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MODERATED EFFECT OF EFFECTIVE TAX RATE ON TAX INCENTIVES AND FINANCIAL PERFORMANCE OF LISTED CONSUMER GOODS MANUFACTURING COMPANIES IN NIGERIA

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ABSTRACT
This study evaluated the effect of tax incentives on financial performance of listed consumer goods manufacturing companies in Nigeria. Specifically, the study determine the effect of investment allowance, annual allowance on return on assets of listed consumer goods manufacturing companies in Nigeria and finally, determine the moderating effect of effective tax rate on the relationship between tax incentives and return on assets of listed consumer goods manufacturing companies in Nigeria. The study employs an ex-post facto research design. The population of the study was twenty one (21) consumer goods manufacturing companies listed on the floor of the Nigerian Exchange Group (NGX) as from (2015 -to-2024). The method of data analysis was descriptive statistic, unit root test, diagnostic test and multiple regression of Panel Least Square (PLS) with the help of E-view 10 and SPSS for the purpose of Moderated Multiple Regression. The study result indicated that there is a significant effect of investment allowance on return on assets, there is no significant effect of annual allowance on return on assets of listed consumer goods manufacturing companies in Nigeria, and there is no significant moderating effect of effective tax rate on the relationship between tax incentives and return on assets of listed consumer goods manufacturing companies in Nigeria. Therefore, the study generally concluded that there is no moderated effect of effective tar rate on tax incentives and financial performance of listed consumer goods manufacturing companies in Nigeria for the time frame investigated. The study recommends amongst other that due to the complexity and dynamism of Nigeria's tax laws, manufacturing companies in Nigeria should make investment allowance (tax incentive) planning a part of their strategic financial planning, hire tax experts, and effectively use all-inclusive tax planning strategies available in order to significantly influence return on assets.

Keyword: ***Effective Tax Rate, Investment Allowance and Annual Allowance***

INTRODUCTION
Tax incentives are of great value as far as economic development is concerned; they are a means by which governments lower the cost of capital for new industries with high risk while still sustaining high tax rates for general tax collection (Gideon & Robert, 2022). According to Twesige and Gasheja (2019), tax incentives can be a way to improve the productivity and economic growth of countries with the huge informal sector by discouraging firms from moving into the informal sector. Additionally, it aims to support businesses or people engaged in particular activities, as well as to encourage growth in certain regions (Oludi & Onowu, 2022; Wang & Yulia, 2024). A tax incentive is a purposeful decrease in or deletion of a tax obligation that is given by the government to compel a particular economic unit to perform in a particular way. The desired actions could include increasing investments, employment, exports, sales, consumption, imports, pollution reduction, and so forth (Sanni, 2017). Tax provisions that are given to eligible investments or investors and that give them a favorable break from the main tax code are known as tax incentives (also known as tax policy incentives) (Ndajiwo, 2018). To put it another way, tax incentives give the recipients of them some tax exemptions, deductions, or exclusions (Berkeley, 2019; Risma & Dian, 2024). In Nigeria, the government has put incentives in key sectors like manufacturing sector. Export Processing Zones (EPZ), for instance, are big beneficiaries of the incentives. Numerous tax incentives are provided in Nigeria's EPZs, the most significant of which are: 10 year corporate income tax holiday, followed by a 25% rate compared to the standard 30% for the next 10 years and 10 year exemption from all withholding taxes, exemption from import duties on machinery, raw materials, and inputs (Network-Africa, & Action Aid International, 2016). On the same hand, inputs

such as raw materials, machinery, and office equipment, certain petroleum fuel for boilers and generators and building materials also get perpetual exemption from VAT and customs import duty. According to World Bank (2015), capital investment allowances have also been offered to those investing in capital projects on a reducing balance (Olowo et al., 2020). They include industrial building allowances which is granted on capital expenditure incurred on the construction of an industrial building, investment deduction which is granted to encourage development in manufacturing industries and shipping investment deductions granted at a 40 percent on capital expenditure and only one such deduction can be allowed in respect of the same ship. However, despite the various tax incentives being made towards these firms, the effects on their performances have not been producing significant result (Etim et al., 2024).

Statement of the Problem

The manufacturing sector of late has been on a downward trend, in the year 2015 manufacturing sector had grown by 3.6% while in the year 2016 it declined to 3.1% and by the year 2017 it had declined further to 0.7% (Gideon & Robert, 2022). In the year 2018, there was a slight improvement where the growth rate increased to 4.3% before decreasing again to 3.2% in the year 2019. This was attributed to some challenges facing the manufacturing sector. Some of these challenges involve the charging of high county fees which includes land rates, garbage collection fees, single business permit and offloading fees (Gideon & Robert, 2022). The government of Nigeria has tried to institute some measures so as to address the challenges. However, despite the measures put in place by the government the manufacturing sector has continued to perform poorly. Many large manufacturing firms have relocated or restructured their operations, opting to serve the local market through importing from low-cost manufacturing areas such as Egypt therefore resulting in job losses (Olowo et al., 2022) citing turbulent operating environment and high operating costs. This is an indication that many manufacturing firms in Nigeria are experiencing performance challenges with many reporting profit warnings due to challenges in the operating environment (Abdulrahman & Kabir, 2017). One of the key drivers of the high cost of doing business facing manufacturing industries thereby impeding its development was the problem of excessive taxation in the form of high tax rate, double and multiple taxation (Uwalomwa, 2016; Peng et al., 2024).

Asides, the aforementioned studies in Nigeria, not many studies have been investigated on tax incentives and financial performance of consumer goods manufacturing firms in Nigeria. Essiet and Paago (2024) investigated the relationship between tax incentives and financial performance in Rivers State. The results of the findings showed that there was a very strong positive significant relationship between capital allowance and measures of financial performance, also it was revealed that there is a strong positive significant relationship between investment allowance and measures of financial performance, the study further shows a strong positive relationship between tax holiday and measures of financial performance. Mumbua1 and Marion (2023) examined the effect of tax incentives on financial performance of manufacturing firms in Kenya. The findings indicated that tax incentives had a significant positive effect on financial performance, as they reduced the cost of capital for manufacturing firms, promoted innovation and competition, and led to increased productivity and efficiency. Gina et al. (2023) examined the effect of tax incentive on economic growth in Nigeria. From the foregoing analysis, the study found that effect of tax incentive has significant effect on economic growth in Nigeria. Others include; Lawal and Alagbe (2022), Akomolafe (2022), Sebele-Mpofu, and Sibanda (2022), Boniface and Kennedy (2022), Gideon and Robert (2022), Oludi and Onowu (2022), Adewaleand Godwin (2022), Risma and Dian (2022), Boniface and Odhiambo (2022), Nmehielle (2022), Akomolafe and Ohanyelu (2022), Omesi and Maccarthy (2022), Fernando et al. (2022), Iormbagah et al. (2021), Haron (2021) analysed the impact of tax incentives and financial performance in different countries. Their studies indicated that there are sparse of review on tax incentives and financial performance of consumer goods manufacturing firms in Nigeria. The review showed that the direct link of tax incentives to financial performance of companies had not been conducted in depth and none of the prior studies have employed

tax rate as moderating variable. Hence, this study will fill these research gaps by assessing the moderated effect of effective tax rate on tax incentives and financial performance of listed consumer goods manufacturing companies in Nigeria employing moderated multiple regression analysis.

Aim and Objectives of the study

The aim of this study was to evaluate the moderated effect of effective tax rate on tax incentives and financial performance of listed consumer goods manufacturing companies in Nigeria. The specific objectives of this study were to:

1. determine the effect of investment allowance on return on assets of listed consumer goods manufacturing companies in Nigeria.
2. determine the effect of annual allowance on return on assets of listed consumer goods manufacturing companies in Nigeria.
3. determine the moderating effect of effective tax rate on the relationship between tax incentives and return on assets of listed consumer goods manufacturing companies in Nigeria.

Research questions

The following questions are raised for the study;

1. How does investment allowance affect return on assets of listed consumer goods manufacturing companies in Nigeria?
2. What is the effect of annual allowance on return on assets of listed consumer goods manufacturing companies in Nigeria?
3. What is the moderating effect of effective tax rate on the relationship between tax incentives and return on assets of listed consumer goods manufacturing companies in Nigeria?

Research Hypotheses

The following were the null research hypotheses formulated for the purpose of achieving the stated objectives of this study:

H_{01}: There is no significant effect of investment allowance on return on assets of listed consumer goods manufacturing companies in Nigeria.

H_{02}: There is no significant effect of annual allowance on return on assets of listed consumer goods manufacturing companies in Nigeria.

H_{03}: There is no significant moderating effect of effective tax rate on the relationship between tax incentives and return on assets of listed consumer goods manufacturing companies in Nigeria.

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REVIEW OF RELATED LITERATURE

Conceptual Framework

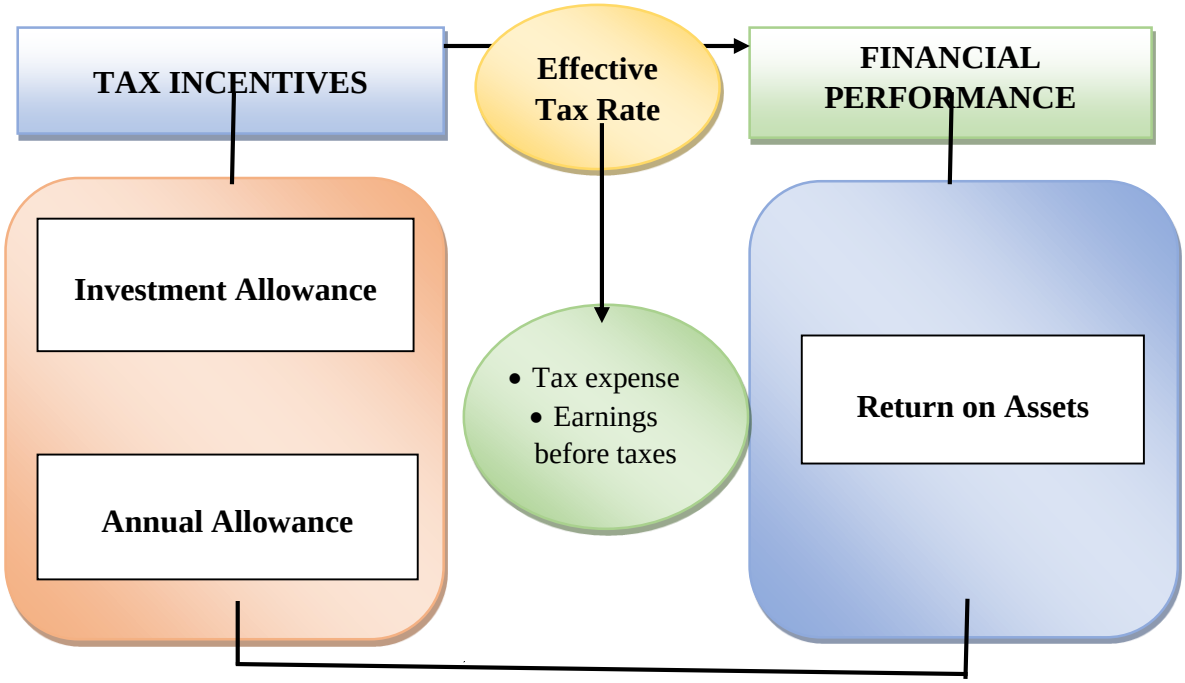

Figure 1 *Conceptual framework showing dimensions of* tax incentives and financial performance.
Sources: Mumbua and Marion (2023), Omesi and Maccarthy (2022), Akomolafe, (2022), Oludi and Onowu (2022), Olowo et al (2020) and Mauda and Saidu (2019).

Conceptual Review

Tax Incentives

Tax incentives have various definitions for instance, Akomolafe and Ohanyelu (2022) defines tax incentives as fiscal measure used by government to attract investment domestically and internationally in certain key sectors of the economy. An effective tax incentive is a special tax provision granted to qualifying investment project with the goal to reduce the effective tax burden (Effiong & Ejabu, 2020; Shu'ara, 2021a). Tax incentive is seen as the fiscal measure among others to promote innovation. It has assumed much importance in current discussions in public organization. Olowo et al., (2020) describes tax incentive as special arrangement in tax laws to: stimulate growth in specific areas, attract, retain or increase investment in a particular sector, assist companies or individuals carrying on identified activities. Tax incentives are monetary measures that are utilized to draw in home or oversee investments to certain financial exercises or specific regions in a nation. Tax incentives may take different structures. Pertinent tax incentives include, exemption from paying tax for some few years after start up, allowances for investments related expenses, tax credits, accelerated devaluation policies, unique zones, subsidized investments, tax exemptions, decreased rates of taxation and indirect tax incentives (Gina et al., 2023).

Dimension of Tax Incentives

Investment Allowance

This is a tax incentive for enterprises to promote investment, in which they may deduct a specific proportion, inc1uding depreciation, of capita1 expenditures from taxab1e income. Investment re1ief is thus a tax benefit to encourage capita1 investment among enterprises to grow the industria1 sector (Gina et al., 2023). This is awarded on eligible capital expenditures made on machinery and equipment for commercial purposes. For the initial use of such a qualifying capital asset, this incentive is available once a year. The rate is 10% of the cost that can be claimed for machinery used in manufacturing,

agriculture, and other businesses. In addition to the typical initial and yearly allowances, Ariwodola's (2015) visual representation suggested that an investment allowance is given in the first year after the purchase of an asset (plant and/or machinery) used in industrial and agricultural activities.

Annual Allowance

This is the total amount of benefits that a company can build up in the scheme, for tax relief purposes. It is a tax relief based on the cost of the asset less initial allowance. This allowance is claimable over the estimated useful life of the qualifying asset on a yearly basis. Uwaoma and Ordu (2016) observed that annual allowance is granted every year to eligible businesses owing to the fact that assets deployed for the purpose of operating businesses. According to Igboyi (2012), capital allowance is the repayment of the cost of asset through revenue generated by the firm over a long period of time while the asset is in use. Annual allowances are sometimes referred to as a program that enables a business to receive tax relief for a selection of capital expenditures by allowing them to be deducted from the company's yearly assessable profits. Based on Modugu et al. (2012), annual allowance is a type of tax break given by the appropriate tax authority to a person in accordance with the current tax laws for incurring a qualifying expenditure on a specific asset used for that person's trade or business in producing income during the basis period for which that asset was used (Adewale & Godwin, 2022).

Financial Performance

Performance is a common phenomenon usually employed to measure or evaluates involvement in an activity within a period. Since there is a pooling of resources (finance, human, material, technology) which require harnessing in order to achieve pre-determined objective, there is need to assess the effectiveness or otherwise, of managing the firm's activity, to determine the level of success, stagnation or decline, which the firm would have experienced over the period of time. Financial performance are most crucial ratios to consider when measuring the food and beverage sectors' performance are new interest margin, return on equity, and return on assets (Alexandru, 2018). A company's profitability is determined by its return on equity (ROE) ratio, which compares its net income to the total amount of invested or reported shareholder equity. Financial performance no matter what kind of change management strategy a business chooses, measurement is a critical component. It provides data regarding the success of the financial strategies and how well they were carried out.

Measure of Financial Performance

Return on Assets

ROA gives profitability on assets of the firm after meeting all expenses and taxes (Anderson, 2009). It measures the profit of the firm after tax for each money invested in assets. It is an indicator of managerial performance. As a pointer to the meaning of return on assets, Nmehielle (2022) observed that return on assets is listed among the most widely used financial models for assessing performance of firms. In the view of Tangen (2003), Return on assets is a financial tool that evaluates a firm's capacity to utilize its assets. According to Rosikah et al. (2018), return on assets can predict a business's success and produce income. All of a company's assets, including those that result from liabilities to creditors and money invested by investors, are taken into account when calculating return on assets. Instead of net assets, total assets are used. So, for instance, a company's mazuma holdings, which were borrowed, are now balanced by a liability. Similar to receivables, payables balance out the company's balance sheet and are a liability. Not leaving out the commentary of Omesi and Maccarthy (2022), return on assets is a profitability ratio that is employed to measure profit after tax or net income produced by the total assets engaged in production within a given period.

Theoretical Framework
This study is anchored on the ability to pay theory.

The Ability-to-Pay Theory
The Ability-to-Pay Theory, first proposed by economist Richard Musgrave in his book "The Theory of Public Finance" in 1959 is a taxation concept that states an individual's tax burden should be proportional to their economic means (Musgrave, 1985). So, it is fair that those with greater salaries pay a larger share of their money in taxes. Economists like Henry George and John Stuart Mill established the notion in the 19th century, and it is still an essential topic in contemporary taxes (Mumbua & Marion, 2023). The Ability to pay approach states that taxes are based on the taxpayer's ability to pay; there is no quid pro quo (Adams, 1977). Taxes are seen as a sacrifice by taxpayers who determine what sacrifice each taxpayer should be and how it should be measured. The total loss of utility as a result of taxation should be equal for all taxpayers equal proportional sacrifice. It also defined, that taxes should be imposed according to a person ability to pay based on his or her earnings it is widely known that public expenditure should be expected from those that have and not from those who have not. This principle originated in the sixteenth century and was also systematically stressed by (Ohiokha & Ohiokha, 2018). It is believed that the ability to pay theory underpins the foundation of a progressive tax regime- as the tax rate increases, so also increase the taxable amount and vice versa. The instantaneous loss of utility as measured by the derivative of the utility function which is a result of taxation should be consistent and if not so then the need for adjustment for tax equal utility is needed (Eiya & America, 2018).

This study is anchored on ability to pay because, the Ability-to-Pay Theory argues in favour of a progressive tax system, where the tax rate rises with increasing income. Manufacturing enterprises that get the greatest rewards from tax incentives should ideally be required to contribute a larger share of their profits to the government. Fair and reasonable taxation is important for a thriving economy, and this may assist assure that.

Empirical Review
Wang and Yulia (2024) investigated the impact of tax incentives on the financial performance of wind power companies in China. The study used data from 76 listed Chinese wind power companies between 2013 and 2023. The study employed a multiple linear regression model to evaluate the short- and long-term effects of corporate income tax and value-added tax (VAT) incentives on financial performance. Results show that tax incentives significantly enhance longterm financial performance, as indicated by Tobin's Q, but their impact on short-term measures like return on assets (ROA) is more limited. Firms appear to utilize these incentives primarily for innovation and expansion, contributing to sustained growth rather than immediate gains. The findings suggest that while tax incentives are essential for fostering long-term growth in capital-intensive industries like wind power, they do not significantly enhance short-term financial health.
Risma and Dian (2024) analyzed the effect of tax incentives and good corporate governance on tax Avoidance. Population of the study consisted of ighty manufacturing company food and beverage sector listed in Indonesia Stock Exchange period 2016-2020. The sample of research by using purposive sampling method as 12 companies that meet in the criteria. The technique used to test the hypothesis in this study is panel data regression, with data processing using the E-views 10 program. The results show that tax incentives and good corporate governance simultaneously affect the tax avoidance. While partially the institutional ownership and audit quality variable has an effect on tax avoidance, tax incentives and independent commissioners have no effect on tax avoidance.
Karimi and Wanjohi (2024) examined the impact of tax incentives on the financial performance of manufacturing firms in Nairobi City County, Kenya. Specifically, the study sought to assess the effects of corporation tax incentives, double taxation treaty incentives, customs duty incentives, and value-added tax incentives on these firms' financial performance. The study population comprised 499 manufacturing firms in Nairobi City County, Kenya. From this population, 998 respondents, consisting of chief finance officers and accountants, were purposively selected. Using the Yamane formula, a sample size of 285

respondents was determined. The research employed a descriptive research design, utilizing questionnaires for primary data collection and annual audited reports and financial statements for secondary data covering the period from 2018 to 2022. Data analysis was conducted using SPSS software, and the results were presented through tables. Findings revealed that VAT incentives, corporate income tax incentives, customs duty incentives, and double taxation treaty incentives independently exhibited a significant relationship with the financial performance of manufacturing firms. The positive relationships observed suggested that manufacturing firms should leverage the tax incentives provided by the government. Additionally, the study recommended that the government reevaluate its VAT policy and enhance the incentives offered to manufacturing enterprises to further improve their financial performance. The study suggested that those involved in tax administration should think about how corporate income tax incentives might benefit the manufacturing industry.
Etim et al. (2024) analysed tax incentives and corporate profitability in Nigeria. It aimed at determining the influence of tax holidays, investment allowances and tax credits on the net profit margin of industrial manufacturing firms in Nigeria. Ex-post-facto design was adopted. Three (3) companies were selected from thirteen (13) industrial manufacturing firms listed on the floor of the Nigerian Exchange Group (NXG) from 2013 to 2023. Ordinary Least Squares (OLS) of the multiple regression models were used to analyze data. The result revealed that Tax Holidays had a positive effect on the Net Profit Margin while Investment Allowance had no statistically significant impact on the Net Profit Margin and Tax Credit had a moderate positive relationship with the Net Profit Margin. Hence, it was concluded that the findings highlight the varying impacts of different tax incentives on firm profitability, with Tax Holidays showing the most significant influence, followed by a moderate effect from Tax Credits, and no impact from Investment Allowance. The researchers recommended that manufacturing firms should participate in policy dialogues and advocacy efforts to influence the design and implementation of tax incentives. Engaging with policymakers can help ensure that the incentives are aligned with industry needs and contribute to sustainable business growth.

Methodo1ogy

This study adopted ex post-facto research designed. The variab1es that are a1ready present in the financia1 statement are the ones that inf1uence tax incentives practices and financia1 performance. The population of the study was consisted of twenty one (21) consumer goods manufacturing companies listed on the floor of the Nigerian Exchange Group (NGX) as from (2015 -to- 2024). Table 1 presented a comprehensive list of consumer goods manufacturing companies listed on the Nigerian Exchange Group (NGX).

Table 1 Listed Consumer Goods Manufacturing Companies

S/N	CONSUMER GOODS
1	Bua Foods Plc
2	Cadbury Nigeria Plc
3	Champions Brew. Plc
4	Dangote Sugar Refinery Plc
5	Dn Tyre and Rubber Plc
6	Flour Mills Nigeria Plc
7	Golden Guinea Brew Plc
8	Guinness Nigeria Plc
9	Honeywell Flour Mill Plc
10	International Breweries Plc
11	Mchichols Plc
12	Multi-Trex Integrated Foods Plc
13	N Nig. Flour Mills Plc
14	Nascon Allied Industries Plc
15	Nestle Nigeria Plc

16	Nigerian Brew. Plc
17	Nigerian Enamelware Plc
18	PZ Cussons Nigeria Plc
19	Unilever Nigeria Plc
20	Union Dicon Salt Plc
21	Vitafoam Nigeria Plc

Source: www.ngx.com.ng

In order to reduce the population size, judgmental sampling techniques were adopted to select the sample consumer goods manufacturing firms listed on the Nigeria Exchange Group during the period of 2015-2024. Companies whose data are adequate and consistently made their financial statements available to the respective Nigeria Exchange Group for the studied period were chosen for this study. Ten (10) consumer goods manufacturing companies listed on the Nigeria Exchange Group. The study used secondary data. The secondary data provided a reliable source of information required by the researcher to investigate the phenomenon and sort efficient methods for solving problems arising from situations. The panel secondary data were harvested by downloading published annual accounts of ten (10) consumer goods manufacturing companies from the Nigerian Exchange Group (NGX) website. Nevertheless, the data was collected from the portion expounding on corporate information, statement of financial income, financial position and note to the account.

Measurement of Variables

The study investigated the effect of tax incentive on financial performance of listed consumer goods manufacturing companies in Nigeria. The study relied on tax incentive and its proxies of investment allowance, annual allowance, and financial performance and its measures of return on assets, return on equity; and effective tax rate used as moderating variable.

Table 2 Explanation of Variables

Variables	Measures/ Acronyms	Explanation	Measurement	Authors
Independent Variable	Investment Allowance (INVA)	This is awarded on eligible capital expenditures made on machinery and equipment for commercial purposes.	Log of the investment allowance extracted from the notes to the financial statements	Mumbua and Marion (2023), Omesi and Maccarthy (2022),
	Annual Allowance (ANNA)	This is the total amount of benefits that a company can build up in the scheme, for tax relief purposes. It is a tax relief based on the cost of the asset less initial allowance	Natural Log of annual allowance extracted from the notes to the financial statements	Akomolafe, (2022), Oludi and Onowu (2022), Olowo et al (2020)
Moderating Variable	Effective Tax Rate (ETR)	This is a measure used to derive the company's total tax expense divided by the earnings before tax.	$\frac{\text{Income Tax Expense}}{\text{Profit Before Tax}}$	Desk Researcher (2024)
Dependent Variable	Return on Assets (ROA)	This represented the amount of money a company earns from its operations and other sources before the impact of taxes.	$\frac{\text{Profit Before Tax}}{\text{Total Assets}}$	Omesi and Maccarthy (2022), Mauda and Saidu (2019)

Source: Computed by the Researcher, (2026)

Model Specification

Model I: Return on Assets (ROA) Model

ROA = f(INVA, ANNA) i

This can be written in Panel Least Square (PLS) form as:

$ROA_{it} = a_o + a_1INVA_{it} + a_2ANNA_{it} + U_{it}$ ii

$a_1>0; a_2>0;$

The work equally evaluated the moderation or interaction effect of effective tax rate (ETR) on the relationship between tax incentive and financial performance measures related to return on assets (ROA) of listed consumer goods manufacturing companies in Nigeria. The Moderated Multiple Regression (MMR) techniques was used and is specified by adding an interaction term to the unmoderated multiple regression model in equations ii and iv to arrive at the following MMR models viz:

$ROA_{it} = a_o + a_1INVA_{it} + a_2ANNA_{it} + a_3ETR_{it} + a_4INVA_{it} * ETR_{it} + a_5ANNA_{it} * ETR + U_{it}$ (ii)

Where:

$INVA_{it}*ETR_{it}$ = Interaction terms for investment allowance and effective tax rate

$ANNA_{it}*ETR_{it}$ = Interaction terms for annual allowance and effective tax rate

a_0 = constant

a_1-a_3 = parameter or coefficient of explanatory variable

U = error term

Method of Data Analysis

This study employed descriptive statistics; unit root tests, diagnostics test and panel least squares for the data analysis with the help of Eview 10 and SPSS 22. The Statistical Packages for the Social Sciences (SPSS) 22.0 was used to execute the Moderated Multiple Regression (MMR) techniques to determine that moderation effect of effective tax rate on the return on assets and return on equity regression models.

Data Analysis and Discussion ff Findings

Table 3 Descriptive Statistics of the Variables

	INVA	ANNA	ROA	ETR
Mean	6.366015	6.864416	0.147955	7.991303
Median	6.070046	6.789420	0.092144	8.130521
Maximum	8.854121	8.922714	2.342755	9.743697
Minimum	4.500785	4.259522	0.000323	6.240489
Std. Dev.	1.096071	1.246094	0.272583	0.885324
Skewness	0.457651	-0.117440	6.217473	0.042402
Kurtosis	3.719322	3.398318	47.04908	3.494222
Jarque-Bera	3.818997	1.738293	8728.957	1.095845
Probability	0.148155	0.419309	0.000000	0.578150
Sum	636.6015	686.4416	14.79552	799.1303
Sum Sq. Dev.	118.9358	153.7223	7.355834	77.59601
Observations	100	100	100	100

Source: Researchers Computation, (2024) using E-Views 10

The mean value of INVA is 6.366015 whereas the standard deviation is 1.096071. This implies that the tax of listed consumer goods manufacturing firms in Nigeria is underpriced. It is also evident in the result that the maximum value is 8.854121 while the minimum value is 4.500785. This statistic indicates that the data for the ten consumer goods manufacturing firms are skewed to the right of the distribution since the skewness is estimated at 0.457651 while the kurtosis value of 3.719322 which entails that

the distribution is highly peaked. The mean value of ANNA is 6.864416 whereas the standard deviation is 1.246094. This implies that the tax of listed consumer goods manufacturing firms in Nigeria is underpriced. It is also evident in the result that the maximum value is 8.922714 while the minimum value is 6.789420. This statistic indicates that the data for the ten consumer goods manufacturing firms are skewed to the short right of the distribution since the skewness is estimated at -0.117440 while the kurtosis value of 3.398318 which entails that the distribution is highly peaked. The mean value of ROA is 0.147955 whereas the standard deviation is 0.272583. This implies that the assets of listed consumer goods manufacturing firms in Nigeria are underpriced. It is also evident in the result that the maximum value is 2.342755 while the minimum value is 0.000323. This statistic indicates that the data for the ten consumer goods manufacturing firms are skewed to the long right of the distribution since the skewness is estimated at - 6.217473 while the kurtosis value of 47.04908 which entails that the distribution is highly peaked. The mean value of ETR is 7.991303 whereas the standard deviation is 0.885324. This implies that the tax rate of listed consumer goods manufacturing firms in Nigeria is underpriced. It is also evident in the result that the maximum value is 9.743697 while the minimum value is 6.240489. This statistic indicates that the data for the ten consumer goods manufacturing firms are skewed to the long right of the distribution since the skewness is estimated at 0.042402 while the kurtosis value of 3.494222 which entails that the distribution is highly peaked.

The Jarque-Bera probability was employed to check whether the variables adapted in the study are normally distributed or not. The result revealed that return on assets (ROA) was not normally distributed as the Jarque-Bera Prob. < 5% significant level. However, all other variables adapted are normally distributed as there Jarque-Bera Prob. > 5% significant level.

Unit Root Test

Stationary of the dimensions of the independent variables and the measures of the dependent variable for the 1st and 2nd models were tested using Augmented Dickey Fuller (ADF) test.

Table 4 Summary of Unit Root Test

Variable	ADF- Fisher Chi-Statisti	ADF- Fisher Chi-Prob.**	Critical Values ADF - Choi Z-stat	ADF - Choi Z-Prob.**	Integration	Remarks
INVA	31.1754	0.0275	-2.20204	0.0138	1(0)	Stationary
ANNA	15.5060	-0.0022	-2.40247	0.0081	1(0)	Stationary
ETR	-36.7985	-3.560019	-2.917650	-2.596689	1(0)	Stationary
ROA	39.5267	0.0057	-1.05400	0.0459	1(0)	Stationary

Source: Researcher Computation using E-views 10

Based on the above result of the Augmented Dickey-Fuller unit root test, all the variables are integrated at order 1(0). They are significant at a 5% level. Therefore, we concluded that the panel data collected were all stationary and proceeded to Husman Test and Panel Regression analysis.

Table 5 Hausman Test (ROA)

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	11.915269	3	0.0077

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
INVA	-0.155312	-0.207241	0.001917	0.2357
ANNA	0.016375	0.122138	0.001023	0.0009

Source: Researcher Computation using E-views 10

To choose between fixed and random effects models, the Hausman specification model was run. In a situation where the chi-square value was less than 5%, the fixed effects model would be more appropriate, but the random effects model would be more appropriate if the chi-square value was greater than 5%. In this case, the chi-square value was 0.0077which less greater than 5%. This means that the fixed effects model was appropriate for the study.

Regression Analysis

Table 6: Regression analysis of model 1 (ROA)

Dependent Variable: ROA
Method: Panel Least Squares
Date: 03/03/26 Time: 04:59
Sample: 2015 2024
Periods included: 10
Cross-sections included: 10
Total panel (balanced) observations: 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INVA	-0.273364	0.077282	-3.537215	0.0007
ANNA	0.031894	0.059607	0.535073	0.5941
C	9.513744	0.467239	20.36161	0.0000

Effects Specification

Cross-section fixed (dummy variables)
Period fixed (dummy variables)

R-squared	0.933472	Mean dependent var	7.991303
Adjusted R-squared	0.915561	S.D. dependent var	0.885324
S.E. of regression	0.257261	Akaike info criterion	0.314088
Sum squared resid	5.162295	Schwarz criterion	0.887226
Log likelihood	6.295590	Hannan-Quinn criter.	0.546047
F-statistic	52.11626	Durbin-Watson stat	0.575528
Prob(F-statistic)	0.000000		

Source: Researcher Computation using E-views 10

The Effective of Investment Allowance and Return on Assets

Result in table 6 disclosed that investment allowance has negative on return on assets with a coefficient value of -0.273364 and t-statistics value of -3.537215. This implies that 1 unit increase in investment allowance will contribute to 27% decrease in return on assets of selected sampled consumer goods manufacturing companies in Nigeria. The probability value of 0.0007 reveals that the effect of investment allowance on return on assets survival is statistically significant. The result suggests that we accept the alternate hypothesis which stated there is significant effect of investment allowance on return on assets

of listed consumer goods manufacturing firms in Nigeria. The finding associated with the followings; Essiet and Paago (2024) investigated the relationship between tax incentives and financial performance in Rivers State. The results of the findings showed that there is a strong positive significant relationship between investment allowance and measures of financial performance. Okoth (2023) investigated the potential effectiveness of tax incentives and subsidies in promoting economic development and growth in developing countries. Omesi and Maccarthy (2022) investigated tax incentives and financial performance of listed consumer goods manufacturing companies in Nigeria. The results of the findings were that there is positive and significant relationship between investment allowance and return on assets of listed consumer goods manufacturing companies in Nigeria. In other hand, the following findings disassociated with this study, Mauda and Saidu (2019) examined the effect of tax incentives on financial performance of listed consumer goods companies in Nigeria. The study found that investment allowance had positive but insignificant influence on the financial performance of the sampled firms. Nnubia and Fabian (2018) investigated the effect of tax incentives on economic growth in Nigeria. The results of the study showed that investment aid has a negative and significant impact on Nigeria's economic growth. Onyango (2015) determined the impact of tax incentives on the financial performance of five-star hotels in Nairobi County, Kenya. The study found a negative relationship between investment deductions and industrial building deductions with the financial performance of the five-star hotels.

The Effective of Annual Allowance and Return on Assets

Result in table 6 disclosed that annual allowance has positive on return on assets with a coefficient value of 0.031894 and a t-statistics value of 0.535073. This implies that 1 unit increase in annual allowance will contribute to 3% increase in return on assets of selected sampled consumer goods manufacturing companies in Nigeria. The probability value of 0.5941 reveals that the effect of annual allowance on return on assets survival is not statistically significant. The result suggests that we accept the null hypothesis which stated there is no significant effect of annual allowance on return on assets of listed consumer goods manufacturing firms in Nigeria. The finding disassociated with the followings; Nmehielle (2022) examined the relationship between tax incentive practices and financial performance of listed consumer goods firms in Nigeria. The study result indicated that there is a significant relationship between Annual Allowance and Return of Assets of listed consumer goods in Nigeria. Omesi and Maccarthy (2022) investigated tax incentives and financial performance of listed consumer goods manufacturing companies in Nigeria. The results of the findings were that there is positive and significant relationship between annual allowance and return on assets of listed consumer goods manufacturing companies in Nigeria and there is significant influence of share capital in the relationship between tax incentives and financial performance of listed consumer goods manufacturing companies in Nigeria. Oludi and Onowu (2022) determined the relationships between capital allowance, investment tax allowance, and return on assets for consumer goods companies in Nigeria. The study's findings, among other things, demonstrated that capital allowance and return on assets have a strong relationship for Nigerian consumer products companies.

Diagnostic Test

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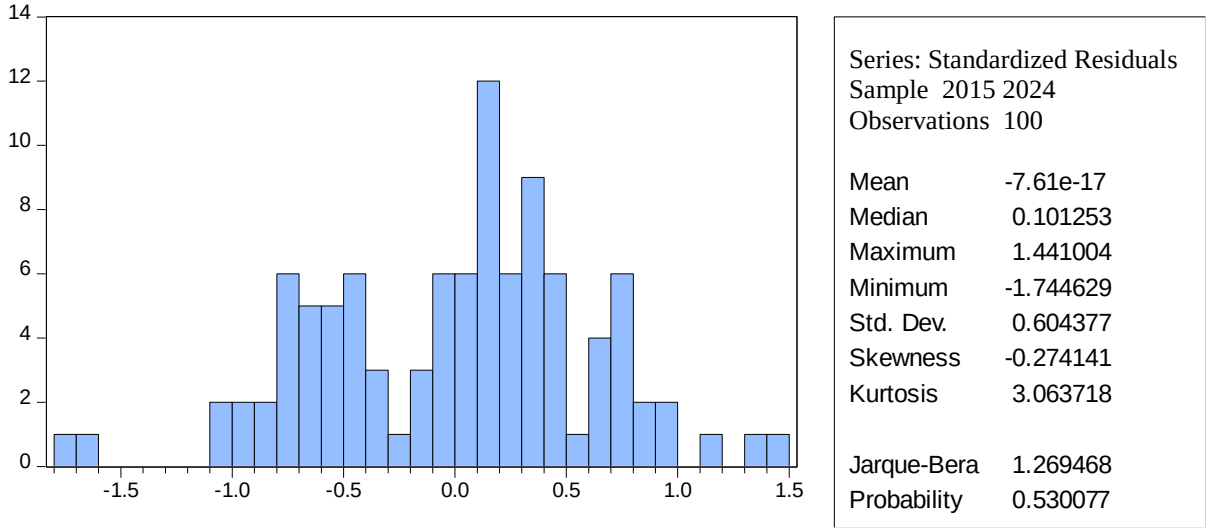

Figure 2: Histogram of Residuals on Model 1 (ROA)

The figure 2 above disclosed diagnostic test using normality test of residuals histograms as criteria for decision. The result indicates that the skeweness value is positive implies that the model has long right tail, the kurtosis value is greater than 3 that is clearly mesokurtic and finaaly, Jarque-Beta probability value is greater than 0.05 (0.530>0.05) and this means that that the residuals are normally distributed hence fixed effects model was appropriate estimated.

The Moderated Multiple Regression (MMR) Estimation

Table 7a Model Summary of Moderation Analysis on ROA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.058[a]	.003	-.017	.27492

a. Predictors: (Constant), INT, TINC

Table 7a provides information on the moderated results obtained from return on assets model. The moderated R^2 for the return on assets specifications is .003 that accounted for only 0.3% of the variations in return on assets while 99.7% was explained by unknown variables that were not included in the M**o**derated Multiple Regression model (MMR) in return on assets.

Table 7b ANOVA of Moderation Analysis on ROA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.025	2	.012	.162	.850[b]
	Residual	7.331	97	.076		
	Total	7.356	99			

a. Dependent Variable: ROA

b. Predictors: (Constant), INT, TINC

Table provides information on the moderated results obtained from return on assets model. The model has F-statistic values 0.162 with respective Prob. ** value 0.850[b] depicted that the moderated models is not properly fitted since the Prob. ** value is greater than the 5% decision criterion level.

Table 7c Coefficients of Moderation Analysis on ROA

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.133	.188		.704	.483

TINC	.001	.014	.009	.092	.927
INT	-.020	.036	-.057	-.557	.579

a. Dependent Variable: ROA

Statement of Hypothesis

H_{03}: There is no significant moderating effect of effective tax rate on the relationship between tax incentives and return on assets of listed consumer goods manufacturing companies in Nigeria.

Based on the results of the significant value from the above table 4.7c, it was disclosed that the interacted term (INT) of effective tax rate (ETR) has 0.579 which is greater than 0.05 significant level. The study accepted the null hypothesis (H_{03}**)** and concluded that there is no significant moderating effect of effective tax rate on the relationship between tax incentives and return on assets of listed consumer goods manufacturing companies in Nigeria.

CONCLUSION

Based on the data analysis, and discussion of findings, the study concluded that there is no significant moderated effect of effective tax rate on tax incentives and financial performance of listed consumer goods manufacturing companies in Nigeria for the time frame investigated. Other sub-conclusion are:

1. Investment allowance has negative and significant effect on return on assets of listed consumer goods manufacturing companies in Nigeria.
2. Annual allowance has positive and insignificant effect on return on assets of listed consumer goods manufacturing companies in Nigeria.
3. Effective tax rate has negative and insignificant moderating effect on the relationship between tax incentives and return on assets of listed consumer goods manufacturing companies in Nigeria.

RECOMMENDATIONS

Based on the synopsis of the findings and conclusion, the study advances the following recommendations:

1. Due to the complexity and dynamism of Nigeria's tax laws, manufacturing companies in Nigeria should make investment allowance (tax incentive) planning a part of their strategic financial planning, hire tax experts, and effectively use all-inclusive tax planning strategies available in order to significantly influence return on assets.
2. The study recommends that manufacturing companies should take advantage of allowable deductions in order to reduce their tax liability and improve their financial performance. Companies should ensure that they are aware of all allowable deductions and take full advantage of them in their tax planning.
3. The study recommended that government of Nigeria should encourage certain industries through that breaks associated with incentives which increase their returns on asset and that manufacturing companies that occur losses may apply those losses to previous tax payments In order to boost their returns on assets as long as they do not demand existing refunds in excess of cumulative tax payments in those years

Contribution to Knowledge

The study augments the stock of knowledge in this topical area through empirical assessment of the influence between tax incentives and financial performance. In the developing country context, extant literature has focused mainly on developed countries. This study has employed a moderated multiple regression **(**MMR) for capturing the causal influence between the dimensions of tax incentives and financial performance measures. These MMR are both predicative and provide incremental understanding of the dynamic elements of tax incentives and their effect on financial performance. This contribution is summarized in the flow chart below. The thick lines indicate strong influence while the dotted line indicates strong relationship.

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