
# Effect of Value Added Tax on Corporate Performance: A Study of International Breweries PLC Nigeria

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**Abstract**
The study examined the effect of value added tax on corporate performance in International Breweries PLC Nigeria. The specific objectives were: evaluate the effect of value-added tax (VAT) on profit for the year (PY) and return on capital employed (ROCE). This study employed quantitative research design. Study Area was International Breweries PLC Nigeria covering the period of 2012-2022. The geographical area of the study was Nigeria. The data used in this study were sourced from annual reports and statement of accounts of the selected organization under study. The choice for only manufacturing firms in South East Nigeria was because of homogeneity nature of organization. The data analytical techniques were descriptive statistics, correlation matrix and Ordinary Least Squares (GLS). The empirical results show that value added tax (VAT) has negative and significant effect on profit for the year (PY) in International Breweries PLC Nigeria (t-value -4.4680; P-value; 0.001575 < 0.05) and value added tax (VAT) has negative and significant effect on return on capital employed (ROCE) in International Breweries PLC Nigeria (t-value -6.5494; P-value; 0.0001 < 0.05). The recommends that government should increase the rate of value added tax in Nigeria so that the funds realized from value added tax will be expended on the provision of social and infrastructural facilities which ultimately will boost the economy by way of enhance the level of investment (encourage investors) which invariably create employment opportunity in the country.

**Keywords:** Value added tax; Corporate performance; Profit for the year; Return on capital employed; Return on investment

## Introduction

Taxation is the system of raising money to finance government services and activities. Government at all levels local, state, and national require people and business to pay taxes. Governments use the tax revenue to pay the cost of policy formulation, health programs, building schools, construct roads and provide national defense and many other public services (Singh, 2019). Value added tax (VAT) is a consumption tax levied at each stage of the consumption chain and borne by the final consumer of the product or service. The collection of VAT is comparatively simple, indiscriminating and hard to avoid. World over, major attention is on (VAT) with regards to reforms and reorganization. Perhaps, this has been owing to its sizeable contributions to government revenue, growth and development of many economies (Mu, Fentaw & Zhang, 2022) [13]. As a veritable source of government revenue, many countries have shifted and a few others are considering a shift towards a higher indirect taxation. For the fact that Value Added Tax rises spending on consumer goods, it is anticipated to affect the behaviour of the consumers. This implies that VAT changes price and consumption behaviour of the consumer. Consequently, cost effects of Value Added Tax and the resultant consumer behavioural pattern are issues of concern to different nations of the world and their Value Added Tax law.

Countries all over the world look for ways to boost their revenue, and this has necessitated the introduction of value added tax on goods and services in many nations of the world. For instance, in Africa, VAT has been introduced in Benin Republic, Cote d"Ivore, Guinea, Kenya, Madagascar, Mauritius, Senegal, Togo, and Nigeria. Available data supports that, in these nations, Value Added Tax has turn out to be the main provider of government income (Muguchu, Nelson & Wambugu, 2020; Mwangi, Gitau & Kung'u, 2021) [14, 15]. Nigeria introduced VAT in 1993; however its full implementation began on 1st January, 1994. Before its introduction, there was in existence, the Sales Tax. The underlying principle for replacing Sales Tax with Value Added Tax was as a result of some factors and considerations; noteworthy amongst these are the narrow nature of the Sales Tax in Nigeria as covered by Decree No. 7 of 1986. It covered only nine categories of goods as well as sales and services in registered hotels, motels and similar establishments. VAT was designed such that the burden is borne by the final consumer. Since VAT can be applied on goods as well as services it has also been termed as goods and services tax (GST) (Obiakor, Kwarbai & Okwu, 2015) [16]. A limited number of goods and services are exempted from Value Added Tax. Some of the goods excluded from Value Added Tax are drugs, pharmaceutical, essential foodstuff, books, learning materials, journals etc. The exempted services include medical services, services provided by micro finance banks and mortgage institutions, plays and performances conducted by educational institution as part of learning, as well as the supply of educational goods and services incidental to education by an educational institutions (Source: VAT Decree as Amended. Value Added Tax is an expenditure tax that is fairly simple to control and hard to avoid, and it has been accepted by many nations worldwide. There is evidence so far that Value Added Tax is an important source of income to the Nigerian government. For example, in the past 19 years, states and the Federal Government spending power has been boosted by over N4.273trillion Value Added Tax (VAT) revenues, Business Day research has shown (The Economist Ng).

VAT revenue is generated for distribution to the states and local governments in Nigeria. This helps to reduce over dependence on oil revenue; this assures a sustainable economic growth and development (Jayachandran, 2019) [9]. Despite the fact that the effectiveness of Value Added Tax as a means of income is impressive, yet it is not easy to try to methodically appraise the influence of Value Added Tax on customer's expenditure therefore, these is need for this study.

### Statement of the Problem

The ability to generate sustainable revenue remains a huge challenge for the Nigerian government, especially due to the decline and instability in oil prices which has affected revenue generation from the Nigerian oil and gas industry. As part of efforts to address its revenue challenges, the Federal Government earlier in the year launched the Strategic Revenue Growth Initiative (SRGI) to boost revenue generation by government agencies and enable it to meet its ever growing financial obligations. The objectives of the SRGI include an increase of the Value Added Tax (VAT) rate from the current rate of 5%, identification of new revenue sources and enhancing revenue collection from existing revenue sources (Andersen Tax Newsletter).

In another dimension, Ayedun, Durodola, Oloyede and Abiodun, (2018) [5] opined that increased charges for value added tax has negative implication on both manufacturing companies and business owners. The 2.2% increase in value added tax charges would lead to an increase in the cost of production and provision of goods and services, especially for those involved in ventures that require multiple stages of production. This is due to the fact that they will encounter costs in which VAT will be charged, at multiple stages of their production process. While VAT is simple to maintain, it is costly to implement. In Nigeria currently, the government is losing millions in evasion already (Eze & Atagboro, (2020) [6]. Statistics show that currently out of every ten (10) Small and Medium Enterprises (SMEs), only two (2) comply with tax laws. Therefore, an increase will most likely have an even more adverse effect on revenue generation (Eze & Atagboro, (2020) [6].

Many business owners neglect and fail to comply with rules and regulations of VAT system in Nigeria. Some business owners after registering, automatically becoming a non-commission earning agents to FIRS for VAT, fail to make their monthly VAT rendition and payment regularly. The burden of tax under VAT is regressive and some business incurs additional cost of keeping VAT records and processing information required for the payment of the tax and jointly returned from tax agent. This makes it difficult for VAT computation and administration in Nigeria (Ezejiofor, Adigwe, Echekoba & Nwaolisa, 2015) [7]. In the light of the above backdrops, there is the need to ascertain the effect of value added tax on corporate performance in Nigeria: a study of International Breweries PLC Nigeria.

### Objectives of the Study

The broad objective of this study is to examine the effect of value added tax on corporate performance in International Breweries PLC Nigeria. The specific objectives were:

1. Evaluate the effect of value-added tax (VAT) on profit for the year (PY) in International Breweries PLC Nigeria.
2. Ascertain the effect of value-added tax (VAT) on return on capital employed (ROCE) in International Breweries PLC Nigeria.

### Research Questions

Owing to the problem statement, this study was channeled to answer the following questions.

1. What is the extent value-added tax (VAT) effects profit for the year (PY) in International Breweries PLC Nigeria?
2. To what extent does value-added tax (VAT) effects return on capital employed (ROCE) in International Breweries PLC Nigeria?

### Significance of the Study

The outcome of this study is beneficial and relevant to government, policy makers, Management of manufacturing firms, general public and researchers.

The outcome of this study will be of beneficial to Nigeria government because it will help the government in her policy formulation to suggest alternative strategies that can aid effective administration and monitoring of the VAT process and procedures. The list of vatable goods and services will also be mentioned in subsequent chapter together with the countries that had practiced this system of taxation with the date of adoption.

The outcome of this study would help government to put more efforts at formulating tax policies that will enhanced manufacturing sector output, strengthen the economy through provision of infrastructure and redistribution of income and wealth.

The outcome of this study has information to management of manufacturing firms about the impact of value Added Tax on the business. It gives information for the governments about the drawback of the system, and to suggest some possible solution to solve impact of VAT on business enterprises.

## Conceptual Review

### Value-added Tax

The concept of Value Added Tax as a concept originated from the French Economist, Maurice Laure. It was originally referred to as "taxe sur la valueur". Agu, Onwuka & Aruomah, 2019) [3] define VAT as a consumption tax payable on the goods and services consumed by persons, business organizations and individuals (Arene & Ndomadu, 2019; Adegbite, 2018) [4, 1]. The VATs payable by tax payers depend on their consumptions rather than their incomes. VAT applies equally to every purchase. In contrast with a progressive income tax, it does not discriminate among the classes of income earners. In some countries, VAT is called Goods and Services Tax (GST). (Oraka, Okegbe & Ezejiofor, 2017) [18]. Kuria, (2018) [12] defined tax as a compulsory levy by the government on individuals, firms, goods and services in order to raise revenue for its responsibilities and to promote social equity through the redistribution of income effect of taxation.

### Corporate performance of Manufacturing Firms

The concept of firm performance or effectiveness holds a core position in the field of organizational research as well as in the management of private and public organizations. However, it is often limited to its financial facets. Actually, most assessment of firm performance are based on measures such as return on investment, profit per share, sales. In the field of strategic management, firm performance as a salient construct is often used as a dependent variable. There is no uniformity in its definition. The increase in the number of concepts used in the definition of performance is sometimes confusing as it has been used to imply productivity, profitability, competitiveness, and efficiency (Arene & Ndomadu, 2019) [4]. A firm's success is visible via its performance at a particular period. People are encouraged to work for a firm that has a good performance, therefore, managers must step up efforts to increase a firm's performance by assessing its operations. Firm performance can be defined as the long-range effort to increase the problem-solving capacity of a firm to adapt to changes in its external operations.

### VAT and Profit of the Year (PY)

The tax policy is known to affect the business competitiveness of a country because higher tax rate lead to higher cost of doing business and subsequently higher prices on consumers goods and services. In this case, tax levies significantly impact the businesses in terms of financing decision and performance. This is supported by Oraka, Okegbe & Ezejiofor, (2017) [18] where tax policies affect the effectiveness and efficiency on manufacturing sector. Among these taxes are income tax, employment tax, corporation tax, capital gain tax, value added tax and sales tax.

Yoke and Sok-Gee found that the corporation tax is negative correlated with the firm's productivity and investment performance. This is supported by Agu, Onwuka, and Aruomah, (2019) [3] that found higher tax rate negatively affects the firm's Corporate Performance in examining the relationship between taxation and corporate Performance. They found that net profit of the firm declines by 0.07% and output declines by 0.31% with every increase of 1% of corporate tax rate. This is because higher tax rate increases the tax burden of the firm and ultimately limit the fund for reinvestment and expansion. This supports the study by Vartia where higher corporate and personal income taxes are negatively impact on the firm's investment activity and results to low productivity.

### VAT and Return on capital employed (ROCE)

Arene and Ndomadu, (2019) [4] found that property taxation is negatively correlated to firm's employment, capital and sales as well as affected total factor productivity significantly of Italian manufacturing firms. This proves that existence of taxes negatively related to the firm's profitablility and liquidity (Adegbite, 2018) [1]. Hence, the excessive taxation would jeopardize the performance of the firm in terms of financial and productivity. A sound fiscal policy on tax is crucial to overcome the negative impact of taxation on manufacturing sector's performance. They advocate that the fiscal policy in a country crucially and require managed carefully in order to attract foreign direct investment. Further literature explains more in depth in regards of VAT as part of the tax structure has significant impact to the manufacturing sector. The impact of VAT on the manufacturing sector's performance is different in different countries due to differences in the tax policy and the way it being implemented. In most of the developing countries such as Malaysia and Singapore, VAT was created to replace other tax system like sales tax while VAT serves as an additional tax system in developed country such as United States.

## Theoretical Review

### Laffer curve Theory of Taxation

The Laffer curve theory of taxation is a theory formalized by supply-side economist Arthur Laffer in 1974 to show the relationship between tax rates and the amount of tax revenue collected by governments. The Laffer curve describes the relationship between tax rates and total tax revenue, with an optimal tax rate that maximizes total government tax revenue. The Laffer curve states that if tax rates are increased above a certain level, then tax revenues can actually fall because higher tax rates discourage people from working. If taxes are too high along the Laffer curve, then they will discourage the taxed activities, such as work and investment, enough to actually reduce total tax revenue. In this case, cutting tax rates will both stimulate economic incentives and increase tax revenue.

The Laffer curve is based on the economic idea that people will adjust their behavior in the face of the incentives created by income tax rates. Higher-income tax rates decrease the incentive to work and invest compared to lower rates. If this effect is large enough, it means that at some tax rate, and further increase in the rate will actually lead to a decrease in total tax revenue. For every type of tax, there is a threshold rate above which the incentive to produce more diminishes, thereby reducing the amount of revenue the government receives.

### 2.4. Empirical Review

Mu, Fentaw and Zhang, (2022) [13] examined impacts of value-added tax audit on tax revenue performance in Amhara Region, Ethiopia. Specifically, the study sought to determine impact of value-added tax audits, company income tax, personal income tax and property tax on tax revenue performance in Ethiopia. The method of data analysis was multi-regression and correlation analysis. The study found that revenue potential to cover its expenditures, because of inefficient VAT audit functions, poor system of tax education, lack of tax resources, and long time served tax rate, the tax revenue performance is inefficient. The study assured that VAT audit and tax education significantly affect tax revenue performance. The scarcity of resources for the VAT audit function is a critical problem. Even if the existed technology networked up to woreda levels, tax auditors did not use this system appropriately. Long-time-served tax rates also greatly influence tax revenue performance. The study recommends that there should be a chain mentor relationship between experienced auditors to new and ineffective auditors. The government should supply appropriate technology that is simple to use and quickly detect tax evasion.

Mwangi, Gitau, and Kung (2021) [15] conducted a study to determine the influence of VAT incentives on CORPORATE PERFORMANCE of manufacturing firms in Kenya. The specific objective of the study was to examine the influence of VAT incentives on CORPORATE PERFORMANCE of manufacturing firms in Kenya. Descriptive survey research design was adopted where a sample of 211 respondents was selected from a target population of 447 manufacturing firms using stratified random sampling technique. The study collected data for a period covering 10 years, which was from 2009 to 2018. The targeted respondents were the accountants and officers in senior management. The response rate on the questionnaires issued was 73.5%. The data analytical technique was mean, standard deviation and regression. The findings of the study revealed that VAT incentives had statistically significant influence on corporate performance of manufacturing companies in Kenya. The study concluded that influence of VAT incentives leads to improvement in corporate performance of manufacturing firms in Kenya. Hence, VAT incentives are key to corporate performance of manufacturing companies. The study therefore recommended that the management of manufacturing companies should utilize VAT incentives that are offered by the government, and the government should review the VAT policy so as to widen the gap on VAT incentives.

Okoro, (2021) [17] determined the effect of value added tax on the performance of manufacturing firms in Nigerian. The specific objectives of the study were to examine effect of value-added tax on net profit margin (NP), return on capital employed (ROCE) and earnings per share (EPS) over a period 1993 to 2018. Ex post facto research design was adopted for this study. Secondary data method was adopted in obtaining data on value added tax, net profit margin, return on capital employed and earnings per share. These data were obtained from CBN statistical bulletin, Nigeria Stock Exchange, Federal Inland Revenue Services and journals. The data obtained were analyzed using Simple regression analysis. Findings shows that value added tax has significant effect on the performance of Manufacturing firms Nigeria. It was also discovered that VAT has a negative relationship with Net profit margin, Return on Capital Employed and Earnings per share of manufacturing firms. Finally, we found that increase in VAT will decrease in ROCE level, NP and EPS of manufacturing firms in Nigeria. The implication of these findings is that Nigerian manufacturing firms will experience slow development. Based on these findings, the researcher recommends that Nigerian manufacturing firms should put in place fiscal policies that will enhance investment in industries and technology which will stimulate overall productivity growth.

Jideofor, (2021) [10] examined value added tax (VAT) and price stability in Nigeria. Value Added Tax (VAT) is a consumption tax on the value added to a product in the process of production. Like all other indirect taxes, it is a tax that targets the final consumer of goods and services. The main purpose of VAT in Nigeria is to increase government (state and Local) revenue from the non-oil sector thereby reducing the government's dependence on oil sales and the budget deficits. In this research work my aim is to determine the stabilizing roles of VAT in the Nigerian economy. The study employed multiple regression analysis as a method of study using the ordinary least square (OLS) regression technique in estimation. Result of the analysis revealed that price level is not stimulated by VAT in Nigeria, inflation in Nigeria is stimulated to a very high extent by openness and increased tax revenue from VAT does not give rise to inflation in Nigeria. The study advocate for relative increase in the overall share of VAT within the framework of fiscal policy whenever expansionary fiscal measures is adopted for achieving the goal of economic growth.

Wadesango and Chirebvu, (2020) [21] examined impact of value added tax (VAT) on small and medium enterprises in a developing country. This study therefore sought to determine the factors that affect VAT compliance; identify the VAT collection methods; determine how VAT is affecting the operations and profits of the firms; and describe the status of VAT compliance among SMEs in this developed country which shall be referred to as country A. Structured survey questionnaires were distributed to conveniently sampled 50 owners and managers of the firms and a response rate of 76% was recorded. The data analytical technique was multi-regression. Results indicated that VAT compliance is affected mainly by characteristics of the individuals, features of the VAT system itself, and environmental factors such as political and socio-economic situation in this developed country. The non-compliance among most SMEs is a measure to survive the harsh economic conditions. The high cost of implementing such a complex system is so high for SMEs that attempt to comply predict the folding up of that small business. Against the study results, it is recommended that: VAT authorities reconsider the current VAT system with the view to either imposing a VAT relief for SMEs or installing VAT systems within the SMEs so that such costs do not directly go to the SMEs; Furthermore, government might need to consider implementing VAT awareness and training programs to help build the capacity for SMEs to administer the VAT.

Inim, Udoh and Ede, (2020) [8] examined the impact of taxation on the growth of Small and Medium Enterprises (SMEs) in Nigeria. Specifically, the study evaluates the impact of Company Income Tax (CIT), Custom and Excise Duty (CEDT) and Value Added Tax (VAT) on the growth of Small and Medium Enterprises (SMEs) in Nigeria from 2007 to 2019. Data was gathered from the Central Bank of Nigeria Statistical Bulletin and Small and Medium Enterprises

Development Agency of Nigeria (SMEDAN). The study adopted the co-integration and error correction modelling as its technique of analysis. Company Income Tax (CIT) and Value Added Tax (VAT) were found to have significant impact on the growth of SMEs in Nigeria, Custom and Excise Duty (CEDT) was found to have insignificant impact on their growth. As expected however, the three variables, CIT, VAT and CEDT were found to be inversely related with SMEs growth. The study therefore recommends among others that for taxation to grow the SMEs, tax policies especially those relating to CIT and VAT should be properly formulated and carefully administered in such a way that such policies directly promote the growth of SMEs. In particular, the government should consider a downward review of the current VAT rate of 7.5%. In addition to reducing tax rates for the SMEs, other incentives, reliefs and allowances such as loss reliefs, pioneer status, tax holidays, capital allowance etc. should be specially packaged for SMEs to enhance their productivity and growth.

Koloane and Makanaisa, (2020) [11] conducted a study to determine the impact of increasing VAT rate on state revenue in South African. Specifically, the study sought to evaluate the impact of the increase in VAT rate from 14% to 15% on the state revenue as well as on future VAT collections. VAT historical data spanning from April 2009 to March 2018 (108 observations) on a fixed rate of 14% was obtained. The method of data analysis was autoregressive moving average (ARIMA model). Based on the model fitted values, a percentage increase in VAT rate increased payments by 4.2%in 2018/19 and 5.8%in 2019/20.This results in a slight increase in the total state revenue of 1.1% and 1.5% in 2018/19 and 2019/20 respectively. Furthermore, the model forecast R313.9bn to be collected in 2020/21 at 15% rate, the lower collection is due to the covid-19 impact on revenue collection. The study recommends that South African government should make budgetary plans and future decisions by taking into account more accurate projected VAT collection. However, monitoring of the model is crucial as the prediction power deteriorate in the long run.

Eze and Atagboro, (2020) [6] examined the effect of Value Added Tax (VAT) revenue generation on Price firmness in Nigeria. Specifically, the study sought to investigate the effect of Value Added Tax (VAT) revenue generation on inflation rate in Nigeria over the period 1994 to 2018. The ex-post facto research design was type of research design used in the study. The study employed simple linear regression model (ordinary least square (OLS) via E-Views 10 statistical package in analyzing data. The results of the inquiry indicate that there is a significant connection between VAT and price stability (Inflation Rate) in Nigeria. The result of the investigation revealed that divergent to the view by commercial business owners that VAT elevated the prices of their products, which engenders inflationary outcome. Value Added Tax (VAT) has no inflationary significance in Nigeria. Increased tax returns from VAT does not give rise to inflation in Nigeria. The study recommends that, although transparency is inevitable in today's global economy, sequencing of faces of liberalization is necessary to check possible inflationary consequences in Nigeria, therefore advocates for relative increase in the overall share of VAT within the context of fiscal policy whenever expansionary financial measures are adopted for achieving the goal of economic growth.

Muguchu, Wawire and Wambugu, (2020) [14] examined impact of value added tax on productivity in Kenya. The specific objective of the study was the influence of value-added tax, company income tax and total tax revenue on real GDP in Kenya. The study sought to estimate the productivity of VAT over the period 1973-2016 using data collected from Kenya National Bureau of Statistics and Kenya Revenue Authority's database. OLS method was adopted to estimate buoyancy of VAT while divisia index approach was adopted to estimate elasticity of VAT. The study found that, the VAT system was buoyant with a value greater than one while the elasticity was 0.79 which was less than one implying VAT system was inelastic. The study concluded that the tax reforms adopted during the study period had impacted positively on VAT performance hence the buoyancy value greater than one. The study recommended that government should mobilize more revenue from VAT, reforms focusing on enhancing VAT compliance and expanding tax base should be emphasised.

**Gaps in Literature**

Owing to data available in this study, there are limited studies on effect of value added tax VAT on corporate performance of International Breweries PLC Nigeria. Scholars have paid less attention on area of our research interest taking cognizance of return on capital employed return on investment and profit after tax as measure for corporate performance of International Breweries PLC Nigeria.

Owing to data available in this study, there is no clear consensus till date in the literature as whether VAT promote or hinders corporate performance of International Breweries PLC Nigeria as empirical result varies from region to region, country to country. This study will bridge the gap by providing clear explanation as regards to cause-effect relationship between VAT and International Breweries PLC Nigeria.

**Methodology**

This study employed quantitative research design. Study Area was Lagos State The study adopts purposive sampling and random sampling technique to select International Breweries PLC Nigeria. The choice for only International Breweries PLC Nigeria was because of homogeneity nature of organizational function. The scope of the study covered the period of 2012-2022. The geographical area of the study was Nigeria. The data used in this study were sourced from annual reports and statement of accounts of the selected organization under study. The data analytical techniques descriptive statistics, correlation matrix and Generalized Ordinary Least Squares (GLS). The study employed e-view version (9) statistical application software to analysis the data because it is user-friendly software.

**Model Specification for the Study**

Thus, the model of this study is represented in a functional form as shown below:

| | |
|---|---|
| Profit of the year (PY)=(Value added Tax VAT) | (3.5.1) |
| Return on Investment (ROI)=(Value added Tax VAT) | (3.5.1) |
| Return on capital employed (ROCE)=(Value added Tax VAT) | (3.5.1) |

Where: Return on Investment (ROI); return on capital employed (ROCE), Profit of the year (PY) were dependent variables while Value added Tax (VAT) was independent variable. Specifically, to achieve the objective of this study and based on the property of the linearity of variables, the functional relationship is modeled in a linear equation to yield Equation 2:

$ROCE_{it} = a_o + VAT\ b_1 + \mu it$ (2)
$PY_{it} = a_o + VAT\ b_1 + \mu it$ (2)
$ROI_{it} = a_o + VAT\ b_1 + \mu it$ (2)

Where: Uit is the error term which denotes other variables that are not specified in the model; i represent the number of manufacturing firms and t is the number of years.

### Data Presentation

**Table 1:** Descriptive Statistics for International Breweries

| | ROI | PY | ROCE | VAT |
|---|---|---|---|---|
| Mean | 207174.1 | 117770.8 | 125716.7 | 68800.27 |
| Median | 192447.0 | 124714.0 | 104356.0 | 70746.00 |
| Maximum | 448069.0 | 135514.0 | 210257.0 | 93325.00 |
| Minimum | 48525.00 | 26739.00 | 57922.00 | 33524.00 |
| Std. Dev. | 99877.74 | 30499.34 | 50457.38 | 18246.55 |
| Skewness | 0.968499 | -2.737521 | 0.397765 | -0.376004 |
| Kurtosis | 4.545572 | 8.757357 | 1.801272 | 2.395317 |
| | | | | |
| Jarque-Bera | 2.814512 | 28.93148 | 0.948665 | 0.426780 |
| Probability | 0.244814 | 0.000001 | 0.622300 | 0.807841 |
| | | | | |
| Sum | 2278915. | 1295479. | 1382884. | 756803.0 |
| Sum Sq. Dev. | 9.98E+10 | 9.30E+09 | 2.55E+10 | 3.33E+09 |
| | | | | |
| Observations | 11 | 11 | 11 | 11 |

***Source*:** Author's computation using e-views version 9

The table shows descriptive statistics of the variables. In the model established in the study, there is three dependent variable and one independent variables. These variables consist of Return on Investment (ROI), Profit for the Year (PY), Return on capital employed (ROCE) and Value added tax (VAT) respectively. The mean of Return on Investment (ROI) was 2017174.1, the median was 192447.1, maximum was 448069.0, minimum was 48525.00 and sum of the variable was 2278915.23 respectively. The mean of Profit for the Year (PY) was 117770.8, the median was 12471.0, maximum was 135514.0, minimum was 26739.00, and sum of the variable was 1295479.09 respectively. The mean of Return on capital employed (ROCE) was 125716.7, the median was 104356.0, maximum was 210257.0, minimum was 57922.00 and sum of the variable was 1382884 respectively. The mean of Earnings per Share (EPS) was 169650.4, the median was 104850.0, maximum was 1638241.0, minimum was 22048.00, and sum of the variable was 16625740 respectively. The mean of Value added tax (VAT) was 68800.27, the median was 70746.00, maximum was 93325.00, minimum was 33524.00 and sum of the variable was 756803.0 respectively. The probability of the Jarque-Bera statistics shows that profit of the year (PY) data series are normally distributed (P-value = 0.000001 < 0.0500) while The probability of the Jarque-Bera statistics shows that return on investment (ROA), return on capital employed (ROCE) and value added tax (VAT) data series are not normally distributed (P-value 0.000001 > 0.0500). The skeweness statistics shows that the variables are positively skewed, showing evidence of moderate skeweness (PY and ROI) and high skeweness (VAT and ROCE). The result shows that the variables are stable and predictable, given the very low standard deviation of less than one (1) for all variables.

### 4.2. Correlation Matrix of the Variables

**Table 2:** Result of Correlation Matrix

| | ROI | PY | ROCE | VAT |
|---|---|---|---|---|
| ROI | 1.000000 | -0.104751 | -0.191150 | -0.073761 |
| PY | -0.104751 | 1.000000 | 0.369193 | 0.964391 |
| ROCE | -0.191150 | 0.369193 | 1.000000 | 0.381471 |
| VAT | -0.073761 | 0.964391 | 0.381471 | 1.000000 |

This correlation matrix presents a table showing correlation coefficients between sets of variables. Each random variable ($X_i$) in the table is correlated with each of the other values in the table ($X_j$). This result of correlation matrix helps to identify which pairs of variables have the highest correlation. This test is to detect whether exact or perfect relationship exist among explanatory variables (multicollinearity). The Return on Investment (ROI) and Profit for the Year (PY) have no linear relationship between the two variables (-0.1911). The Return on Investment (ROI) and Return on capital employed (ROCE) have no linear relationship between the two variables (-0.1911). The Return on Investment (ROI) and Value added tax (VAT) have no linear relationship between the two variables (-0.0737). This test presented clear understanding on the assumption of ordinary least square that there is no perfect or exact linear relationship among explanatory variables. The result of correlation matrix showed that every explanatory variable in the study is linearly independent of each other.

### 4.6. Estimation Model One

**Table 4:** Results of Single Regression

| | | | | |
|---|---|---|---|---|
| Dependent Variable: PY | | | | |
| Method: Least Squares | | | | |
| Date: 07/10/23 Time: 17:37 | | | | |
| Sample: 2012 2022 | | | | |
| Included observations: 11 | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| VAT | -0.318621 | 0.071427 | -4.460802 | 0.0016 |
| C | 20858.27 | 51906.32 | 0.401845 | 0.6972 |
| R-squared | 0.688568 | Mean dependent var | | 203619.9 |
| Adjusted R-squared | 0.653964 | S.D. dependent var | | 71744.94 |
| S.E. of regression | 42203.82 | Akaike info criterion | | 24.30137 |
| Sum squared resid | 1.60E+10 | Schwarz criterion | | 24.37372 |

| | | | | |
|---|---|---|---|---|
| Log likelihood | -131.6576 | Hannan-Quinn criter. | | 24.25577 |
| F-statistic | 19.89875 | Durbin-Watson stat | | 2.107760 |
| Prob(F-statistic) | 0.001575 | | | |

***Source***: E-view Results

In testing this hypothesis, value added tax (VAT) was regressed against profit for the year (PY). The result of the single-regression analysis showed the model to examine the effect of value-added tax (VAT) on profit for the year (PY) in International Breweries PLC Nigeria.

**Profit for the year = 0.057 - 0.957 VAT**

The empirical result showed that the coefficient of value added tax (VAT) has negative effect on profit for the year (PY); it means that value added tax (VAT) has negative and indirect effect on profit for the year (PY). The results of the t – statistics denoted that the coefficient was statistically significance. This is because observed values of t – statistics (-4.4680) is greater than its P-values (0.016). The results of the F – statistical test showed that the overall regression of the hypothesis one was statistically significance. This was because observed value of the F – statistics (19.8987) was greater than its P-value (0.000). Again, our empirical result showed that the Pearson product moment correlation analysis (r) was 0.6509. The strength of relationship between the two variables was high. However, we rejected the null hypothesis and concluded that value-added tax (VAT) has negative and significant effect on profit for the year (PY) in International Breweries PLC Nigeria.

### 4.6. Estimation Model Two

**Table 4:** Results of Single Regression

| | | | | |
|---|---|---|---|---|
| Dependent Variable: ROCE | | | | |
| Method: Least Squares | | | | |
| Date: 07/10/23 Time: 17:39 | | | | |
| Sample: 2012 2022 | | | | |
| Included observations: 11 | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| VAT | -0.549271 | 0.083865 | -6.549472 | 0.0001 |
| C | 47255.06 | 27241.31 | 1.734684 | 0.1168 |
| R-squared | 0.826575 | Mean dependent var | | 125716.7 |
| Adjusted R-squared | 0.807305 | S.D. dependent var | | 50457.38 |
| S.E. of regression | 22149.28 | Akaike info criterion | | 23.01196 |
| Sum squared resid | 4.42E+09 | Schwarz criterion | | 23.08431 |
| Log likelihood | -124.5658 | Hannan-Quinn criter. | | 22.96636 |
| F-statistic | 42.89558 | Durbin-Watson stat | | 1.740998 |
| Prob(F-statistic) | 0.000105 | | | |

***Source***: E-view Results

In testing this hypothesis, value added tax (VAT) was regressed against return on capital employed (ROCE). The result of the single-regression analysis showed the model to examine the effect of value-added tax (VAT) on return on capital employed (ROCE) in International Breweries PLC Nigeria.

**Return on capital employed = 47255.06 - 0.5492 VAT**

The empirical result showed that the coefficient of value added tax (VAT) has negative effect on return on capital employed (ROCE); it means that value added tax (VAT) has negative and indirect effect on return on capital employed (ROCE). The results of the t – statistics denoted that the coefficient was statistically significance. This is because observed values of t – statistics (-6.5494) is greater than its P-values (0.0001). The results of the F – statistical test showed that the overall regression of the hypothesis one was statistically significance. This was because observed value of the F – statistics (42.8955) was greater than its P-value (0.000). Again, our empirical result showed that the Pearson product moment correlation analysis (r) was 0.8073. The strength of relationship between the two variables was high. However, we rejected the null hypothesis and concluded that value-added tax (VAT) has negative and significant effect on return on capital employed (ROCE) in International Breweries PLC Nigeria.

**Test of Hypotheses**

The results for the various hypotheses testing are presented in the section.

**Test of Hypothesis one**

**$H_{O1}$ Value-added tax (VAT) has no significant effect on profit for the year (PY) in International Breweries PLC Nigeria**

In testing this hypothesis, value added tax (VAT) was regressed against profit for the year (PY). The empirical result showed that the coefficient of value added tax (VAT) has negative and significant effect on profit for the year (PY) in International Breweries PLC Nigeria (t-value -4.4680; P-value; 0.001575 < 0.05). The null hypothesis was rejected and alternative hypothesis was accepted.

**Test of Hypothesis two**

**$H_{O2}$ Value-added tax (VAT) has no significant effect on return on capital employed (ROCE) in International Breweries PLC Nigeria**

In testing this hypothesis, value added tax (VAT) was regressed against return on capital employed (ROCE). The empirical result showed that the coefficient of value added tax (VAT) has negative and significant effect on return on capital employed (ROCE) in International Breweries PLC Nigeria (t-value -6.5494; P-value; 0.0001 < 0.05). The null hypothesis was rejected and alternative hypothesis was accepted.

## Discussion of the Results

### Effect of value-added tax (VAT) on profit for the year (PY) in International Breweries PLC Nigeria

It was observed from the hypothesis tested that the coefficient of value added tax (VAT) has negative and significant effect on profit for the year (PY) in International Breweries PLC Nigeria (t-value -4.4680; P-value; 0.001575 < 0.05). The finding of this study was in line with the study of Mu, Fentaw and Zhang, (2022) [13] that examined impacts of value-added tax audit on tax revenue performance in Amhara Region, Ethiopia. Specifically, the study sought to determine impact of value-added tax audits, company income tax, personal income tax and property tax on tax revenue performance in Ethiopia. The method of data analysis was multi-regression and correlation analysis. The study found that revenue potential to cover its expenditures, because of inefficient VAT audit functions, poor system of tax education, lack of tax resources, and long time served tax rate, the tax revenue performance is inefficient. The study assured that VAT audit and tax education significantly affect tax revenue performance. The scarcity of resources for the VAT audit function is a critical problem.

### 4.4.2 Effect of value-added tax (VAT) on return on capital employed (ROCE) in International Breweries PLC Nigeria

It was observed from the hypothesis tested that the coefficient of value added tax (VAT) has negative and significant effect on return on capital employed (ROCE) in International Breweries PLC Nigeria (t-value -6.5494; P-value; 0.0001 < 0.05). Jideofor, (2021) [10] was not full support of the finding that examined value added tax (VAT) and price stability in Nigeria. Value Added Tax (VAT) is a consumption tax on the value added to a product in the process of production. Like all other indirect taxes, it is a tax that targets the final consumer of goods and services. The main purpose of VAT in Nigeria is to increase government (state and Local) revenue from the non-oil sector thereby reducing the government's dependence on oil sales and the budget deficits. In this research work my aim is to determine the stabilizing roles of VAT in the Nigerian economy. The study employed multiple regression analysis as a method of study using the ordinary least square (OLS) regression technique in estimation. Result of the analysis revealed that price level is not stimulated by VAT in Nigeria, inflation in Nigeria is stimulated to a very high extent by openness and increased tax revenue from VAT does not give rise to inflation in Nigeria.

## Summary of Findings

### The following are the major findings of the study

1. The empirical result showed that the coefficient of value added tax (VAT) has negative and significant effect on profit for the year (PY) in International Breweries PLC Nigeria (t-value -4.4680; P-value; 0.001575 < 0.05).
2. The empirical result showed that the coefficient of value added tax (VAT) has negative and significant effect on return on capital employed (ROCE) in International Breweries PLC Nigeria (t-value -6.5494; P-value; 0.0001 < 0.05).

## Conclusion

The study concludes that value added tax has negative and significant effect on corporate performance in International Breweries PLC Nigeria. This study set out to carry out an empirical analysis on the effect of value added tax on corporate performance in International Breweries PLC Nigeria from the periods 2012 to 2022. Descriptive statistics and correlation matrix were pre-estimation tests that were carried out in the study. The descriptive statistics provide nature and characteristic of the variable, the correlation matrix ensures that variable of the study does not have perfect linear correlation among explanatory variables. The findings of this study are interesting because it revealed that much is still needed to be done by government in the area effective collection of taxes from both company income tax and custom and excise duties especially at this time when the price of oil has declined in the international market.

## Recommendations of the Study

Based on the findings of this study, the following recommendations were made.

I. Government should increase the rate of value added tax in Nigeria so that the funds realized from value added tax will be expended on the provision of social and infrastructural facilities which ultimately will boost the economy by way of enhance the level of investment (encourage investors) which invariably create employment opportunity in the country.

II) FIRS should develop software to record VAT, if the economy is allowed. Each taxable item will be coded in the computer. During the time of sale employee will feed the code of the item, immediately the item and the VAT amount and total price will be displayed. Government should, from time to time, intervene in the activities of producers and dealers of alcoholic drinks in South East Nigeria.

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