

Government Policies on Value Added Tax (VAT), Macroeconomic Variables, and Manufacturing Firm Performance in Nigeria

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Abstract

The study examined the concept of value-added tax (VAT) and its link with the manufacturing sector in Nigeria. Its major objective was to find out how Nigeria can achieve maximum industrialization using VAT. The study used primary data through the usage of questionnaires. A total of 100 questionnaires were distributed, 10 for each staff of the selected manufacturing firms, out of which 98 were returned out of the questionnaires distributed. The data obtained from the responders were tested with the Analysis of Variance (ANOVA) regression. Findings revealed that, first, there was a negative and significant impact between value-added tax and manufacturing company's output. Also, exchange rate had a negative and significant impact on manufacturing company's output. Finally, inflation had a negative and significant impact on manufacturing company's output. The study therefore recommended that Captains of industries should attend seminars, conferences, workshops, and trainings on VAT and its benefits as this would boost their knowledge and compliance of VAT payment.

Keywords: *Value added tax, ANOVA regression, Inflation, Exchange rate, Questionnaire*

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Background to the Study

Taxation, in this context, is the process or apparatus by which communities or groups of people are forced to contribute in some agreed-upon amount and method for the administration and growth of society (Olufidipe, 2019). One of the most important sources of money for the government is taxation. Tax is a significant levy levied by various levels of government on individuals and businesses. There is also no quid pro quo between taxpayers and how the government uses the money they pay in taxes (Olufidipe, 2019). To put it another way, the government is not compelled to explain to a taxpayer how his or her money is spent. In 1986, Nigeria merged its sales tax with its income tax. In Nigeria, the value-added tax (VAT) is a federal government tax that is administered by the Federal Inland Revenue Service (FIRS). Within the IFRS framework, VAT has a directorate with its headquarters in Abuja. It has a network of zonal and local offices around the federation. A director leads the tax directorate, which is supported by two deputy directors. The VAT was implemented in 1993, and it resulted in the repeal of the sales tax. According to Aigbokhaevbolo and Ofanson (2015), the following reasons explain why sales tax was replaced by VAT:

1. The scope of the Nigerian sales tax is limited. It only covers nine categories of items, as well as sales and services in hotels, motels, and associated institutions that are registered.
2. While the sales tax act was focused solely on locally manufactured goods, the value-added tax (VAT) is a consumption tax that is based on people's general purchasing habits, resulting in a large base.

So far, the evidence suggested that VAT revenue is already a significant source of revenue in Nigeria. For example, realized VAT collection in 1994 was N8.189 billion, a 36.590 per cent increase over the year's budgeted N6 billion. Similarly, the actual VAT collection in 1995 was N21 billion, compared to the N12 billion expected. VAT contributed roughly 4.06 percent to the total nationally collected revenue in 1994 and 5.93 per cent in 1995. In 2008, VAT collected a total of N404.5 billion (5.1 per cent) of total income.

Aigbokhaevbolo and Ofanson (2015), quoting section 7 (2) of the act (then decree), specified that value added tax shall be administered and regulated by the federal board of inland revenue service (FIRS), but shared by the three tiers of government in Nigeria from 1999 to date as follows:

Federal government: 15%

State government: 50

Local government: 35%

According to Aregbeyen (2016), value-added tax (VAT) is a consumption tax collected at each level of the consumption chain and paid by the product or service's end customer. Nigeria's industrial industry is crucial to the country's economy. According to Asemota and Eweka (2018), from the National Bureau of Statistics (NBS) sectoral distribution of value-added tax (VAT) for the period January to November 2017, the manufacturing sector generated N121.03 billion in VAT. Regardless of the multiple obstacles experienced in the industry, this constitutes 17.25 per cent of overall VAT collection, making it the greatest contributor to VAT

income derived. Fairness and equity should be promoted through a healthy tax system. The revamped national tax policy was launched on this basis in order to ensure minimal compliance costs and increase the ease of doing business in Nigeria. Indeed, one of the net review committee's suggestions was that the Nigerian VAT system should function on a cash basis rather than an accrual basis to avoid the issues that come with it.

Other nations, such as the United Kingdom and South Africa, have no restrictions on the amount of input VAT that can be claimed, and their tax refund procedures are straightforward since they use a risk-based audit approach (Olufidipe, 2019). Manufacturers in Nigeria continue to be harmed by the high cost of tax compliance. As a result, the FIRS should encourage taxpayers. In the light of the foregoing, one can infer the importance of the manufacturing sector, as it serves as the prime mover or main engine of economic growth and development. Nigeria's manufacturing landscape is indeed very broad and it is a country that is blessed with both natural and human resources. However, not all sectors have reached a sufficient level of scale to have a significant effect on national economic activity. Although, Nigeria's Manufacturing sector produced a range of goods such as milled grains, vegetable oil, meat products, dairy products, sugar refined, soft drinks, beer, cigarettes, textiles, footwear, wood, paper products, soap, paint, pharmaceutical goods, ceramics, chemical products, tyres, tubes, plastics, cement, glass, bricks, tiles, metal goods, agricultural machinery, household electrical appliances, radios, motor vehicles, and jewellery and consumer goods such as soft drinks, cement, paints, soap and detergents, and so on (Olufidipe, 2019).

But over many years, Nigeria's manufacturing sector has failed to undergo the critical structural transformation necessary for it to play a leading role in economic growth and development. The manufacturing sector is obviously not yet robust enough to be tagged glowingly as Nigeria's engine of growth and the technological base for manufacturing is lacking in many sectors. It is untrue that the food, cement, and textile sub-sector are all doing remarkably well, although the cement manufacturing got a significant boost courtesy of Aliko Dangote's heavy investment in the sub-sector recently, and as well the textile industry, in reality, is still gasping, with most of the factories across the country that were once functional yet to be revived from their present moribund state (Ofanson, 2017).

In recent years, Nigeria's manufacturing sector has been operating under very unfavorable environments and contributes little to both the nation's Gross Domestic Product and foreign exchange earnings, and also the share of employment and government revenue generated has been drastically low. Nigeria's limited manufacturing sector is strikingly evident when considering trade flows. Regrettably today, the manufacturing sector contributes just little to export revenue but accounts more for imports which have caused the country to be used as a dumping ground for all sorts of imported goods from the foreign industrial countries and the Asian tigers (Ofanson, 2017). And many firms had closed down due to a lack of patronage of their products both in Nigeria and outside the country.

Literature Review

Concept of Taxation

Taxation is defined as a governmental entity imposing a mandatory financial charge or other forms of levy on a taxpayer in order to fund government spending and various public expenses. Failure to pay on time, as well as avoidance or resistance to taxation, are all punishable under the law. Personal profits such as business income, salaries, commissions, rent earnings, and so on are subject to these levies. The imposition of obligatory taxes on individuals or companies by the government is known as taxation (Bhatia, 2014). Taxes are imposed impractically every country across the globe, largely to raise income for government spending, but they also serve other functions. Taxation is the transfer of funds from private and public sector employees to the government. It is the primary source of money used to fund government spending and also serves as a tool for fiscal policy. It is a sum of money paid to the government, usually as a percentage of personal income or business earnings. Thus, a good tax has some distinguishing characteristics, such as:

- i. It is a payment made by the taxpayer to the government, which is used for the benefit of all citizens.
- ii. It is a mandatory contribution imposed by the government on the residents of a country, thus evading payment is illegal
- iii. It is not imposed in exchange for an equivalent service to the taxpayer.

This means that taxpayers cannot claim or demand from the government something equivalent to the tax paid (*quid pro quo*) (Bhatia, 2014).

Tax in Nigeria today can be classified into two major classes, which include: direct tax and indirect tax. Direct tax is a type of tax that is imposed directly on an individual's earnings. For example, we have a company income tax, pay as you earn (PAYE) tax, capital gains tax, and so on.

Indirect tax is a tax that is imposed on both goods and services. This type of tax is imposed on individuals indirectly through goods and services. It could be specific: in which case a fixed amount is imposed on a commodity per unit or, it could be *ad-valorem* if the tax levied is a certain percentage of the cost of the commodity. Examples of indirect tax include import and export duties, excise duties, and value-added tax (VAT) (Idahosa, 2017).

Proportional, progressive and regressive taxes are all terms that can be used to characterize taxes. A proportional tax is one in which the percentage tax rate remains constant while the tax base grows, resulting in tax payments that are proportional to the tax base. The progressive tax system tries to promote fairness by making the wealthy pay a higher tax rate than the poor. Under a progressive tax system, a person's percentage tax rises as his or her tax base rises; as a result, a person with a higher income pays a larger percentage of tax than someone with a lower income rate. Progressive taxes are based on the class marginal rate of tax and take an incremental portion as the value of the tax base rises. A regressive tax system is one in which the percentage tax rate falls as the tax base grows, implying that the revenue yield falls as the value of the income tax rises. A person with a high income pays less tax than someone with a low income (Idahosa, 2017).

Principles of Taxation

In his book “Wealth of Nations”, Adam Smith, established the most significant set of principles, sometimes known as the “Cannon of Taxation”, which are still widely acknowledged by tax administrators around the world (Aigbokhaevbolo & Ofanson, 2015). He initially propounded only four (4) or as they are popularly known canons of taxation. The following are the basic principles of taxation:

- i. Equity: taxes should be seen to be fair in order to gain the acceptability of the taxpayers. It is important that attention be paid to vertical equity and horizontal equity. Vertical equity involves a system whereby the rich pay higher than the poor whilst horizontal equity is a situation which requires equal treatment to people in similar situations.
- ii. Certainty: it is important that the taxpayer should know the exact amount he/she is expected to pay, the basis of the taxation and the rate of tax applicable and the relevant tax authority to pay it into.
- iii. Convenience: the method and timing of tax payment must be convenient to the tax payers. It must be easy to locate the taxpayers. For example, the pay as you earn income tax on salaries and wages deducted weekly or monthly as the case may be as income is received is a good example of the principle of convenience.
- iv. Economy: the cost of collecting taxes should be relatively lower than the amount of tax collected (Aigbokhaevbolo and Ofanson, 2015).

Tax Incentives to Manufacturing Companies

Various tax incentives that have been put in place to promote manufacturing activities include:

1. Capital allowance: capital expenditure is not an admissible expense in earning profit. But capital expenditure often results in the creation of fixed assets like plants and machinery and building, which are used for the purpose of earning profits. It is only reasonable therefore to give some form of relief for the purposes of taxation with respect to these items of expenditure. Special allowances usually referred to as capital allowances are designed to provide this form of relief. Once qualifying capital expenditure has been incurred in the company's income tax act, 1979 provides reliefs as follows:
 - i. An initial allowance to give immediate relief
 - ii. An annual allowance during the period of ownership and use to give gradual relief
 - iii. A balancing allowance or balancing charge on disposal to bring the total relief given over the years to the net costs of assets full capital allowances are now granted to manufacturing companies on qualifying capital assets. In other words, there are no restrictions on capital allowance claimable. Before, the capital allowance claimable was restricted to 66.67% of the assessable profit for the given year of assessment (Asemota & Eweka, 2018).
2. Investment allowance: this allowance which is given in addition to capital allowance (initial and annual) is available only in the first year of purchase of the asset and is not deductible from the cost of the asset. For the purposes of calculation of capital allowance, investment allowance is given as follows, on the plant and machinery 10%,

on the plant and machinery used in gas utilization activities 15% (Asemota & Eweka, 2018).

3. Rural investment allowances: to encourage the location of industries in the rural areas, the government allows such companies (those located in the rural areas) to claim the following as rural investments allowance under the following circumstances:
 - No electricity, water, tarred roads or telephone 100%
 - No electricity 50%
 - No water 30%
 - No tarred roads 15%
 - No telephone 5%
- i. to benefit, the company must have incurred capital expenditure on the facilities listed above. The facilities must be used for the purpose of the business and the enterprise must be located at least 20km from such provided facilities provided by the government.
- ii. Investment allowance can be claimed on the same asset on which rural investment allowance has been claimed (Asemota & Eweka, 2018).
4. Investment tax reliefs: a company which has incurred expenditure on electricity, water, tarred roads or telephone for the purpose of trade or business carried on by the company at a location which is at least 20km away from the ones provided by the government can enjoy investment tax reliefs in the year in which the capital expenditure was incurred and two subsequent years and no more. That is, the allowance can be claimable for 3 years only (Asemota & Eweka, 2018).
5. Investment tax credits: incentives here are received when qualified assets are acquired for production use. Investment tax credits are a type of federal tax credit that encourages businesses to invest. They allow individuals and organizations to deduct a portion of their investment costs from their taxes (Asemota & Eweka, 2018).

Value-Added Tax in Nigeria

In Nigeria, the concept of VAT started with the acceptance of the recommendation of the study group on indirect taxation in November 1991 (Omankhanlen, Ilori, & Isibor, 2021), set up by the federal government. The federal government was however not satisfied with revenue yield from the sales tax whose base is regarded as norms and which covers only nine categories of good plus sales and services in registered hotels, motels and similar establishments. It is felt that the narrow base of consumption negates the fundamental principles of consumption tax; which by nature is supposed to cut across consumption of goods and services. Value-added tax on the contrary has a broader base and includes most professional services and banking transactions that are high profit-generating sectors, only locally manufactured goods were targeted by the sales tax decree of 1986; although this might not have been the intention of the law. VAT is neutral in this regard. Under VAT a considerable part of the tax to be realized is from imported goods. This means that under VAT, locally manufactured goods will not be

placed at a disadvantage relative to imports. Since VAT, is based on the general consumption behaviour of people. The expected high yield from it will boost the fortunes of the state government with minimum resistance from the taxpayers of the tax (Ofanson, 2017). The decision to accept the recommendation of the study group set up by the federal government on indirect taxation in November 1991 was made public in the budget speech of the head of state. This resulted in setting up the modified value-added tax (MVAT) committee on 1st June 1992 as recommended by the study group. The recommendation of the committee that VAT should be administered by an independent commission rather than the federal inland revenue services, which was the body already charged with the responsibility of administering most other taxes in Nigeria was rejected by the federal government. This led to the introduction of VAT in Nigeria, through decree 102 of 1993 which marks the phasing out of the sales tax decree no 7 of 1986. The decree took effect on 1st December 1993 but by administrative arrangement, invoicing for tax purposes did not commence until 15th January 1994: value-added tax is a consumption tax on economic operations which include imported goods and services. VAT is computed at a flat rate of 7.5% of the price of goods and services and at a zero rate for export (Asemota & Eweka, 2018) (amended VAT rate from 5% to 7.5%).

VAT Amendment Act: 2007

The Nigerian federal government enacted the VAT amendment act in 2007; this act empowered the federal government to fix the rate of value-added taxes to be imposed in Nigeria. The rate was increased by 10%. However, discussion regarding the possibility of a 50% reduction in the rate is on. In Nigeria, value-added taxes are also imposed on the sale of land, as well as check transactions. The number of payments to be made is 12 and the amount of time is 160 hours (Asemota & Eweka, 2018).

Value-added taxes are one of the major sources of financing in a number of economically developing countries across the world. The situation is similar in Nigeria as well. In 1994, the revenue earned from value-added taxes in Nigeria exceeded the projections. They contributed 4% of the total revenue raised by the federal government in that year. In 1995 the rate of contribution was 5.39%. However, there have been teething issues as far as value-added taxes in Nigeria are concerned (Asemota & Eweka, 2018).

VAT Policies

VAT is a fair consumption tax levied at a flat rate of 7.5% on goods and services. The introduction of VAT was to replace the former sales tax adjusted to be progressive and has the advantage of broadening the tax revenue base equitably shared among imported and domestically produced goods and services (Asemota & Eweka, 2018). As consumption tax VAT is easy to administer, the difficult to evade, it also gives a fairly accurate measurement of the growth of the economy since purchasing power increases with economic growth. So, VAT as an instrument of development requires a lot of instruments in order to reap the stream of benefits.

According to Olufidipe (2019), a turnover tax was changed at every transaction made; many people regarded value-added tax as merely a misguided form of sales tax on consumption

from the other sales taxes. Naiyegu, chairman of Federal Inland Revenue Services, said that when talking about the effects of VAT on the consumption behaviour of people, it makes the consumer rational. Also, Olufidiye (2019) opined that with the introduction of VAT, the economic problems of the marginalized masses would further be compounded under the present state of runaway inflation.

Implementation of VAT in Nigeria

The key facts that will help us to understand the implementation of VAT in Nigeria according to Isibor, Babajide, Akinjare, Oladeji, and Osuma (2018) included:

1. VAT is a tax on spending. The tax is borne by the final consumer of goods and services because it is included in the price paid, although the VAT elements are to be separately indicated.
2. The tax is presently at a flat rate of 7.5%
3. The tax is collected on behalf of the government by businesses and organizations which have registered with the FIRS local VAT offices for VAT purposes.
4. All businesses and organizations are to register for VAT in the local VAT office nearest to their offices or operating bases. Branches of such businesses and organizations are to register independently in their own area of operation. A business or organization which has registered for VAT is classified as a “registered person”
5. A registered person will pay 7.5% on goods and services purchased but claim credit for this tax (input tax) when sold 7.5% VAT (output tax) is included in the price of all goods and services supplied by the registered persons.
6. The registered person has to make regular VAT returns and either pay to or recruit from FIRS (VAT doctrate) the difference between the input tax and output tax. To claim credit for input tax and output tax, a registered person must hold a “tax invoice”.
7. VAT returns and payments are normally made monthly to the local VAT office on or before the 30th day of the month following that in which the supply was made.
8. Records and accounts have to be kept on all business transactions.
9. No individual, business organization or government agency is exempted from the tax only goods and services and especially specified activities are exempted (Isibor, Ojo, & Ikpefan, 2018).
10. FIRS (VAT doctrate) provide a piece of free information and advisory service to help you with VAT.

This guide above is based on the provisions of the value-added tax decree, 1993 as amended.

Manufacturing Sector

Manufacturing is any enterprise that uses manual labour or machines to create things from raw materials, and it is generally done in a methodical manner with a division of labour. (For further information, see industry.) Manufacturing, in a broader sense, refers to the large-scale manufacture or assembling of components into completed goods. Aircraft, vehicles, chemicals, clothes, computers, consumer electronics, electrical equipment, furniture, heavy machinery, and refined petroleum are among the most important industrial businesses. Ships, steel, tools and iron are all examples of products.

A number of articles deal with manufacturing. Automotive industry; aerospace industry; ship construction; clothing and footwear industry; floor coverings; furniture industry; chemical industry; soap and detergent; dye; pharmaceutical industry; explosive; elastic; plastic; man-made fibre; surface coating; adhesive; papermaking; building construction; electronics; food preservation; industrial ceramics; industrial glass; key industrial polymers; mineral deposits; textiles; printing See automation; production system; industrial relations for information on manufacturing methods, procedures, and organization. Energy conversion deals with how energy is used in production. See also analysis; drafting for further information on the use of measurement and control in industrial processes.

Manufacturing is the process of creating or producing items using machinery, labour, tools, and chemical or biological processing or formulation. It is the essence of the economy's secondary sector. The phrase may be applied to a wide variety of human activities, from handcraft to high-tech, but it is most usually associated with industrial design, which involves the large-scale transformation of raw materials from the primary sector into completed commodities. Such goods may be sold to other manufacturers for use in the production of more complex products (such as aircraft, household appliances, furniture, sports equipment, or automobiles), or they may be distributed to end-users and consumers through the tertiary industry (typically through wholesalers, who then sell to retailers, who then sell to individual consumers).

Theoretical Framework

The Laffer Curve

The Laffer curve theory was propounded by professor Arthur Laffer. The Laffer curve theoretical represents the relationship which exists between the tax rates and the revenue raised by the government through taxation (Aigbokhaevbolo & Ofanson, 2015) the Laffer curve is a theoretical construct of the supply side of economics which is often used as an aggregate of the pro-growth world view of supply-side economics. The curve demonstrates that there are two effects of changes in the rates of taxes, which are the arithmetic effect and the economic effect (Aigbokhaevbolo & Ofanson, 2015). The arithmetic effect occurs when there is a reduction in tax revenue (per unit of currency) as a result of the lowering of tax rates and vice versa. The economic effect on the other hand acknowledges the irrefutable contribution lower tax rates make to output, work and employment and consequently the tax base, through the provision of incentives to jolt their activities. In the same vein, a rise in the rate of tax results in an opposite economic effect which is the discouragement of participation in such activities which were initially taxed. The arithmetic effects and the economic effect always work in opposite directions. There is therefore no obvious consequence of a change in tax rates when there is a combination of the economic and arithmetic effects of tax rate changes (Aigbokhaevbolo & Ofanson, 2015).

Empirical Review

Loto (2016) revealed that the profitability of manufacturing industries in Nigeria overall is improved under the VAT system as compared to sales tax. Manufacturers are able to claim back the input tax from the government under the VAT regime and they are paying more under

the sales tax regime prior to the introduction of VAT. Basically, other industries like pharmaceutical, infrastructure and capital goods industries are also beneficial under the VAT system. This implies that manufacturing firms and other firms are paying lesser taxes to the government and shrinking the tax burden under the VAT environment. Muritala and Taiwo (2017) suggested that the majority of micro simulation models are narrowed to ex-ante assessments of reforms in the personal income tax system or in social security contributions and benefits. Their paper reports on the incorporation of indirect taxes, mainly VAT, excises and other consumption taxes, in the EUROMOD-micro simulation model. They sharpen the distributional image of the overall tax and benefit system by conveying the indirect tax incidence for five European countries into the image. They investigate explanations for the progressivity and study the distributional effect of an integrated simulation of changes in social security contributions and indirect taxes as compensating channels of collecting government revenue. Their results revealed a rise in social security contributions, followed by a rise in the standard VAT rate to keep the neutrality of the government budget. The results also showed that the weaker groups in society are adversely affected by this measure, while richer households benefit from it. This was true even while keeping savings constant.

Olufidipe (2019) found that all the income taxes have positive coefficients showing that tax reform can stimulate economic growth. Aregbeyen (2016) used secondary data that were generated from the Federal Inland Revenue Services with the aid of a table and simple percentage, while the hypothesis formulated were tested using product-moment correlation coefficient and students in the test. The findings revealed that revenue generated through VAT has a significant influence on wealth creation in Nigeria and also that revenue generated through VAT has a significant effect on total tax revenue in Nigeria. Therefore, from their findings, they discovered that value-added tax (VAT) is the bedrock of wealth creation in Nigeria as well as economic development as it contributes significantly to the nation's gross domestic products (GDP). Therefore, the government must give adequate attention to taxation in general and VAT in particular, under a stable and conducive socio-political and economic atmosphere.

Methodology

The study's population includes manufacturing industries in Nigeria and they are Guinness Nigeria plc, Cadbury Nigeria plc, Dangote cement Nigeria plc, Vitafoam Nigeria plc, Honeywell flourmills plc, Nestle Nigeria plc, Unilever Nigeria plc, Champion breweries plc, Dangote sugar refinery plc, and PZ Cussons Nigeria plc. The study used primary data through the use of questionnaire.

A total of 100 questionnaires were distributed based on the sample size determination in the previous chapter, 10 for each staff of the selected manufacturing firms, out of which 98 were returned out of the questionnaires distributed. The data obtained from the responders were tested using the formulated study hypotheses with the Analysis of Variance (ANOVA) regression.

Reliability Test

The study used the Cronbach's Alpha to examine the reliability of all the elements of turnover rate and bank staff job security. The Cronbach's Alpha showed if the questions in the questionnaire were interrelated so as to know the reliability and credibility of the questionnaire. Gujarati (2010) stated that the value must be from 0.7 and above to show that the research instrument is highly reliability. From table 1, the study's research instrument was reliable and better as the Cronbach's alpha was 0.713, higher than the 0.7.

Table 1: Reliability Test Result

Cronbach's Alpha	N of Items
.713	18

Data Presentation

Table 2: Number of responders

Questionnaire	Responders	Valid percentage
Returned	98	98
Not returned	2	2
Total	100	100

Source: Field Survey 2023

Table 3: Gender of the responders

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	53	54.1	54.1	54.1
Valid Female	45	45.9	45.9	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

Table 3 indicated that out of the 98 responders, 53 were males amounting to 54.1% of the total responders. Also 45 were females amounting to 45.9% of the total population. This showed that more male filled the questionnaire.

Table 4: Age Group of the responders

	Frequency	Percent	Valid Percent	Cumulative Percent
18 - 25 years	15	15.3	15.3	15.3
26-35 years	28	28.8	28.8	44.1
Valid 36-45 years	40	40.8	40.8	84.9
46-55 years	10	10.0	10.0	94.9
56 and above	5	5.1	5.1	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

Table 4 revealed that out of the 98 responders 15.3% were between 18 – 25 years, 28.8% were between 26-35 years, 40.8% were between 36-45 years, 10% were between 46 – 55 years, while 5.1% were between 56 and above. This shows that there were many responders between 36-45 years of age.

Table 5: Educational Qualification of the responders

	Frequency	Percent	Valid Percent	Cumulative Percent
OND/A-level	1	1.0	1.0	1.0
BSc/HND	49	50.0	50.0	51.0
MBA/MSC	45	45.9	45.9	96.9
Mphil/PhD	3	3.1	3.1	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

Table 5 depicted that 1(1.0%) of the responders had OND/A-level, 49(50.0%) of the responders had BSc/HND, 45(45.9%) of the responders had MBA/MSC, while 3(3.1%) had other qualifications. The table indicated that majority of the responders were B.SC/HND holders.

Table 6: Work Experience of the responders

	Frequency	Percent	Valid Percent	Cumulative Percent
1-5yrs	25	25.5	25.5	25.5
6-10yrs	14	14.3	14.3	39.8
11-15yrs	28	28.6	28.6	68.4
16-20yrs	21	21.6	21.6	90.0
21 Above	10	10.0	10.0	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

Table 6 showed that 25(25.5 %) of responders had 1-5 years of working experience, 14(14.3 %) had 6-10 years of working experience, 28(28.6 %) had 11-15 years of working experience, 21(21.6 %) of responders had 16-20 years of working experience while 10(10%) of the responders had 21 years and above experiences. This showed that most responders had 11-15 years of working experience.

Table 7: I have heard the term "value-added tax" before

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	93	94.9	94.9	94.9
Valid Agree	5	5.1	5.1	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

94.9% of responders strongly agreed from the table 7 that they have heard the term "value-added tax" before. 5.1% agreed. The majority of the responders strongly agreed that they have heard the term "value-added tax" before. This means they are aware of value added tax. It is a good thing for the manufacturing industry that most responders strongly agreed that they have heard the term "value-added tax" before as this would boost tax management performance.

Table 8: I have an understanding of value-added tax

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	22	22.4	22.4	22.4
Valid Agree	75	74.6	74.6	74.6
Undecided	1	3.0	3.0	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

From the table 8, 74.6% of responders agreed that they had understanding of value-added tax, 22.4% of responders strongly agreed while 3% were neutral. The majority of responders agreed that they had understanding of value-added tax.

Table 9: I am aware of the rate at which value-added tax is being charged in Nigeria

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	38	38.8	38.8	38.8
Valid Agree	58	59.2	59.2	98.0
Disagree	1	1.0	1.0	99.0
Strongly Disagreed	1	1.0	1.0	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

From table 9, 38.8% of the responders strongly agreed that they were aware of the rate at which value-added tax is being charged in Nigeria. 59.2% of the responders agreed, 1.0% of

the responders disagreed, while another 1% strongly disagreed. From this information, majority of the responders only agreed that they were aware of the rate at which value-added tax is being charged in Nigeria.

Table 10: My organization pays the VAT on an annual basis

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	13	13.3	13.3	13.3
Agree	84	85.7	85.7	99.0
Disagree	1	1.0	1.0	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

Table 10 depicted that 85.7% of the responders agreed that their organization pays the VAT on an annual basis. 13.3% of the responders strongly agreed, while 1.0% disagreed. Hence, of the responder agreed that their organization pays the VAT on an annual basis.

Table 11: VAT increases the price of your company's product

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	20	22.4	22.4	22.4
Agree	73	73.5	73.5	95.9
Undecided	2	2.0	2.0	97.0
Disagree	3	3.0	3.0	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

From the analysis in table 11, it could be deduced that 73.5% agreed that VAT increases the price of their company's product. 22.4% of the responders strongly agreed, 2.0% were undecided, while 3.0% disagreed. It can be concluded that majority agreed that VAT increases the price of their company's product.

Table 12: The company will generate more revenue without having to pay VAT

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	21	21.4	21.4	21.4
Agree	74	75.5	75.5	96.9
Undecided	2	2.1	2.1	99.0
Disagree	1	1.0	1.0	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

From the table 12, 75.5% of the responder agreed that their company would generate more revenue without having to pay VAT, 21.4% of the responders strongly agreed, 2.1% of the responders were undecided while 1% disagreed. It can be observed that majority of the responder just agreed that their company would generate more revenue without having to pay VAT.

Table 13: VAT leads to an increase in your company's operational cost

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	66	67.3	67.3	67.3
Agree	16	16.3	16.3	83.7
Undecided	10	10.2	10.2	93.9
strongly disagree	4	4.1	4.1	98.0
Disagree	2	2.0	2.0	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

The table 13 indicated that 67.3% of the responder strongly agreed that VAT leads to an increase in their company's operational cost, 16.3% of the responder agreed, 10.2% of the responder were undecided, 4.1% of the responder strongly disagreed and while 2.0% of the responder disagreed. Most of the responder strongly agreed that VAT leads to an increase in their company's operational cost.

Table 14: VAT enhances your company's output

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	19	19.4	19.4	19.4
Disagree	71	72.6	72.6	92.0
Undecided	4	4.0	4.0	96.0
Agree	4	4.0	4.0	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

From the table 14, 19.4% of the responder strongly disagreed that VAT enhances their company's output and 72.6% of the responder disagreed. 4% were both undecided and agreed. This showed that majority of the responder disagreed that VAT enhances their company's output.

Table 15: Inflation increases the VAT levy charged to Nigerian manufacturing company

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	70	71.4	71.4	71.4
Strongly Agree	22	22.4	22.4	93.9
Valid Undecided	3	3.1	3.1	96.9
Disagree	3	3.1	3.1	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

From the table 15, 71.4% of the responder agreed that inflation increases the VAT levy charged to Nigerian manufacturing company, 22.4% of the responder strongly agreed, 3.1% of the responder were undecided and 3.1% of the responder disagreed. Majority of the responder agreed that inflation increases the VAT levy charged to Nigerian manufacturing company.

Table 16: Inflation increases the cost of manufacturing materials for your company

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	85	86.7	86.7	86.7
Agree	11	11.3	11.3	98.0
Valid Disagree	1	1.0	1.0	99.0
Strongly Disagree	1	1.0	1.0	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

From table 16, 86.7% of the responder strongly agreed that inflation increases the cost of manufacturing materials for their company. 11.3% agreed, 1.0% of the responders both strongly disagreed and also disagreed. This showed that most responders strongly agreed that inflation increases the cost of manufacturing materials for their company.

Table 17: Inflation reduces your company's output

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	25	25.5	25.5	25.5
Agree	70	72.5	72.5	97.0
Valid Undecided	1	1.0	1.0	98.0
Disagree	2	2.0	2.0	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

Table 17 revealed that 25.5% of the responder strongly agreed that inflation reduces their company's output, 72.5% of the responder agreed, 1.0% of the responder were undecided while 2.0% of the responders disagreed. Most of the responders agreed that inflation reduces their company's output.

Table 18: Exchange rate hinders the productivity of your company

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	78	79.6	79.6	79.6
Strongly agree	18	18.4	18.4	98.0
Valid Undecided	1	1.0	1.0	99.0
strongly disagree	1	1.0	1.0	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

Table 18 indicated that 79.6% of the responders agreed that exchange rate hinders the productivity of their company. 18.4% of the responders strongly agreed, 1.0% of them were undecided, while 1.0% of the responders strongly disagreed. This depict that most of the responders agreed that exchange rate hinders the productivity of their company.

Table 19: Exchange rate has a positive effect on your company's output

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	71	72.4	72.4	72.4
Valid Strongly disagree	25	25.5	25.5	98.0
Undecided	2	2.0	2.0	100.0
Total	98	100.0	100.0	

Source: Field survey, 2023

The table implied that 72.4% of the responders disagreed to the fact that exchange rate had a positive effect on their company's output, 25.5% of the responders strongly disagreed and while 2.0% of the responders were undecided. This means that most of the responders disagreed that exchange rate had a positive effect on their company's output.

Hypothesis Testing Using Analysis of Variance (ANOVA) Regression

Hypotheses One

H_0 : Value-added tax (VAT) does not have an effect on a manufacturing company's output

To test the first hypothesis, the Analysis of Variance (ANOVA) regression was used to examine the significant relationship between the dependent variable (manufacturing company's output) and the independent variables (value-added tax). Table 20 indicated the model

summary of the linear regression equation. The “R column” represents the correlation between the observed independent variable and the predicted independent variable. The R-squared is the square of residuals and is also known as the coefficient of determination. It states the proportion of the variation in the dependent variable that can be attributed to the independent variable(s). From the findings, 54% of the variations in manufacturing company's output could be accounted for by value added tax, the remaining 46% was caused by others factors. This showed the importance of value added tax in explaining output. The adjusted R-squared refers to the best estimate of R square for the population from which the sample was drawn after adjusting for degree of freedom. From the result in table 4.20, the adjusted R-square was 48%. Finally, the “standard error of estimate” indicated that, on average, observed dependent variable deviated from the predicted regression line by a score of 0.14861.

The F-statistics in table 21 was used to examine the effect of the entire model and also to check the joint significance of the independent variable on the dependent variable. Its value of 25.165 showed that the independent variable jointly and significantly impacts the dependent variable. This was confirmed by the significance value of 0.042 which was significant at 10 per cent level of significance.

Examining the significance figure in table 22, it was discovered that both the constant and value added tax were significant at 5 per cent level of significance with significance values of 0.017 and 0.000 respectively to prove that the independent variable (value added tax) have a significant impact on the dependent variable (manufacturing company's output). Also the unstandardized and standardized coefficients values of value-added tax (-0.428 and -0.519) carry a negative sign to show that the significance was a negative one. Therefore, the null hypothesis was rejected and it was accepted that value-added tax (VAT) does have a negative and significant impact on a manufacturing company's output.

Table 20: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.769 ^a	.538	.499	0.14861

a. Predictors: (Constant), Value-added tax

Table 21: Regression Analysis based on Analysis of Variance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16.987	1	38.989	25.165	.042 ^b
	Residual	100.693	98	1.379		
	Total	117.680	99			

a. Dependent Variable: Manufacturing company's output

b. Predictors: (Constant), Value-added tax

Table 22: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.883	.649		3.035	.017
	Value-added tax	-.428	-.512	-.519	5.209	.000

a. Dependent Variable: Manufacturing company's output

Source: Author's Computation using SPSS, 2023

Hypothesis Two

H₀: Exchange rate does not have an effect on manufacturing company's output

The R-squared explained the proportion of the variation dependent variable that can be attached to the independent variable and was 59% from table 23 below, showing that 59% variation in performance of the manufacturing company's output could be accounted for by exchange rate. The adjusted R-squared, after adjusting for the degree of freedom, was 51%. The standard error of estimate indicated that the observed model digressed from the predicted regression line by a score of 0.31986. The F-statistics was used to examine the joint significance of the independent variable and was 12.141 from table 24, thus showing that the independent variable jointly impacted the dependent variable. From the significance figure in table 25, both the constant and exchange rate were significant at 5 per cent level of significance with significance values of 0.000 and 0.000 respectively to prove that the independent variable (exchange rate) had a significant impact on the dependent variable (manufacturing company's output). Also the unstandardized and standardized coefficients values of profitability (-0.991 and -0.857) both carried a negative sign to show that the significance was a negative one. Therefore, for hypothesis two, the null hypothesis was also rejected and it was accepted that exchange rate had a negative and significant impact on manufacturing company's output.

Table 23: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.552 ^a	.585	.506	.31986

a. Predictors: (Constant), Exchange rate

Table 24: Regression Analysis using ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	55.878	1	53.819	12.141	.009 ^b
	Residual	54.709	98	.407		
	Total	110.587	99			

a. Dependent Variable: manufacturing company's output

b. Predictors: (Constant), Exchange rate

Table 25: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	7.663	.924		8.529	.000
Exchange rate	-0.991	.044	-0.857	9.007	.000

a. Dependent Variable: manufacturing company's output

Source: Author's Computation using SPSS, 2023

Hypothesis Three

H₀: Inflation does not have an impact on a manufacturing company's output
 The R-squared was 56% from table 26, meaning that 56% of the variations in the dependent variable were caused by the independent variable. The adjusted R-squared, after adjusting for degree of freedom, was 51%. Finally, the standard error of estimate showed that the observed model deviated from the predicted regression line by a score of 4.72506. The F-statistics that showed the joint significance of the independent variable was 4.413 from table 4.27 proving that the independent variable jointly have an effect on the dependent variable. From the significance figure in table 4.28, both the constant and inflation were significant at 10 per cent level of significance with values of 0.000 and 0.041 respectively to prove that the independent variable have a significant impact on the dependent variable. Also the unstandardized and standardized coefficients values of profitability (-0.053 and -0.242) carry a negative sign to show that the significance was a negative one. Therefore, for hypothesis three, the null hypothesis is rejected and it is accepted that inflation have a negative impact on manufacturing company's output.

Table 26: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.342 ^a	.558	.506	4.72506

a. Predictors: (Constant), Inflation

Table 27: ANOVA Regression

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7.200	1	7.202	4.413	.044 ^b
	Residual	15.468	98	1.582		
	Total	22.668	99			

a. Dependent Variable: Manufacturing company's output

b. Predictors: (Constant), Inflation

Table 28: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	7.855	.350		20.195	.000
Inflation	-.053	.026	-.242	2.314	.041

a. Dependent Variable: Manufacturing company's output

Source: Author's Computation using SPSS, 2023

Discussion of Findings

Findings from the regression analysis showed that first; there was a negative and significant impact between value-added tax and manufacturing company's output. The significance showed that when companies pay value-added tax to the government, the government uses it to build infrastructures like good road, electricity, and so on and the companies enjoy the infrastructures and use it to boost productivity and increase output. The negative relationship was due to the fact that the value-added tax is added to the price of most of the outputs for the final consumers to bear and this distorts sales indirectly.

Secondly, findings from the ANOVA regression also showed that exchange rate had a negative and significant impact on manufacturing company's output. Hence, exchange rate directly influences the prices of imported raw materials most of the manufacturing companies use as output. It also affects the manufacturing firms involved in international trade businesses. However, the negative sign showed that whenever exchange rate fluctuates or increases in value, it affects the output prices which make final consumers go for alternative cheaper substitute goods, hence the inverse relationship between both variables.

Finally, the ANOVA regression result revealed that inflation had a negative and significant impact on manufacturing company's output. The negative relationship showed that inflation increases the prices of the outputs which also make customers seek for cheap substitute good elsewhere and hampering performance of the manufacturing firms.

Conclusion

From the findings made in the course of this study, the researcher concluded that the importance of VAT and some macroeconomic variables to achieve maximum industrial output is of utmost importance. VAT in a way increases government revenue which in turn is expended on the industrial sector and also capital and recurrent expenditures. The manufacturing companies benefit from the expenditures and use it to boost output. However, VAT has an inverse relationship on output as its value is added to output price and this increase such prices and makes customers look for cheaper substitute goods elsewhere.

Recommendations

1. Captains of industries should attend seminars, conferences, workshops, and trainings on VAT and its benefits as this would boost their knowledge and compliance of VAT payment.
2. Corruption in expending tax funds on infrastructural development should be stopped. The government can do this by establishing an audit committee to audit funds going into infrastructures.
3. Policies to stop exchange rate fluctuations should be made by the monetary authorities. Policies like stopping devaluation of the Naira would reduce fluctuations in exchange rate and improve output performances.
4. The government should make policies to reduce inflation like export promotion. This would boost local promotion at cheaper prices and boost output.

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