |
| Observations | 200 | 200 | 200 | 200 | 200 |

*Source: Author's Computation 2024*

From Table 1, Capital gains tax (CGT) and return on equity (ROE) has the least mean values of 0.216705 and 0.246896 respectively. However, Firm size (FS), Company income tax (CIT), and Education tax (EDT), respectively has 8.727571, 5.882887 and 5.435772 to top the reported mean value for the variable. On the other hand, the standard deviation of ROE, CIT, CGT, EDT and FS stood at 0.470632, 2.695248, 1.123438, 2.087472 and 1.14536 respectively signify that the data deviates from the mean values with CIT being the highest and ROE being the least. All the variables were not normally distributed since the Jacque-Bera statistics have probabilities values that are less than 0.05. To resolve the normality problem, the variables were transformed by lagging before running the regression.

**Cross-Section Dependence Test**

The need for right technique for unit root test demands for cross-section dependence test so as to make the right choice based on the significance of the cross-section dependence test (Yameogo, Omojolaibi & Dauda, 2020).

**Table 2: Cross-Section Dependence Results of Variables**

| Variables | Breusch-Pagan LM | Pesaran scaled LM | Bias-corrected scaled LM | Pesaran CD |
|---|---|---|---|---|
| ROE | 0.0000 | 0.0000 | 0.0000 | 0.0658 |
| LOG_CIT | NA | NA | NA | NA |
| LOG_CGT | NA | NA | NA | NA |
| LOG_EDT | 0.0000 | 0.0000 | 0.0000 | 0.6995 |
| FS | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

*Source: Author's Computation 2024*

The results obtained show that all the variables, with exception of firm size have one of the test criteria yielding a probability value of higher than 5% which validates the acceptance of null hypothesis proposing the absence of cross-section dependence. Thus, the study rejects the proposition of cross-section dependencies for return on equity, company income tax, capital gains tax and education tax based on the Pesaran CD criterion. However, for firm size, the null hypotheses were accepted and it was concluded that there is cross-section dependence for the variable. The implication of the results is that the unit root test which is essential for the analyses for return on equity, company income tax, capital gains tax and education tax will be performed using first generation unit root techniques whereas, that of firm size which possess cross-section dependence will be performed using the second-generation unit root methods.

## Unit Root Analyses of Variables

The unit root analyses for return on equity, company income tax, capital gains tax and education tax were conducted with Levin, Lin & Chu method as a first-generation unit root method where as that of firm size were performed with Im, Pesaran and Shin W statistics. The results obtained for each variable are summarised on Table 3.

**Table 3: Unit root test on Corporate taxes, Profitability and Moderating Variables**

| Series | Order | Unit root type | Statistics. | p-value |
|---|---|---|---|---|
| ROE | Level | Levin, Lin & Chu | -4.54140 | 0.0000 |
| CIT | Level | Levin, Lin & Chu | -8.92213 | 0.0000 |
| CGT | Level | Levin, Lin & Chu | -2.00496 | 0.0225 |
| EDT | Level | Levin, Lin & Chu | -12.9632 | 0.0000 |
| FS | 1st differencing | Im, Pesaran and Shin W | 0.73231 | 0.7680 |

*Source: Author's Computation 2024*

Table 3 provides results for testing the unit root null hypothesis that the series are not stationary. The result show that the null hypothesis of the Unit root is rejected for the ROE, CIT, CGT, and EDT based on the Levin, Lin & Chu test statistics at level. However, firm size is stationary based on Im, Pesaran and Shin W at 1st differencing. Since all the series are integrated (either at level or first differencing), it is concluded that the series are stationary.

## Hypothesis Testing

**Analysis of the Relationship between Corporate taxes on the Return on equity of listed food and beverages firms in Nigeria.**

The first, second and third hypothesis formulated is hereby tested for acceptance or rejection decisions.

**Table 4: Test result of the effect of CIT, CGT, and EDT on the Return on equity (ROE) of listed food and beverage food and beverages firms in Nigeria.**

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| ROE(-1) | -0.028918 | 0.141320 | -0.204630 | 0.8381 |
| LOG_CIT | 0.068719 | 0.030050 | 2.286841 | 0.0236 |
| LOG_CGT | 0.048927 | 0.018706 | 2.615526 | 0.0098 |
| LOG_EDT | -0.059592 | 0.052222 | -1.141136 | 0.2556 |
| FS | 0.261416 | 0.294403 | 0.887953 | 0.3759 |

| | | | |
|---|---|---|---|
| Mean dependent var | 0.000359 | S.D. dependent var | 0.560085 |
| S.E. of regression | 0.541976 | Sum squared resid | 45.52946 |
| J-statistic | 11.68591 | Instrument rank | 20 |

Prob(J-statistic)        0.702631

*Source: Author's Computation 2024*

**Test of Hypothesis on the effect of company income tax on the Return on equity of listed food and beverages firms in Nigeria.**

$H_{01}$:        *Company income tax has no significant effect on return on equity of quoted food and beverages manufacturing firms in Nigeria.*

From the table above, the positive beta coefficient of company income tax (LOG_CIT) of 0.068719 indicates a direct linear relationship between return on equity (ROE) and company income tax (CIT). The result obtained also implies that a naira change in company income tax generates 6.8% increase in returns on equity where all other factors are held constant. Also, the J-statistics of 11.68591 signifies a valid model since the probability 0.702631 > 0.05Accordingly

The associated t-statistics of 2.286841 is significant at 5% (that is, 0.0236 <0.05). The study therefore rejects the null hypothesis ($H_{01}$) and conclude that that Company Income Tax has significant positive effect on the Return on equity of listed food and beverages firms in Nigeria.

**Test of Hypothesis on the effect of capital gains tax on the Return on equity of listed food and beverages firms in Nigeria.**

$H_{02}$:        *Capital gains tax does not have any significant effect on return on equity of quoted food and beverages manufacturing firms in Nigeria.*

The beta coefficient of 0.048927 with t-statistics of 2.615526 being significant (0.0098<0.05). The positive signs of both the coefficient and t-statistics evidence the existence of direct relationship between company income tax and return on capital employed. The implication of this result is that a naira change in capital gains tax generates 4.8% increase in returns on equity where all other factors are held constant. The Null hypothesis is rejected; hence the study concludes that capital gains tax has significant positive effect on the return on capital employed of listed food and beverages firms in Nigeria.

**Test of Hypothesis on the effect of education tax on the Return on equity of listed food and beverages firms in Nigeria.**

$H_{03}$:        *The effect of Education tax on return on equity of quoted food and beverages manufacturing firms in Nigeria is not significant.*

The beta coefficient and t-statistics values stood at -0.059592 and -1.141136 respectively being insignificant at 5% (0.2556>0.05). The negative signs of both the coefficient and t-statistics evidence the existence of inverse relationship between education tax and return on equity. Accordingly, the Null hypothesis is accepted, hereafter the study concludes that education tax has significant negative effect on the return on equity of listed food and beverages firms in Nigeria.

**Post Estimation Analyses**

The Arellano-Bond serial correlation test was conducted as a post estimation analysis for each of the GMM model and the results obtained are shown on Table 5.

**Table 5:  Summary of Serial Correlation Results of the GMM estimation Models**

| Details | AR(1) Probability | AR(2) Probability |
|---|---|---|
| ROE Model | 0.1646 | 0.7208 |
| ROCE Model | 0.2514 | 0.6531 |
| NPM Model | NA | NA |

*Source: Author's Computation 2024*

Results obtained have shown that there is no serial correlation in the models estimated as the probability values of the tests are greater than 5% meaning that the null hypotheses in each of the cases proposing the absence of serial correlation in the models should be accepted. Thus, the GMM models and inferences made from them are not forestalled by the presence of serial correlation.

**Discussion of Results**

The analyses of data collected in this study comprises of preliminary tests conducted to determine the right estimation method for testing the hypotheses formulated in the introductory part of this study. The preliminary tests include descriptive, cross-section dependence and unit root analyses. The descriptive statistics showed that the series were not normally distributed as the Jarque-Bera statistics of all the variables have probability outcomes of less than 5% against the decision rule which implies accepting the null hypotheses of normality of the distribution when the p-value > 0.05. The cross-section dependence test informed the use of Levin, Lin and Chu t method for unit root analyses except for net profit margin and firm-size which was analyzed with Im, Pesaran and Shin W statistics. The unit root analyses further informed the need for Generalized Method of Moments (GMM) analysis having ascertained that the data are integrated of mixed order, the panel cross-section $i$ is greater than the number of years $t$ thus the need to use GMM to estimate the influence of the corporate taxes on the profitability proxy. The study finds that company income tax and capital gains tax have a significant positive effect on return on equity. However, education tax has a significant but negative effect on ROE.

**Conclusion**

This study has examined corporate taxes and profitability of listed food and beverage firms in Nigeria using secondary data which were sourced from the annual report of the selected food and beverage firms listed on the Nigerian Exchange Group. The study employed Generalized Method of Moments (GMM) regression analysis as the estimation technique. The findings of the study reveal the effect of independent variables (company income tax (CIT), capital gains tax (CGT) and education tax (ET) on dependent variable (return on equity (ROE) with firm size (FS) as control variables. On the strength of the findings, the study concluded that corporate taxes have a significant effect on profitability of listed food and beverage firms in Nigeria.

**Recommendations**

Based on the findings of the study, the following recommendations are made;

i.    To raise the standard of living for its citizens, boost the profitability of these manufacturing companies, and boost the GDP, the government should make sure that the money collected from company income tax (CIT) is used to foster economic growth.

ii.    Also, a decisive mechanism should be adopted in the mode of capital gain tax collection in order to inhibit leakages, and the administration and collection mechanisms of capital gains tax should be strengthened to ensure the tracking and prompt collection of this form of tax from companies in any part of the country where capital assets are disposed of.

iii.    Equally, increased awareness and/or education of manufacturing enterprises about the need to pay education taxes is necessary since these taxes fund research on business difficulties in an effort to find solutions, as well as supply them with the skilled labour they require.

## References

Abiola, J.O., Yekini, L.S., Raheed, L. & Olushola, T. (2022). Nexus between Company Income Tax on firm's profitability - evidence from the consumer goods company in Nigeria. *International Journal of Management, Social Sciences, Peace and Conflict Studies, 5*(1), 283- 294.

Adefunke, A.B., & Usiomon, A.O. (2022). Impact of company income tax on corporate performance. *Indian Journal of Finance and Banking, 9*(1), 104-114

Adegbite, A.T. (2015). The analysis of the effect of corporate income tax (CIT) on revenue profile in Nigeria. *American Journal of Economics, Finance and Management, 1*(4), 312-319.

Allingham, M.G. & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics, 1*(6), 323-338.

Amaniampong, M., Kumi, J.A. & Kumi, M.A. (2018). Effects of corporate income tax on the profitability of mining company: Evidence from Ghana stock exchange. *Journal of Business Management, 4*(2), 55-66.

Andrew, C. (2020). Impact of corporate tax and firm attributes on the performance of manufacturing firms in Nigeria. *Global Journal of Applied, Management and Social Sciences, 1*(8), 20 – 30.

Andreoni, J., Erard, B. & Feinstein, J. (1998). Tax Compliance. *Journal of Economic Literature 36*(2), 818-860

Appah, E. (2013). *Principles and practice of Nigerian taxation.* Ezevin Mint Printers: Port Harcourt.

Aransiola, S.Y. (2013). Corporate tax and investment decision in quoted manufacturing industries in Nigeria. *Open Journal of Industrial and Business Management*, *1*(2), 33-55.

Bassey, O.U. (2019). *Company taxation in Nigeria.* The CIBN Press Ltd, Lagos, Nigeria.

Capital Gains Tax Act Cap C1 Volume 2 LFN 2004 (as amended)

Chagbadari, M.F. (2011). Corporate and firm performance, *International Conference on Sociality and Economic Development, 10*(1), 484-489.

Dandago, K.I. & Alabede, J.O. (2020). *Taxation and Tax Administration in Nigeria.* Lagos: Triumph Publishing Coy Limited

Dickson, C.L. & Nwaobia, O. (2012). Corporate tax-mix and firm performance. a comprehensive assessment for Romanian listed company. *Economic Research Ekonomska Istraživanja, 31*(1), 1258-1272.

Education Tax Act, Cap. E4, LFN 2004

Epps, R.W. & Cereola, S.J. (2008). Do institutional shareholder service (ISS) corporate governance rating reflect a company's operating performance? *Critical Perspective on Accounting.* 19(8), 1135-1148.

Erasmus, E.G., Obara, L.C. & Uwikor, M.K. (2023). Effect of Companies Income Tax on Financial Performance of Listed Manufacturing Companies in Nigeria. *International Journal of Economics and Financial Management.* 8(2), 25-49.

Gatsi, J.G., Gadzo, S.G. & Kportorgbi, 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), 16-25.

Horngren, C.T., Bhimani, A., Datar, S.M. & Foster G. (1994). *Management and cost accounting.* Pearson Education, England.

Khan, J.R. & Safiuddin, A.M. (2016). A review of taxes and corporate finance. *International Journal of Taxation, 1*(7), 573-691.

Kiabel, B.D. (2019). *Personal income tax in Nigeria.* Springfield Publishers Ltd, Nigeria.

Lasisi, O.R., Fijabi, K.L. (2023). Corporate Taxes and Financial Performance of Listed Information and Communication Technology Companies in Nigeria. African *Journal of Accounting and Financial Research.* 6(4), 160- 176.

Mckerchar, B. & Evans, M. (2009). *Tax policy reforms in Nigeria.* United Nations University, UNU-WIDER World Institute for Development Economics Research Paper No. 2006/03.

Nnamdi, O.E., & Ike U.J. (2020). Effect of taxation on the profitability of selected Food and Beverage Company in Nigeria. *European Journal of Accounting, Finance and Investment, 6*(8), 42-56.

Nwaobia, A.N. (2014). Tax planning and firm value: Empirical evidence from Nigerian consumer goods industrial sector. *Research Journal of Finance and Accounting, 7*(12), 172-183.

Obi-Chukwu, H. (2013). Revenue generation as a major source of income for the state government: An empirical analysis of two parastatals. *International Journal of Economics, Commerce and Management, 2*(7), 4-30.

Ogbonna, G.N. & Appah, E. (2016). Effect of tax administration and revenue on economic growth in Nigeria. *Research Journal of Finance and Accounting, 7*(13), 49 - 58.

Ogundele, E.A. (2018). *Elements of taxation,* Libriservice Nig. Ltd, Lagos

Ojelabi, S.A. (2023). Effect of Company Income Tax on Corporate Performance of Listed Manufacturing Firms in Nigeria. *Advances in Social Sciences Research Journal.* 10(1). 48-59.

Okeke, M.N., Mbonu, C.M. & Ndubuisi, A.N. (2018). Tax revenue and economic development in Nigeria: A disaggregated analysis. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 8*(2), 178 – 199.

Okoye, E.I. & Gbegi, D.O. (2013). Effective value added tax: An imperative for wealth creation in Nigeria. *Global Journal of Management and Business Research, 13*(1), 231- 143.

Olaoye, C.O. & Alade, E.O. (2019). Effect of Corporate Taxation on the Profitability of Firms in Nigeria. *Journal of Economics and Behavioral Studies*. 11(1), 191-201.

Olatunji, O.C. & Oluwatoyin, A.E. (2019). Effect of corporate taxation on the profitability of firms in Nigeria. *Journal of Economics and Behavioral Studies, 11*(1), 191-201.

Omodero, C.O. & Ogbonnaya, K.A. (2018). Corporate tax and profitability of deposit money banks in Nigeria. *Journal of Accounting, Business and Finance Research, 3*(2), 47-55.

Pitulice, I.C. (2016). Research of corporate tax impact on financial performance: Case of company listed on Bucharest stock exchange. *The Bucharest University of Economic Studies, Romania and Valahia University of Targoviste*, Romania.

Tertiary Education Trust Fund (Establishment) Act no 16 of 2011

Thomas, L.H. (2010). *The economic effects of capital gains taxation*. CRS report for congress prepared for members and committees of congress congressional research service 7-5700. Available at www.crs.gov

Vincent, A.E. & Patience, J.I. (2021). Effect of taxation on the profitability of businesses in Nigeria. *African Scholar Journal of Management Science and Entrepreneurship, 23*(7), 295-308

Yameogo, C.E.W. & Dauda, R.O.S. (2020). The effect of income inequality and economic growth on environmental quality: A comparative analysis between Burkina Faso and Nigeria. *Journal of Public Affairs*. 22(2), 1-15