

APPRAISAL OF INDIRECT TAX REVENUE AND ECONOMIC DEVELOPMENT IN NIGERIA

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ABSTRACT

This study determined indirect tax revenue and economic development from 1991 – 2020. The specific objectives of the study were to; determine the effect of import tax efficiency (ITE) on poverty index in Nigeria; determine the effect of import tax efficiency (ITE) on per capita income growth in Nigeria; determine the effect of export tax efficiency on poverty index in Nigeria; determine the effect of export tax efficiency on per capita income growth in Nigeria; determine the effect of import tax efficiency on HDI in Nigeria; determine the effect of VAT efficiency on poverty index in Nigeria. Secondary data on the poverty index, and per capita income, imports and exports tax efficiencies were sourced from CBN statistical bulletin and World Bank data base. The collected data were analyzed with the techniques of stationarity test (ADF unit root test) and ordinary least squares (OLS) multiple regression analysis. The empirical results showed that; indirect tax revenue measured by export tax efficiency has negative relationship with poverty index While, import tax efficiency has positive relationship with poverty index in Nigeria. ALSO, import tax efficiency and export tax efficiency were positively related with per capita income in Nigeria during the period of study. More so, indirect tax revenue measured by import and export tax efficiencies jointly impacted on economic development in Nigeria during the period of study. Based on these findings it was concluded that indirect tax revenue has significant effect on economic development. The researcher recommended amongst others that; Government should formulate and implement export policy measures towards exporting goods that are growth and development drivers, particularly, refined goods in the area the nation has comparative advantage in order to make the domestic production viable and compete with the industrialized economy of the world..

Keywords: *Indirect Tax, Economic Development, Poverty Index, Import Tax Efficiency, Export Efficiency*

INTRODUCTION

Indirect tax has the effect to raising the price of the products on which they are imposed. An indirect tax is collected by an intermediary (such as a retail store) from the person (such as the consumer) who pays the tax included in the price of a purchased good. The intermediary later files a tax return and forwards the tax proceeds to government with the return. The sources of indirect taxes include Value Added Tax (VAT), service tax, excise duties, customs duties and tariffs. The revenue from these various sources are used to propel the growth and development of the economy. Thus, economic development measured by indicators such as human development index (life expectancy, educational attainment and decent standard of living); physical quality of life (literacy, life expectancy and infant mortality); and human poverty index (short life expectancy, low literacy rates and overall living conditions) are affected in the course of government managing the economy (UNDP, 2018).

Meanwhile, in Nigeria, developmental programmes cannot be wholly accomplished in the absence of the contribution of revenue accrued from taxes to finance such programmes. Although Nigeria may be described as a mono-economic nation whose major revenue come from the sales of petroleum product, but the addition of indirect tax revenue other than oil revenue would play a critical role to her developmental stride. Thus, "the drop in the prices of crude oil in the global

market, inefficient agricultural sector making Nigeria a mono-product country and the various tax reforms introduced to shore up tax proceeds and the anticipated input to economic growth and development necessitated critical assessment of indirect tax and economic development in Nigeria" (Uket et al., 2020).

Generally in Nigeria, the effect of tax payment is not felt by payee and some do not understand some tax laws and this indeed has put them in doubt and confusion which has definitely led to tax evasion and avoidance. Having realized that indirect tax is one of the most important sources of revenue for the various tiers of government and a major way of sourcing financial support to the Nigeria government at large, it is essential that government tax policy should be well tailored in order to generate huge revenue that will put the economy on the path of development. But despite these enormous revenues from indirect tax revenue in Nigeria, the country has failed to launch into this expected economic development via increase in growth, reduction in poverty level, employment generation, better HDI and prosperity for her citizens. In fact, of recent, between the third quarter of 2016 and fourth quarter of 2017, the country recorded negative growth. Meaning that the economy witnessed recession within the said periods (Obayori & Chioma, 2018). Also, United Nation Human Development Index identified Nigeria as a country with low human development in sub-Saharan Africa. Similarly, 76.5% of the nation population are living on less than US\$ 3.10 per day as at March 2017. The effects of poverty resulted in low GDP and low quality of life. Similarly, as at last quarter of 2017, that GDP per capital in Nigeria stood at \$5,900 (Opaleye et al. 2018).

Moreover, the effect of tax in reducing unemployment, poverty and inflation in Nigeria is not without conflicting result. This is because of the yearly high rate of unemployment, poverty and inflation recorded. For instance, Obayori et al. (2018) opined that over 68% of Nigeria's 200 million population still live in extreme poverty. National poverty rates for the surveys conducted were 28.1 percent in 1980, 46.3% in 1985, 67.2% in 2017 and over 70% in the second quarter of the year 2018. It can be seen that poverty gap has widen. The scourge of poverty has different dimensions and may include inadequate infrastructure, ignorance, social and political exclusion, inadequate access to government utilities and service which generally leads to poor health (World Bank, 2016; Edoumiekumo et al., 2014). In the same vein, CBN (2018) reported that unemployment rate rose from less than 10% in the early 1980s to 22.6% in 2018. This means that, revenues from indirect tax has not translated into economic development.

Given the background above, the aim of the study is to determine indirect tax revenue and economic development in Nigeria. The major reason for this study is that there is dearth of empirical literature on the subject matter in Nigeria. That is, previous studies on the subject matter in Nigeria paid more attention on tax revenues and economic development rather than focusing on the efficiency and economic development.

Aim and Objectives of the Study

The aim of the study is to examine indirect tax revenue and economic development in Nigeria.

1. determine the effect of import tax efficiency on poverty index in Nigeria
2. determine the effect of import tax efficiency on per capita income growth in Nigeria
3. determine the effect of exports efficiency on poverty index in Nigeria;
4. determine the effect of exports efficiency on per capita income growth in Nigeria

Research Questions

Based on the above objectives, the study is guided by the following questions;

1. What is the effect of import tax efficiency on poverty index in Nigeria?
2. What is the effect of import tax efficiency on per capita income growth in Nigeria?
3. What is the effect of export tax efficiency on poverty index in Nigeria?
4. What is the effect of export tax efficiency on per capita income growth in Nigeria?

Research Hypotheses

The study is guided by the following null hypotheses;

- Ho1:** Import tax efficiency does not have significant effect on poverty index in Nigeria
- Ho2:** Import tax efficiency does not have significant effect on per capital income growth in Nigeria
- Ho3:** Export tax efficiency does not have significant effect on poverty index in Nigeria
- Ho4:** Export tax efficiency does not have significant effect on per capital income growth in Nigeria.

REVIEW OF RELATED LITERATURE

Conceptual Review

Concept of Indirect Tax Revenue

Anyanwu (1993) stated that, tax is more or less compulsory, non-returnable contribution of money used occasionally for goods and services and flows from private individuals, institutions or groups to the government. It may be levied upon wealth or income of a person or body corporate or in form of surcharge on prices. Similarly, Okpe (1998) averred that tax is regarded as a compulsory charge imposed by the public authority (Federal, State and Local Government) for the general purposes of Government. It is also defined as the act of laying a tax or imposing taxes on the subjects of a state by government or on the members of a corporation or company by the proper Authority. It is a levy regularly imposed and regarded as contribution to the general pool from which government expenditure are made.

Gyani (1990) went on to say that tax is a compulsory contribution imposed by the government on citizens in accordance with legislative provisions and paid by them through agents to defray the cost of administration. Also, Famoyin (1990), justified tax as a compulsory contribution imposed upon persons for the general purpose of the government. Once levied, every taxable person must pay tax. He also added that taxes are benefits, but for providing the government with funds necessary for the general administration of the country.

Taxation in summary is the transfer of income or resources from the private sector to the public sector in order to enable the public sector to carry out some, if not all of the Nation's economic and social goals. The goals may be in the form of provision of Government basic services regularly and particularly in the educational, public health, transportation sectors, amenities and capital formation. Taxes may be levied upon wealth or income or in the form of surcharge on prices.

According to Khadan (2020), tax revenue measures how tax revenue changes with the level of gross domestic product (GDP). A tax revenue estimate of 1 indicates that; a one percentage point increase in GDP would leave the tax-to-GDP ratio unchanged, but a tax revenue estimate exceeding 1 would increase tax revenues by more than GDP. This could potentially lower fiscal deficits and help put public finances on a sustainable path over the long run (Deli et al 2018). Tax buoyancies can differ by tax type and duration: short-run buoyancies give insights into the stabilization function of fiscal policy, while long-run buoyancies are more important for long-term fiscal sustainability considerations.

Meanwhile, indirect tax is a tax levied on persons or groups who are not intended to bear the burden or incidence but who will shift them to other people. They are normally levied on commodities or services which incidence does not fall directly on the producer or first payer but on the final payers and consumers. One of the characteristics of an indirect tax is that it is very carefully related to economic conditions. Indirect tax is generally prone to economic transactions, such as the sale of goods or the provision of labour services. Once the nature of these transactions' changes, indirect taxes will quickly be greatly affected. The following are some of the indirect taxes; Customs duty and excise duty, purchase or sales tax, consumption tax, tariff, value-added tax (VAT) and export tax.

Dimension of Indirect Tax Revenue

Export Taxes:

These are taxes imposed on goods exported to other countries and are easy to collect as payment is done locally with local currency and is a source of income to the government. This tax may be in the form of discouraging exportation of certain goods.

Import Tax:

This is a tax levied on imported goods for obvious reasons such as tariff to discourage importation and the duty is collected from the importer at the point the goods enter the country. It is a source of government revenue particularly in Less Developed Countries (LDCs).

Concept of Economic Development

Economic development is thus a multivariate concept; hence there is no single satisfactory definition of it. Economic development is a process where low income national economies are transformed into modern industrial economies. It involves qualitative and quantitative improvements in a country's economy. Political and social transformations are also included in the concept of economic development in addition to economic changes.

According to Haller (2012), economic development is a process that generates economic and social, quantitative and, particularly, qualitative changes, which causes the national economy to cumulatively and durably increase its real national product. Economic development requires collective action and large-scale, long-horizon investment. Similarly, economic development addresses the fundamental conditions necessary for the micro economic functioning of the economy. It is within the purview of government. Though it is certainly possible to have growth without development in the short or even medium-term, economic development creates the conditions that enable long-run economic growth. Jobs are a main concern of policy: for growth what matters is the number of jobs while for economic development the focus is wages, career advancement opportunities, and working conditions (Feldman & Francis, 2003).

Measurement of Economic Development

Human Poverty Index:

The United Nations Development has created a measurement system based on what is lacking in different areas of the world. This measurement is called the Human Poverty Index. Human Poverty Index was first launched in 1990 and it is used by the United

Nations to signify the standard of living in a specific country. It measures the amount of deprivation people experience in different countries. Thus, factors such as short life expectancy, low literacy rates and overall living conditions are recorded in the human poverty index. A recent innovation has been the publication of a new poverty index (HPI-2) measures poverty in industrial countries.

Concept of Per Capita Income

Per capita income is national income divided by population size. Per capita income is often used to measure a sector's average income and compare the wealth of different populations. Per capita income is often used to measure a country's standard of living. It is usually expressed in terms of a commonly used international currency such as the euro or United States dollar, and is useful because it is widely known, is easily calculable from readily available gross domestic product (GDP) and population estimates, and produces a useful statistic for comparison of wealth between sovereign territories (World Bank, 2016). This helps to ascertain a country's development status. Critics claim that per capita income has several weaknesses in measuring prosperity: International comparisons can be distorted by cost of living differences not reflected in exchange rates. Also, per capita income does not consider whether income is invested in factors likely to improve the area's development, such as health, education, or infrastructure

Theoretical Review

Ability to Pay Theory of Tax

The idea of progressive tax income- that is, that people with the ability to pay more should pay a higher percentage of their income was developed by Adam Smith in the year 1776. Simply put, taxes are paid to the government base on the ability of the citizens. It is the most popular and mostly accepted principle of equitable taxation. People that receives higher income are to pay higher taxes than those who receive lower income under this principle. For example, the capacity to pay tax of individual A is higher than that of individual B, individual A should pay a higher tax than individual B. justice can be attained if taxes are levied on this principle, though it doesn't solve our problem. Practicing this theory actually starts a problem. First problem is the meaning of ability to pay. Secondly" Accountants do not have a consensus on how to quantify an individual's ability to pay tax. This can be observed from the following;

(a) Ownership of property:

Some Accountants argued that ownership of property is a good basis to measure one's ability to pay tax. The concept was not accepted on the basis that if an individual earns more and doesn't spend on acquiring properties, he would avoid paying tax or paying more tax. Whereas an individual who acquires more properties pays more tax. It becomes unjustifiable when an individual who earns more pays lesser tax because he doesn't acquire properties and the other pays more tax because he acquires properties.

(b) Tax on the basis of expenditure:

The ability to pay tax according to some economists, should be based on the expenditure incurred by an individual i.e. an -individual that incurs a greater expenditure should pay higher taxes and the one with 'lesser expenditure, lesser tax. This opinion is quite unreliable and not fair in all ramification. If we consider expenditure as a yardstick for the ability to pay tax, an individual with a large family and many people depending on him will pay a higher tax than an individual with a smaller family. This creates a greater burden on the former. Hence, it becomes unjustifiable.

(c) Income as the basis:

From accounting view, income should be the yardstick to measure an individual's ability to ability to pay tax. This principle is considered fair and just since an individual with a higher level of income pays a greater tax to the government than an individual with lesser income. Hence, countries in their modem tax system, considers income as the basis of individual's ability to pay tax. Thus, the study is anchored on ability to pay theory of tax. Reasons, for taxation to strive there must be income, derived either from ownership of properties, salaries, etc. In other hand, there must be expenditures. Which ability to pay theory of tax has clearly dealt with.

Empirical Review:

Tax Revenue and Economic Development

Soro (2020) determined the elasticity and revenue of the Ivorian tax system over the period 1984 to 2016. To do this, it uses the Ordinary Least Squares (OLS) method to estimate the revenue and elasticity. The empirical analysis showed that all the variables were stationary using ADF unit root test. The OLS results showed that short-run tax revenue estimates are statistically greater than one. It was therefore recommended that a viable tax system should be encouraged.

Khadan (2020) determined long-run and short-run tax revenue estimates for a group of 12 Caribbean countries over the period 1991–2017. Using panel regressions of fixed effect analysis, the study found that the long and short-run tax revenue estimates are statistically greater than one.

However, the results vary by tax categories: with respect to indirect taxes, which accounts for almost 65 percent of total tax revenues, the revenue of the long-run coefficient is significantly less than 1 (0.35), while for direct taxes it is significantly greater than 1 (1.33). It also found that long-run tax revenue was lower in the post global financial crisis period. With respect to short-run revenue, corporate taxes and trade taxes are the most buoyant, while property taxes were found to be statistically insignificant.

Tanchev and Todorov (2019) analyzed tax buoyancies and economic growth in Bulgaria from the first quarter of 1999 to the second quarter of 2017. The revenue measures the response of tax revenue to changes in economic growth. The study employed Fully Modified Least Squares (FMOLS) and autoregressive distributed lag model (ARDL). The study aims to show which type of revenues (from direct or from indirect taxes) is more important for Bulgaria's state budget. It is shown that the buoyancies of aggregate tax revenue, personal income tax and social security contributions significantly differ from one another in the long-run. The buoyancies of the value-added tax and the corporate tax are above one in the long run. In the short-run the revenue of the aggregate tax revenues, the corporate tax, the income tax and the social security contributions are different from one. The short-run revenue of VAT exceeds one, hence dynamics of VAT revenues is sustainable. The collectability of the aggregate tax revenue, personal income tax and social security contributions has increased neither in the long run nor in the short run.

Barrack and Olukuru (2016) used error correction model to estimate in a comparative study the revenue of income tax, value-added tax, import tax, excise tax and total tax revenue in using annual data from 1972 to 2014 for Kenya and South Africa. The results suggested that the tax systems for both countries are dynamic in the long and short term with an average speed of adjustment between the long term and short-term estimates. Also, Keho (2013) determined the revenue of the UEMOA countries by calculating the revenue of individual taxes in each of the member countries of this economic space over the period 1996-2008. The results showed that the overall tax system is not dynamic in Côte d'Ivoire. And, the poor performance of indirect taxes negatively affects the overall performance of the tax system. On the other hand, the small fluctuations in trade and indirect taxes are attributable to the low tax elasticities at the base, which indicates that, despite the increase in imports and GDP, import taxes are not collected accordingly.

Omondi et al (2014) determined the effects of tax reforms on revenue and elasticity of the tax System in Kenya from 1963–2010. The ECM result showed that, there is evidence of a long-run positive relationship between the revenue of aggregate revenue and economic growth in Kenya. Another study by Timsina (2010) used error correction model to study tax elasticity and revenue in the economy of Nepal from 1975-2005. He demonstrated that, there is a long-run buoyancies of aggregate tax revenues, VAT, personal income tax and import taxes.

Tax Revenue and Economic Development

Uket et al. (2020) determined the impact of tax revenue on economic development in Nigeria for the period 1994 to 2018. The study applied Ordinary Least Square and revealed the existence of significant effect of taxes from companies' profits and Value Added Tax on Gross Domestic Product Growth. But there is no significant impact of taxes on profits of Petroleum companies on Gross Domestic Product growth in Nigeria due to restriction by Organization of Petroleum Exporting Countries production ceiling on Nigeria's production/sales and the global price shocks of crude oil over the decade.

Okeke et al. (2018) determined the connection between tax revenue and economic development measured by labour force, infant mortality and fixed capital formation in Nigeria between the period of 1994 and 2016 reported tax revenue has a statistically important correlation between labour

force, infant mortality and gross fixed capital formation. It was recommended for the government to increase tax revenue allocation to the critical sectors of the economy like agriculture and industry so as to improve on the wellbeing of the citizenry.

Manukaji (2018) determined the effect of tax structure on economic growth in Nigeria from 1994 to 2016. The result of the OLS company income tax revenue as well as other two components of tax has significant effect on economic growth in Nigeria. The study contends that tax administrative loopholes should be plugged for tax revenue to contribute immensely to the development of the economy. Also, Moses et al (2018) determined the tax revenue and economic development in Nigeria with the use of OLS and ECM approaches. The finding showed that tax revenue has significant relationship with infant mortality rate, labour force and gross fixed capital formation at five percent level.

Okwara and Amori, (2017) used regression analysis to determine the effect of revenue from taxation on growth of Nigerian economic from 1994 to 2015. Gross Domestic Product (GDP) was used as a variable representing economic growth while Value Added Tax (VAT) and non-oil income (tax) was used to measure tax revenue. The result showed non-oil income having substantial effect on gross domestic product but value added tax having adverse association and statistically insignificant for the review period.

Ogundana et al. (2017) used OLS to determine the impact of direct and indirect tax on the growth of the Nigerian economy from 1994 to 2013. The results of the ordinary least squares regression shows that indirect tax has a positive and significant impact on economic growth related to direct tax which has a positive but insignificant impact on economic growth of Nigeria. The implications of the finding is that the Nigerian government boosts economic growth through realizing the increase in tax revenues should focus on boosting tax revenue from indirect tax sources while expanding the catchment of those liable to pay direct taxes.

METHODOLOGY

Research Design

Research design is the plan or framework for carrying out a research. This could be qualitative or quantitative frameworks. But for this study, the ex-post facto research design was used in analyzing the various data collected. This is because; the study is quantitative in nature and thus demanded the use of time series variables to determine the relationship between the economic variables under consideration.

Population of the Study

The study is macro in nature, therefore the population of the study comprises of the population of the Nigerian economy. Furthermore, given that the population covers the whole of information on subject matter in Nigeria, the population correspond to time frame is from the period of 1994 to 2019.

Sources of Data Collection

The sources of data for the study were through secondary source, particularly CBN Statistical bulletin, National Bureau of Statistics and World Bank data base. The data contained part A and B. Part A is independent variables, which measured tax revenue, and these include; export tax efficiency, value added tax efficiency (VAT) and export tax efficiency. While, the second part (part B) is the dependent variables which measured economic development, these are; Human Development Index, per capita income and poverty index.

Method of Data Analysis

This study adopted both descriptive and econometrics techniques. While the descriptive statistics described the nature of the variable vis-à-vis average, median and standard deviation, the econometrics method of Ordinary Least Square multiple regression analysis the relationship between two or more variables. These techniques were briefly discussed below

Descriptive Statistics

The descriptive statistics was used to test the reliability of data via mean, median skewness and standard deviation. Thus, if the mean and median are almost same and it means there is no evidence of skewness. Also, positive and low standard deviation connotes data consistency. Moreover, table and graph were used to analysis the trend analysis of the variables under consideration.

DATA PRESENTATION, ANALYSIS, RESULTS AND DISCUSSION OF FINDINGS

Data Presentation

This section presented data on poverty index (PVI), and per capita income (PCI), as the dependent variables to measure economic development. While, import tax efficiency (ITE) and export tax efficiency (XTE) serve as measures of the independent variable.

Data Analysis and Results

Demographic Analysis

This analysis helped to show the trends related to population or observation and as well analyses analyze the nature and characteristic of the variable used for the analysis. The analysis focused mainly on descriptive statistics.

Table 4.1 **Descriptive Statistics of the Variables**

Measurement	PVI	PCI	ITE	XTE
Mean	66.02774	282.5338	5.142521	0.311135
Std. Dev.	5.727116	72.29167	1.958255	0.148991
Skewness	-0.076779	-0.170304	-1.139257	-0.124720
Kurtosis	3.476051	1.394375	3.064090	1.460152
Jarque-Bera	0.281480	3.030799	5.845197	2.737520
Probability	0.868715	0.219720	0.053794	0.254422
Sum	1782.749	7628.413	138.8481	8.400650
Sum Sq. Dev.	852.7962	135878.2	99.70385	0.577156
Observations	26	26	26	26

Note PVI= Poverty index, PCI=Per capita income, HDI= Human development index, VAT=Value added tax efficiency, ITE= Import tax efficiency and XTE=Export tax efficiency.

Source Researcher's Computation from (E- View- Version 12)

The descriptive statistics reported in Table 4.2 indicated that poverty index (PVI) has an approximate mean of 66% with the corresponding standard deviation of 5.5%. Per capita income (PCI) has an approximate mean of ₦283 with the corresponding standard deviation of ₦72. Similarly, Import tax efficiency (ITE), has an approximate mean of ₦5billion with the corresponding standard deviation of ₦2billion. Similarly, exports tax efficiency (XTE), has an approximate mean of ₦0.3111billion with the corresponding standard deviation of ₦0.1489billion. Thus, it can be infer from the analysis that the standard deviation of all the variables except tax policy were not higher than their respective means. Therefore, standard deviation of the variables converged around their respective mean.

Meanwhile, the skewness test showed that while only VAT efficiency is positively skewed. While, the remaining variables (PVI, PCI, ITE and XTE) all have negative slope,

Moreover, based on the analysis of the kurtosis; PCI, and XTE are platykurtic relative to normal, since the approximate values for kurtosis which are; 1.394375, and 1.460152 respectively, were less than 3. This suggested that the variables have short and thin tails, and their central peaks are lower and broader. Meanwhile, PVI, and ITE all have leptokurtic distributions relative to normal,

since the approximate values for kurtosis are more than 3. This indicated a flatter than normal distribution and the variables have large tails. That is, their central peaks are higher and sharper. However, the probability of Jarque-Bera statistics suggested that the null hypotheses of normal distribution for all the variables except tax policy were accepted at 5% level. Therefore, it was concluded from the statistical properties of the time series that, the variables were not normally distributed, may have resulted from the problem of unit root. This necessitated stability via ADF unit root test.

Table 4.2 Stationarity Test at Order Zero and Order One

Variable s	ADF Test Statistic @ Level	Critical Value @ 5% (level)	Order of Integration	ADF Test Statistic @ 1 st Differenc e	Critical Value @ 5% (1 st Diff.)	Order of Integrati on
PVI	-4.0518	-2.9677	Stationary	Order Zero		1(0)
PCI	-1.3506	-2.9677	Not Stationary	-5.9335	-2.9677	1(1)
ITE	-2.2017	-2.9677	Not Stationary	-8.7806	-2.9677	I(1)
XTE	-1.0651	-2.9677	Not Stationary	-4.6132	-2.9677	I(1)

Note PVI= Poverty index, **PCI=**Per capita income, **ITE=** Import tax efficiency, **XTE=**Export tax efficiency.

Source Researcher's Computation from (E- View- Version 12)

The stationarity test for each of the series via the ADF test as presented in Table 4.3 showed that; the only variable that is stationary at order zero (at level) is PVI. This is because the ADF test statistic value is greater than the critical values at 5% critical values. Meanwhile, the remaining variables such as PCI, ITE, and XTE which were not stationary at order zero (at level), were differenced once and they became stationary at order one (first difference) prior to further estimations, to avoid false regressions results when these variables were used in model estimations.

Discussion of Ordinary Least Square Multiple Regression Result for PVI Model

Table 4.3 Analysis and Discussion of Regression Result for the Estimated Poverty Index Model

Dependent Variable Poverty Index (PVI)				
Variables	Coefficients	t-statistics	Probability	Critical value @5%
Constant (C)	67.39231	20.10812	0.0000	0.0500
ITE	0.528475	0.632180	0.5335	0.0500
XTE	-0.138910	-0.812643	0.4248	0.0500
R-Squared	0.7706	f-statistics	4.5820	
Durbin Watson	1.8922	Prob (f-statistic)	0.0322	

Note PVI= Poverty index, **ITE=** Import tax efficiency and **XTE=**Export tax efficiency.

Source Researcher's Computation from (E- View- Version 12)

The results of the estimated model as presented in Table 4.4 showed that the R-squared (R^2) value which measure the goodness of fit of the estimated model is 0.7706. Thus, the variation in poverty index brought about by import tax efficiency and export tax efficiency are about 77%. This showed that the model is a good fit. The Durbin Watson (DW) which measures the level of serial correlation

in an estimated model has the value of 1.8922. This value is very close to the DW bench mark of 2.0. Thus, serial autocorrelation is not a problem in the estimated poverty index model. Thus, the estimated model is valid for policy formulation. In like manner, the f-statistics which measures the overall significant of the independent variables in the model showed that, the three independent variables are significant in explaining the index of poverty in the Nigerian economy. This is because, the probability of (f-statistic) of 0.0322 < 0.0500 critical value at 5% level of significance.

The results in Table 4.4 showed that, the coefficient of export tax efficiency (XTE) has negative but insignificant relationship with poverty index (PVI). The negative sign conform to accounting/economic theory which posited negative link between the two variables. Thus, a unit increase in export tax efficiency will causes a decrease in the rate of poverty by 13.89% in Nigeria during the period of study. The result conforms to the finding of Kebo (2013) who studies tax revenue of UEMOA countries and averred that direct taxes negatively affects the overall performance of the tax system and hence economic development.

The coefficient of import tax efficiency (ITE) has positive and insignificant relationship with poverty index. Thus, a unit increase in import tax efficiency will increase the index of poverty by 52.84%. This conforms to accounting/economic theory which posited positive link between the two variables. This result is so because excess importation of finished goods does not improve the development of an economy. Rather it destroys the infant industries as a result of low patronage of local contents. The finding is in line with the scholarship of Okeke et al (2018) and Omondi et al (2014) who showed that, there is evidence of a long-run positive relationship between the revenue of aggregate revenue and economic growth in Nigeria and Kenya respectively.

Discussion of Ordinary Least Square Multiple Regression Result for PCI Model

This section analyzed and discusses the regression result in line with the objectives and hypotheses of the study in order to validate economic assumptions.

Table 4.4 Analysis and Discussion of Regression Result for the Estimated Per Capita Income Model

Dependent Variable Per Capita Income (PCI)					
Variables	Coefficients	t-statistics	Probability	Critical value @5%	
Constant (C)	142.1005	7.628421	0.0000	0.0500	
ITE	6.915406	2.488373	0.0025	0.0500	
XTE	237.9362	3.348574	0.0028	0.0500	
R-Squared	0.8198	f-statistics	33.8827		
Durbin Watson	1.5627	Prob (f-statistic)	0.0000		

Note *PCI= Per capita income, VAT=Value added tax efficiency, ITE= Import tax efficiency and XTE=Export tax efficiency.*

Source *Researcher's Computation from (E- View- Version 12)*

The result presented above showed that the R-squared (R^2) is 0.8198. Meaning that, the changes in per capita income (PCI) brought about by import and exports tax efficiencies is about 82%. This showed that the model is a good fit. The Durbin Watson (DW) which measures the level of serial autocorrelation in an estimated model has the value of 1.5627. This value is not too far from the DW bench mark of 2.0. Thus, it could infer that the model is free from problem of serial autocorrelation. Given the occurrence of no serial correlation, the estimated model is valid for policy formulation and implementation. In like manner, the f-statistics which measures the overall significant of the independent variables in the estimated model showed that the three independent variables are significant in explaining level of per capita income in Nigeria during the period of

study. This is because, the probability of (f-statistic) of $0.0000 < \text{critical value of } 0.0500$.

Meanwhile, the results in Table 4.4 showed that, the coefficient of export tax efficiency (XTE) has positive and significant relationship with per capita income (PCI). The positive sign conform to accounting/economic theory which posited positive link between the two variables. Thus, a unit increase in export tax efficiency will causes an increase per capita income by 237% in Nigeria during the period of study. The finding negates the empirical work of Charles (2012) when he averred that the output growth is negatively influenced by income tax rate such as export and excise duties.

Moreover, the coefficient of import tax efficiency (ITE) has positive and significant relationship with per capita income. Thus, a unit increase in import tax efficiency will increase the per capita income by 6.19%. This did not conform to accounting/economic theory which posited negative link between the two variables. This result is so because when imports exceed export, the economy will be at deficit, and this potent danger for the development of the economy. Theoretically, the finding is in line with the theory of open economy which states that; the interaction between exports and imports reflect the performance of the economy. Thus, if exports exceed imports, the economy is said to be in surplus, but where the reverse holds, the economy is said to be in deficit. Empirically, the findings is in line with the work of Omondi et al (214), who demonstrated hat, there is evidence of a long-run positive relationship between the revenue of aggregate import revenue and economic growth..

Bivariate Analysis

This is a form of quantitative analysis that involves the analysis of two variables for the purpose of determining the relationship between them. Bivariate analysis can be helpful in testing simple hypotheses in a study. Here in the study, the hypotheses were tested in relation to f-statistic.

Hypothesis One, and Four

There is no significant relationship between indirect tax revenue (measure by imports and exports tax efficiency) and poverty index in Nigeria.

The estimated results in Table 4.4 showed that, the probability (f-statistic) for the three independent variables is lower than, probability value at 5%. ($0.0322 < 0.0500$) Thus, the alternative hypothesis which states that there is a significant relationship between indirect tax revenue and poverty index in Nigeria was accepted. This implies that the combination of imports tax and exports tax efficiencies will significantly help to reduce the level of poverty in Nigeria during the period of review.

Hypothesis Two, and Four

There is no significant relationship between indirect tax revenue (measure by, imports tax and exports tax efficiency) and per capita income in Nigeria.

The estimated results in Table 4.5 showed that, the probability (f-statistic) for the three independent variables is lower than, probability value at 5%. ($0.0000 < 0.0500$) Thus, the alternative hypothesis which states that there is a significant relationship between indirect tax revenue and per capita income in Nigeria was accepted. This implies that the combination of imports tax and exports tax efficiencies will significantly help to increase the level of per capita income in Nigeria during the period of review.

Summary of Findings

1. The estimated ordinary least square (OLS) multiple regression result showed that, indirect tax revenue measured by value added tax efficiency, import tax efficiency and export tax efficiency jointly impacted on poverty index in Nigeria during the period of study. Nevertheless, Similarly export tax efficiency has negative relationship with poverty index While, import tax efficiency has

positive relationship with poverty index in Nigeria during the period of study.

2. The estimated ordinary least square (OLS) multiple regression result showed that indirect tax revenue measured by import tax efficiency and export tax efficiency jointly impacted on per capita income in Nigeria during the period of study. Also, all the two independent variables (import tax efficiency and export tax efficiency) were positively related with per capita income in Nigeria during the period of study.

Discussion of Findings

Export Tax Efficiency and Poverty Index in Nigeria from 1991-2020

The finding showed that, the export tax efficiency has negative but insignificant relationship with poverty index. This simply means that, a unit increase in export tax efficiency will causes a decrease in the rate of poverty in Nigeria during the period of study. The result supports the finding of Kebo (2013) who studies tax revenue of UEMOA countries and averred that direct taxes negatively affects the overall performance of the tax system and hence economic development.

Imports Tax Efficiency and Poverty Index in Nigeria from 1991-2020

The coefficient of import tax efficiency has positive and insignificant relationship with poverty index. Meaning that, a unit increase in import tax efficiency will increase the index of poverty. This is not good for a developing country like Nigeria whose expected imports ought to be in unfinished goods that will be transformed into finished products, which in the long-run will be exported to generate foreign exchange earnings for the nation. Meanwhile, this result is so because Nigeria is import dependent. The finding is in line with the scholarship of Okeke et al (2018) and Omondi et al (2014).

Exports Tax Efficiency and Per Capita Income in Nigeria from 1991-2020

The estimated results depicted that, export tax efficiency has positive and significant relationship with per capita income. Therefore, an increase in export tax efficiency will causes per capita income to increase significantly in Nigeria during the period of study. The finding supports the view of George–Anokuru and Obayori (2020) on indirect tax but negates the empirical work of Charles (2012) when he averred that the output growth is negatively influenced by income tax rate such as export duties.

Imports Tax Efficiency and Per Capita Income in Nigeria from 1991-2020

The estimated result showed that import tax efficiency has positive and significant relationship with per capita income. Therefore, an increase in import tax efficiency will increase the per capita income. Given this result, Nigeria as a nation need to increase her import of raw products that will be used for further production and then reduce her imports of finished products, which can be produce locally if all machineries' are set in place. Theoretically, the finding is in line with the "theory of open economy" which states that; the interaction between exports and imports reflect the performance of the economy. Thus, exports must exceed imports, in order to put the economy on the path of development Empirically, the findings is in line with the work of Omondi et al (214), who demonstrated hat, there is evidence of a long-run positive relationship between the revenue of aggregate import revenue and economic growth.

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND CONTRIBUTION TO SCHOLARSHIP

Summary

This study examined indirect tax revenue and economic development from 1991 – 2020. The specific objectives of the study were to; determine the effect of import tax efficiency on poverty index in Nigeria; determine the effect of import tax efficiency on per capita income growth in Nigeria;

Secondary data on the poverty index, human development index, per capita income, VAT efficiency, imports and exports tax efficiencies were sourced from CBN statistical bulletin and World Bank data base. The collected data were analyzed with the techniques of stationarity test (ADF unit root test) and ordinary least squares (OLS) multiple regression analysis. The empirical result showed that;

(I). Indirect tax revenue measured by import tax efficiency and export tax efficiency jointly impacted on poverty index in Nigeria during the period of study. Nevertheless, similarly export tax efficiency has negative relationship with poverty index While, import tax efficiency has positive relationship with poverty index in Nigeria during the period of study

(II) Indirect tax revenue measured by import tax efficiency and export tax efficiency jointly impacted on per capita income in Nigeria during the period of study. Also, all the three independent variables (import tax efficiency and export tax efficiency) were positively related with per capita income in Nigeria during the period of study.

Conclusions

This work empirically determined indirect tax revenue and economic development in Nigeria from 1991 – 2020. This was done against the background that the revenue of indirect tax such as exports and import duties has the potential to increase the revenue base of government and make funds available for developmental purposes through accelerated economic growth, reduction in poverty level, increased level of per capital income. Based on the empirical results, it was concluded that indirect tax revenue in terms of import tax efficiency and export tax efficiency significantly impacted on economic development in Nigeria during the period under review. The implications of the findings were that the Nigerian government can boost economic growth and development through realizing that revenues should focus on boosting revenue from indirect tax sources.

Recommendations

Based on the findings of this work, the following policy recommendations are suggested: -

(i) The analysis showed that, indirect tax revenue impacted on economic development; thus, government should formulate and implement export policy measures towards exporting goods that are growth and development drivers, particularly, refined goods in the area the nation has comparative advantage in order to make the domestic production viable and compete with the industrialized economy of the world.

(iii) Given the fact that the empirical result showed that indirect tax revenue in the forms of exports and import tax did not individually impacted on economic development, in the term so poverty reduction during the period under review, therefore, government should identify administrative loopholes that drains the revenue from imports and export duties so that, they can significantly impact on economic development in terms of achieving good standard of living, good education and quality health status and as well environment devoid of insecurity.

Contribution to Scholarship

(i) The study has contributed significantly to the existing stocks of knowledge by proving empirically that indirect tax revenue serves as major source of the Nigeria revenue that significantly contributed to economic development in terms of poverty reduction, and increase per capita income.

(ii) Moreover, none of the known empirical works cited in Nigeria used annual data to determined tax revenue and economic development. This study made a significant contribution to knowledge in this area by using data on tax revenue or efficiency. This was measured as ratio of indirect tax to total output of the economy measured by real gross domestic product.

Limitations of the Study

The research is constrained by the paucity of literature material availability for the research. Another factor that limited this study was the difficulty in data collection method. In the interim, the study was certainly constrained by insufficient capital. But with solid help from family, companions and academic staff of the department and other resource persons, the constraints were overcoming.

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