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INDIRECT TAXES AND ECONOMIC GROWTH IN NIGERIA

Abstract

This study examined the impact of indirect taxes on economic growth of Nigeria, utilizing time series data spanning a thirty-four year period, from 1981 to 2014. The data collected from secondary sources, were analyzed and tested for unit root, using the Augmented Dickey-Fuller test. The residuals, whose unit root are usually tested at level, were found to be stationary while all other variables, such as the Value Added Tax (VAT), Petroleum Profit Tax (PPT) and Custom and Excise Duties (CED), except the Real Gross Domestic Product (RGDP), were stationary at second difference, suggesting a long run relationship. Consequently, the study utilized the Error Correction Model to evaluate the impact of VAT, PPT and CED on the RGDP. The findings revealed that VAT and PPT exert a positive and significant relationship on the RGDP. It was also revealed that CED of two-period lags has a positive relationship with RGDP and VAT of two-period lags showing a negative but significant relationship with RGDP. On the basis of these findings, it is suggested that some caution on the part of the government is required to identify all administrative loopholes for linkages to plug and to continue to maximize the contribution of VAT revenue to economic growth. This is important when it is realized that any action taken on VAT, as it relates to

RGDP will take a year to become effective while taking two years to slow down the economy. In addition, and to achieve an optimum policy thrust, there must be commitment and honesty on the part of the agents of VAT., PPT., and CED with respect to its collection and payment ; special remuneration, training and retraining of these agents, all in an attempt to enhance impact of these taxes on economic growth.

Key words: *Value Added Tax, Petroleum Profit Tax, Custom and Excise Duties, Real Gross Domestic Product, Nigeria.*

1.   INTRODUCTION

The responsibility shouldered by the government of any nation, particularly the developing nations, is enormous. The need to fulfil these responsibilities largely depends on the amount of revenue generated by the government through various means. Taxation is one of the oldest means by which the cost of providing essential services for the generality of persons living in a given geographical area is funded. Globally, governments are saddled with the responsibility of providing some basic infrastructures for their citizens. Functions or obligations the government may owe her citizens include but are not restricted to: stabilization of the economy, redistribution of income and provision of services in the form of public goods. (Abiola & Asiweh, 2012).

Taxation is a major source of government revenue all over the world and governments use tax proceeds to render their traditional functions, such as: the provision of goods, maintenance of law and order, defence against external aggression, regulation of trade and business to ensure social and economic maintenance (Edame & Okoi, 2014). The primary function of a tax system is to raise enough revenue to finance essential expenditures on the goods and services provided by government; and tax remains one of the best instruments to boost the potential for public sector performance and repayment of public debt (Okoye & Ezejiofor, 2014). A system of tax avails itself as a veritable tool that mobilizes a nation's internal resources and it lends itself to creating an environment that is conducive for the promotion of economic growth (Ayuba, 2014). Therefore, taxation plays a major role in assisting a country to meet its needs and promote self-reliance.

In Nigeria, tax revenue has accounted for a small proportion of total government revenue over the years compared with the bulk of revenue needed for development purposes that is derived from oil (Otu & Adejumo, 2013). The serious decline in the prices of oil in recent times has led to a decrease in the funds available for distribution to the federal, state and local governments (Afuberoh & Okoye, 2014). Consequently, dependence on oil as a particular or main source of revenue in Nigeria has become risky and not beneficial for sustainable economic growth. It is worse for Nigeria where there are fluctuations

in prices in the oil market; thereby creating concerns amongst Nigerians and indeed the Nigerian government on the need to diversify the economy.

Naturally, and globally, there is a paradigm shift to taxation revenue as an alternative source of revenue. Nigeria is not an exception. The machinery and procedures for implementing a good tax system in Nigeria are inadequate; hence tax evasion and avoidance of the self-employed individuals and organizations whose data base is not captured in the relevant tax authority's data system (Fasoranti, 2013). The need for the government to generate adequate revenue from internal sources has therefore become a matter of extreme urgency and importance (Afuberoh & Okoye, 2014).The desire of any government to maximize revenue from taxes collected from tax payers cannot be over-emphasized. This is because, as it well-known, the importance of tax lies in its ability to generate revenue for the government, influence the consumption trends and grow and regulate economy through its influence on vital aggregate economic variables (Fasoranti, 2013).

In the light of the above, and in broad spectrum, this paper examines the impact of indirect taxes on economic growth in Nigeria. This topic is formed and informed against the backdrop of the need for a paradigm shift to indirect taxation in the face of the dwindling oil prices and the relative paucity of studies, using inflation-factored GDP in Nigeria. To this end, and in order to set a direction for this paper, hypothetically, it is proposed that indirect taxes do not impact the economic growth in Nigeria. The paper contains several sections. Thus, Section 2 reviews the current state of the related literature. This is followed by section 3 which harps on the methodology and data for analysis. Section 4 presents the data analysis and discussion of the results. Section 5 concludes with remarks.

2.   LITERATURE REVIEW

2.1.   The Tax System in Nigeria

Taxes do not just constitute the principal source of government revenue but they are in fact fundamental components of any attempts to build societies, and indeed nations. (Ibadin & Eiya, 2013). The Nigeria tax system is basically structured as a tool for revenue generation and this is a legacy from the pre-independence government based on 1948 British tax laws (Okoye & Ezejiofor, 2014). The government of Nigeria, like others in different parts of the world, has legislative powers to impose on its citizens any form of tax and at whatever rate it deems appropriate. Although, tax under any jurisdiction is discriminatory, in that it is assessed on persons or property based on profits/income or gain, the benefit conferred on the citizens is without reference to the contributions of individual tax payers. The flip side of the resource allocation dimension of a sound taxation policy is its role in promoting investment as well as ensuring a healthy economy through the creation of new wealth.

The history of taxation in Nigeria dates back to the pre-colonial era. Before the colonization of the different entities which were later amalgamated under the name Nigeria, there were different systems of taxation existing in form of compulsory services, contribution of goods, money, labour etc. amongst the various kingdoms, ethnics groups and tribes controlled by the Obas, Emirs, Ezes, in order to sustain the Monarchs. Nigerian taxation in its present form is traced to the establishment of a British Colony in Lagos and subsequent amalgamation of the Northern and Southern protectorates in 1914.

Nigeria is governed by a federal system and consequently operates a federal tax system. Namely, the government fiscal power and policy is based on a three tiered tax structure shared between the federal, state and local government, with each having different tax jurisdiction. The powers of the tax system in Nigeria is mostly given by tax legislations passed by Acts of the National and State House of Assembly and Bye-laws by local government authorities in a democratic government or Decrees or Edicts under a military government. These legislations confer necessary powers on the taxing authorities to impose taxes on the citizens, i.e. individuals, companies etc.

The tax system in Nigeria is made up of tax policy, tax laws and tax administration and it is expected that they work together in order to achieve the goal of the nation's economy (Abiola & Asiweh, 2012). In generating revenue to achieve this goal, the tax system is expected to minimize distortion in the economy. Taxes at the federal level are administered by the Federal Inland Revenue Service (FIRS) while those at the state level are administered by the State Inland Revenue Service (SIRS).

2.2.   Conceptual Clarifications of Economic Growth

Economy plays a large part in any society and therefore touches upon a multitude of sectors within a country. Economic growth as a concept is viewed differently by different scholars. Salami, Apelogun, Omidiya & Ojoye (2015) describe economic growth as the sustained increase in per capita national output or net national product over a long period of time. According to them, economic growth occurs when a nation's production possibility frontier shifts outward. According to the Business Dictionary, economic growth is the increase in a country's productive capacity, as measured by comparing the gross national product in a year with that of the previous year. Increase in the capital stock, advances in technology, and improvement in the quality and level of literacy are considered to be the principal causes of economic growth. Economic growth can be proxied, using different economic indicators, ranging from Gross National Product (GNP), Market Capitalization, Gross Domestic Product (GDP), and Per Capita Income.

2.3.   Indirect Taxes and Economic Growth

The core function of taxation as a revenue generating tool in developing countries has been studied by eminent scholars ((Myles, 2000; Izedonmi & Okunbor, 2014; Saheed, Abarshi & Ejide, 2014). Several taxes and levies are collected in Nigeria in order to boost the revenue available to the government. These taxes have in one way or the other impacted the economy of the nation. Taxes that have without much ado proved potent in driving the economy, find expression in Value Added Tax (VAT), Petroleum Profit Tax (PPT) and Customs and Excise Duties (CED).

2.3.1.   Value Added Tax and Economic Growth

Value Added Tax is a consumption tax levied on the increase in value of goods and services in the course of their production or supply. It is an indirect tax whose burden or incidence is borne by the final consumer of such goods on which it is imposed. It is regulated by the Value Added Tax Act No 102 of 1993 and became effective on 1st January 1994. The aim of this tax was to increase the revenue base of government and make funds available for developmental purposes (Oseni, 2008).

Adereti, Adesina & Sanni (2011) examined the impact of Value Added Tax on the economic growth of Nigeria. They used the time series data on the Gross Domestic Product (GDP), Vat Revenue, Total Tax Revenue and Total (Federal Government) Revenue from 1994 to 2008. These data were analyzed using multiple regression modelling. Their findings showed that the ratio of VAT Revenue to GDP averaged 1.3% compared to 4.5% in Indonesia and indicated a positive and significant correlation between VAT Revenue and GDP. It also showed that no causality existed between the GDP and VAT Revenue but a lag of two years however existed. Onwuchekwa and Aruwa (2014) investigated the impact of value added tax (VAT) on the economic growth of Nigeria. They employed the Ordinary Least Square technique to test the hypothesis formulated. The result showed that VAT contributed significantly to the total tax revenue of government and by extension, the economic growth of Nigeria. It was also observed that VAT revenue growth had a consistent, although not explosive, increase.

Izedonmi and Okunbor (2014) empirically examined the contribution of VAT to the development of the Nigerian economy. It used time series data on the Gross Domestic Product (GDP), VAT Revenue, Total Tax Revenue and Total (Federal Government) Revenue from 1994 to 2010. The data were analyzed using multiple regression modelling. Their findings showed that VAT Revenue accounted for 92% significant variations in Nigeria's GDP. It showed a positive but insignificant correlation between VAT Revenue and GDP. Onaolapo, Aworemi and Ajala (2013) examined VAT and its effect on revenue generation in Nigeria. They used the stepwise regression analysis technique to analyze their data. Their findings showed that Value Added Tax has statistically significant effect on revenue generation in Nigeria. Bakare (2013) investigated VAT on

output growth in Nigeria. Using the Ordinary least Square regression technique, he found a positive and significant relationship between VAT and output growth in Nigeria. The results of his findings also showed that the past values of VAT could be used to predict the future behaviour of output growth in Nigeria. The main conclusion of the study was that Value Added Tax has the potential to assist in the diversification of revenue sources, thereby providing enough funds for economic growth and development and reducing over dependence on oil for revenue.

Olatunji (2009) did a study on the effectiveness of the administration of VAT to improve government revenue and boost economic growth in Nigeria. It used simple percentage and chi-square to analyze the data. The study showed a positive correlation between VAT and GDP. Okoli and Matthew (2015), examined the extent to which VAT had contributed to Nigeria's total federally-collected revenue and its position among the other tax components from 1994-2012. Using the Error Correction Model (ECM) for the analysis, results revealed that VAT was the second long term source of the total federally collected revenue.

2.3.2.   Petroleum Profit Tax and Economic Growth

The role and strategic importance of the petroleum industry to the Nigerian economy cannot be over-emphasized, as it is the main fulcrum around which the entire economy revolves. Petroleum Profit Tax is payable by companies which are engaged in petroleum operations. The fundamental objectives of petroleum taxation is to ensure a fair share of wealth accruing from the extraction of the petroleum resource, while also providing sufficient incentives to encourage investment and optimal economic recovery of the hydrocarbon resource (Saheed, Abarshi & Ejide, 2014). Petroleum operations essentially involve petroleum exploration, development, production and sales of crude oil and gas (PPT Act, 2010).

Ogbonna and Appah (2012) investigated the effects of petroleum income on the Nigerian economy for the period spanning from 2000 to 2009, using the Gross Domestic Product (GDP), Per Capita Income (PCI), and Inflation as the explained variables and Petroleum Profit Tax and Royalties (PPTR) and licensing fees as the explanatory variables. Simple regression models were used in this study to evaluate the data collected. Their findings showed that oil revenue had a positive and significant relationship with GDP and PCI, but a positive although insignificant relationship with inflation. Similarly, it was found that Petroleum Profit Tax and Royalties had a positive and significant relationship with GDP and PCI but a negative and insignificant relationship with Inflation. It also found that licensing fees had a positive but insignificant relationship with GDP, PCI and Inflation, indicating that Petroleum Income (Oil Revenue and Petroleum Profit Tax and Royalties) positively and significantly impacted on the Nigerian economy when measured by Gross Domestic Product (GDP) and Per Capita Income (PCI).

Saheed, Abarshi and Ejide (2014), also attempted to measure the impact of Petroleum Tax on the economic growth in Nigeria. In their research, a simultaneous equation model was used to establish a relationship between the variables; Domestic Consumption and the production of crude oil, petroleum taxation and government policies. The result obtained from their analysis revealed that a strong positive relationship existed between domestic consumption, Petroleum Profit Tax (PPT), government policy and economic growth (GDP). It was also found in the study that crude oil production had a negative but significant effect on economic growth and other variables. Based on their findings, they recommended that part of the revenue accrued to the government purse from the Petroleum Profit Tax should be directed towards exploration and development of other mineral resources in order to achieve diversification of the economy.

Jibrin, Blessing & Ifurueze (2012) ascertained the impact of Petroleum Profit Tax on the growth of the Nigerian economy for the period 2000 to 2010. They made use of the ordinary least square regression technique. They found that Petroleum Profit Tax impacted positively on Gross Domestic Product of Nigeria and that the relationship was statistically significant. Onaolapo, Fasina and Adegbite (2013) empirically examined the effect of Petroleum Profit Tax (PPT) on Nigeria's economy from 1970 to 2010. Multiple regressions were employed to analyze data, involving the variables as Gross Domestic Product (GDP), Petroleum Profit Tax, Inflation and Exchange Rates. The results of the study showed that the variables were all statistically significant with the economic growth of Nigeria with the adjusted R^2 of 86.3%. Following the outcome of the study, they concluded that abundance of petroleum and its associated income had been beneficial to the Nigerian economy.Appah and Ebiringa (2012) investigated the impact of Petroleum Profit Tax on the economic growth of Nigeria. Relevant data were collected from the CBN and FIRS from 1970 to 2010 and analyzed, using a granger causality model. The results showed a long-run equilibrium relationship between economic growth and Petroleum Profit Tax. It also found that petroleum profit tax did granger cause Gross Domestic Product of Nigeria.

2.3.3.   Customs and Excise Duties and Economic Growth

Customs duty is a tax levied on imports (and sometimes on exports) by the customs authorities of a country to raise revenue for the state and/or to protect domestic industries from more efficient or predatory competitors from abroad. Customs duty is based generally on the value of goods or upon the weight, dimensions, or some other criteria that will be determined by the state. Customs and excise duties are the oldest forms of modern taxation and are otherwise known as import duties. They are charged either as a percentage of the value of import or a fixed amount on specific quantity (Fasoranti, 2013).

Ebiringa and Emeh (2012) examined the impact of various taxes on the economic growth in Nigeria, using a time period of 1985-2011. Results showed that customs and excise duties was negatively related to gross domestic product,

implying that an inverse relationship existed between customs excise duties and economic growth in Nigeria.   Ayuba (2014) analyzed the impact of non-oil tax revenue on economic growth from 1993 to 2012 in Nigeria. The data sourced from the 2012 statistical bulletin of the Central Bank of Nigeria (CBN), were analyzed using the ordinary least square regression technique. The results showed the existence of a positive relationship and impact of non-oil tax revenue on the economic growth in Nigeria.   Salami, Apelogun, Omidiya and Ojoye (2015), empirically investigated the impact of taxation on the growth of the Nigerian economy from 1976-2006. The study employed the use of both simple and multiple linear regression analysis of the ordinary least square method to determine the impact between the endogenous variable, RGDP, and the exogenous variables, PPT, CIT, CED and VAT. It was discovered that all exogenous variables, including CED, had a significant impact on the economy of the nation.

In summary, the methodical review of the literature above suggests that there is yet a consensus to be reached on findings. The reasons for this as presented below, though anecdotal, may not be far-fetched: The different methodologies used by the different authors, the environments or settings under which the studies were carried out, the nature of data and sources in different jurisdictions and the policy thrust, among others could account for these differences. Besides, the the proxy and concept of economic growth used by a number of the authors was the inflation-unadjusted GDP. In a setting, like Nigeria, where inflation is relatively uncontrolled, the use of the unadjusted GDP is not good enough. In this study, the Real GDP is used as an inflation-adjusted measure that reflects the true value of all goods and services produced in a given year. Besides, unlike many authors reviewed above, a concentration is made on some indirect taxes, given their popularity as revenue generating instruments.

2.4.   Theoretical Framework

2.4.1.   Ability to Pay Theory

The cannons of taxation give credence to this theory, and stress the capacity of the contributor to the common pulse of the State to make such contribution at a time and in manner that it is most convenient. Taxes to the State are made without quid pro quo benefits (Chigbu et al, 2012). To this extent, the theory holds that persons should pay taxes in proportion to their individual capacity. This means that people with higher income should pay more than people with lower income. In the context of this study one's ability to pay may suggest that as more and more expenditures are incurred by a person the same should pay more tax and vice versa. Given this regard, the PPT and CED can conveniently fit into this as the PPT has a tax rate of 85% on profit of companies in petroleum operations while CED is basically charged on the value of the goods or some other weight.

The ability-to-pay theory is also termed the equality of sacrifice theory (Adam, 1776 in Adam Smith Institute, n.d.) which has gained popularity on the grounds of the true meaning of 'ability' of the individual. This appears to be a just and fair means of taxing citizens. This is the reason why most economies of the world today accept income as the best measurement of one's ability to pay.

2.4.2.   Expediency Theory

According to Adam (1776) cited in Adam Smith Institute (n.d.), every tax proposal must pass the test of practicality and that must be the only consideration government authority should consider in choosing a tax policy. This theory which is embedded in the cannon of economy explains the economy, effectiveness and efficiency of tax collection instrument. Taxation is seen to provide a powerful set of policy tools to the authorities and such tools should be effectively used for remedying economic and social ills of the society such as income inequalities, regional disparities, and unemployment and so on. (Chigbu, Eze & Ebimobowei, 2011)

3.   METHODOLOGY AND DATA

This study adopted the ex-post facto and longitudinal methods based on the existence of data needed for analysis, on one hand and given the time series data the relevant variables for the years 1981-2014. Consequently, the population was designed in terms of content, extent and time. To this end the population related to the tax revenue and economic growth in Nigeria from 1981 to 2014. The data were obtained mainly from secondary sources, made up of Real Gross Domestic Product (RGDP) of Nigeria, from 1981-2014, collected from the Central Bank of Nigeria. The Real Gross Domestic Product (RGDP) is adopted as the proxy for economic growth because the Real GDP is an inflation-adjusted measure that reflects the value of all goods and services produced in a given year, expressed in base-year prices. The Real GDP is preferred as a measure of economic growth in this paper because (i) it reduces distortions due to economic factors such as inflation and currency rate fluctuations; (ii) it has a greater accuracy in expressing national economic performance than GDP. The independent variables for this study include: Petroleum Profit Tax, Value Added Tax, Customs and Excise Duties from 1981 to 2007 were collected from the Central Bank of Nigeria. Petroleum Profit Tax, Value Added Tax and Customs and Excise Duties from 2008 to 2014 were collected through the Federal Inland Revenue Service. These independent variables were chosen because of their potency and capacity to generate maximum revenue for the government when fully harnessed. It should be noted that the Value Added Tax became operational in Nigeria in 1994; while data for Real GDP in 2014 was rebased using 2010 prices.

3.1.   Data Analysis and model specification

The analytical technique used in this research was the Error Correction Model (ECM). In order to test for stationary often associated with time series data analysis, the Augmented Dickey-Fuller (ADF) for unit root test was employed.

3.1.1.   Data analysis

The paper employed the use of time series data for a period of 34 years ranging from 1981-2014. The OLS model was first specified and then the residuals generated. The residuals were further tested at levels and found to be stationary at 10% critical level. Thereafter the parsimonious ECM model was used. Meanwhile, the variables were individually tested for stationarity at first and second difference; and they were found to be stationary at second difference except for the real gross domestic product (RGDP). However the residuals represented by the ECM were found to be stationary, suggesting that the variables were co-integrated in the long run. This therefore gave rise to the formulation and subsequent use of the ECM.

3.1.2.   Model specification

The chosen economic growth indicator, as the dependent variable, was the Real Gross Domestic Product (RGDP) while the independent variables were Petroleum Profit Tax (PPT), Value Added Tax (VAT) and Customs and Excise Duties (CED). In order to examine the impact of indirect taxes on Nigeria's economic growth, the following functional relationship is expressed as follows:

RGDP = f (PPT, VAT, CED).

From the above function, the following testable model is derived:

$$RGDP_t = a_0 + \beta_1 PPT_t + \beta_2 VAT_t + \beta_3 CED_t + s_{t1}$$

Where; $RGDP_t$:   Real Gross Domestic Product for 34 year period; PPT_t : Petroleum Profit Tax for 34 year period; VAT_t: Value Added Tax for 20 years period; CED_t; Customs and Excise Duties for 34 years period ; a_0 is constant term; $\beta_1, \beta_2, \beta_3$ are the coefficients of the parameter estimates. ε_t is the error term. The a priori expectation is $\beta_1, \beta_2, \beta_3 > 0$. The dependent variable is regressed against the independent variables in order to examine the relationship between them.

4. ¸   RESULTS AND DISCUSSIONS

Table 1

Descriptive statistics for 1981 to 2014

	RGDP	VAT	PPT	CED
Mean	3729.919	278.3102	1200.161	286.6061
Median	527.5800	159.5000	939.4122	195.5000
Maximum	67152.79	802.9647	3201.320	977.0900
Minimum	345.2300	7.260800	42.80270	18.29460
Std. Dev.	14533.21	278.6260	1064.622	275.0273
Skewness	4.247365	0.799515	0.492908	1.289938
Kurtosis	19.04375	2.129383	1.924719	3.538273
Jarque-Bera	288.3670	2.900513	1.862053	6.077308
Probability	0.000000	0.234510	0.394149	0.047899
Sum	78328.30	5844.514	25203.39	6018.729
Sum Sq. Dev.	4.22E+09	1552649.	22668385	1512800.
Observations	21	21	21	21

From the table above the means and standard deviations of the variables are shown. From the results, the RGDP was found to have a mean and standard deviation of ₦3729.919 billion and ₦14533.21billion; VAT had a mean of ₦278.3102 billion and standard deviation of ₦278.6260. The PPT and CED had averages of 1200.161 and 286.6061 respectively and standard deviations of ₦ 1064.622 and ₦ 275.0273. The minimum and maximum values of the variables are detailed in the table. It is of interest to note that the standard deviation with regard to the Real GDP when compared with the mean suggests that the RGDP had some sharp increases in some time during the period under consideration. The line graph in figure 1 below throws light on the trend behaviour of all the variables.

Figure 1: Multiple Line graphs for RGDP, VAT, PPT and CED for
1981-2014
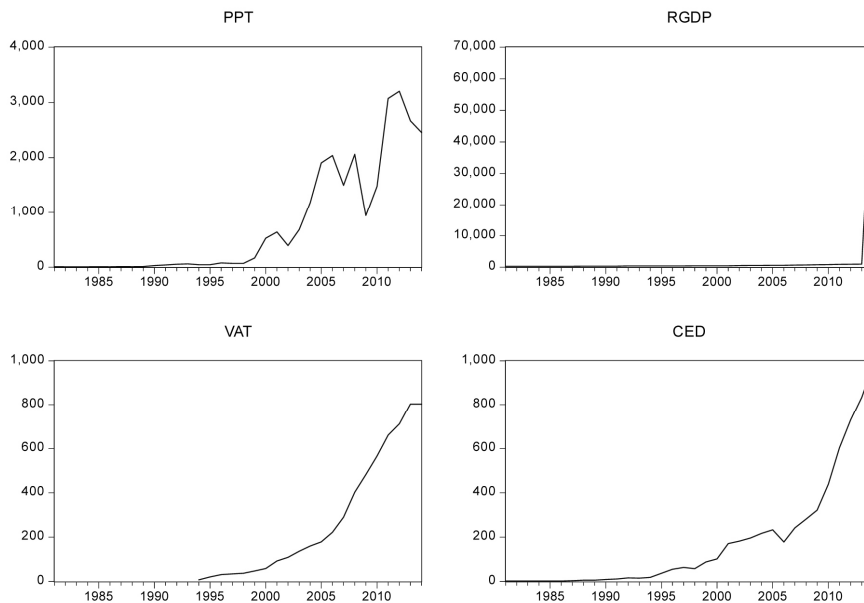
The flash point in the above graph was the sharp rise of the RGDP in the later years under consideration. This behaviour may be connected with the increase of the RGDP as a result of the revision of the parameters used for the RGDP. Furthermore, a clearer trend is observed in the graphs relating to VAT and CED, indicating an upward movement with RGDP. This however cannot be said with the PPT which experienced some oscillations at some points.

4.1.   Regression Results

The study employed the use of time series data for a period of 34 years ranging from 1981-2014. The OLS model was first specified and then the residuals generated. The residuals were tested at levels and found to be stationary at 10% critical level. Thereafter, the parsimonious ECM model was used. Meanwhile, the variables were individually tested for stationary at first and second difference; and they were found to be stationary on second difference except the real gross domestic product. However the residuals found stationary, suggest that the variables were co-integrated in the long run. This therefore gave rise to the formulation and subsequent use of the ECM.

Table 2

Unit root test (Unit root test at 2nd Difference)

Variable	ADF	Critical value	Prob
VAT	-4.984	-2.673	0.001
PPT	-8.312	-2.636	0.000
CED	-10.456	-2.625	0.000
RGDP	0.333235	-2.619160	0.9763(Not stationary at 1st and 2nd difference)

Source: Researcher's compilation

From the table above, it was observed that all the variables except RGDP were found to be stationary after second (2nd) difference. However, the unit root test was carried out on the residuals of the variables. The result revealed that the residuals of the variables, captured by the ECM were stationary. This leads to the acceptance of the postulate that there is a long-run relationship among the estimating parameters.

Table 3

Regression results- Parsimonious Error Correction model

Variables	Coefficients	t-statistics	Prob.
C	-8672.279	-1.810604	0.1036
DVAT(-1)	592.9121	3.154238	0.0117
DVAT(-2)	-689.2326	-3.597627	0.0058
DPPT	15.36703	2.426998	0.0382
DPPT(-1)	-11.66544	-3.280240	0.0095
DCED	-34.12821	-0.631362	0.5435
DCED(-2)	243.5768	3.644148	0.0054
ECM(-1)	-1.706223	-2.062087	0.0692
Adjusted R-squared	0.695963		
Durbin-Watson stat	1.642970		
F-statistic	6.232169		

Source: Author's compilation

From the parsimonious ECM regression results, the coefficient of determination adjusted for degree of freedom, depicted by Adjusted R-squared, stood at a value of 0.70, which indicates that the model accounts for 70% of the systematic variation exhibited by the dependent variable economic growth proxied by RGDP while the remaining 30% are explained by the stochastic error term. An examination of the F-stat. which explains the overall significance of the model has a value of 6.23 with a probability of 0.00, indicating that the model is statistically significant and that the model has the ability of explaining the actual behaviour of the dependent variable in the long run. The Durbin Watson statistics

has a value of 1.6. This indicates that the presence of first-order serial correlation does not exist in the model and consequently does not have any element of bias, making the model admissible in decision making. Furthermore, an examination of the explanatory variables reveal that value added tax of a period lag exerts a significant and positive relationship on the real gross domestic product (economic growth). This finding is consistent with Adereti et al. (2011) and Onwuchekwa and Aruwa (2014) who all held that Value Added Tax had a positive and significant relationship with economic growth in Nigeria.

Although the value added tax of two periods lag was found to exert a negative relationship on economic growth, it was still found to be significant as revealed by P- value of 0.0058 which is less than the 10% of critical value. This therefore indicates that some elements, like change in consumption resulting from taste and fashion on the part of consumers or policy direction of the government, might have affected the shift exhibited by this variable. Petroleum profit tax exhibited a positive relationship with economic growth. It was also observed that petroleum profit tax of a year ago has an impact on economic growth. It was however found to be statistically significant at 10%, implying that revenue generated from organizations in the oil sector accounts for the level of growth in the real GDP of the economy in the long run. This is quite realistic given that an oil-driven or mono-product Nigeria can derive her chunk of revenue from oil for developments. This finding is consistent with Ogbonna and Appah (2012), Saheed et al. (2014), Jibrin et al. (2012) and Onaolapo et al. (2013) and Appah & Ebiringa (2012). This is however in contrast with the findings of Fashoranti (2013) which revealed a negative relationship between Petroleum Profit Tax and economic growth. A negative relationship between PPT and economic growth as reported by Fashranti (2013) may arise for a number of reasons: when PPT does not constitute the propelling force for economic growth, when the data cannot be linked with or related to the proxy used for economic growth or when there is no trend, among other reasons.

It is noted that in terms of CED the custom and excise duty from two years ago was found to have a positive relationship with economic growth. This means that taxes levied on imported goods and exports in some past can still play a significant role today in boosting the growth of the economy. This finding is consistent with the work of Fashoranti (2013) and Okafor (2012).

Finally from the result above, it was observed that the ECM with one period lag, denoted as ECM (-1), was found to have a negative coefficient of 1.7. Though the coefficient of ECM reveals a value exceeding the norm of 0 to 1, the value of 1.7 however provides a clear indication of the ability of the model to adjust from disequilibrium to equilibrium at a greater speed at a given period. The coefficient of ECM stood at a value of -1.7 meaning that the system corrects its previous period disequilibrium at a speed of 170% per annum.

5.   CONCLUSION

The broad objective of this study was to examine the impact of indirect taxes on the economic growth of Nigeria. The research adopted the Error Correction Model in analyzing the data, having observed that the residuals, defined in terms of the group ECM, were stationary, though the variables except the RGDP were stationary. The findings revealed that VAT and PPT exert a positive and significant relationship with the RGDP. Besides, CED of two-period lags has a positive relationship with RGDP with VAT of two-period lags showing a negative but significant relationship with RGDP .For future research, it is suggested that a holistic picture of indirect taxes beyond the ones used for this paper be examined as this may provide indirect tax options that may be important and germane to economic growth in Nigeria.

5.1.   Recommendations

The finding on VAT with one period lag of one suggests some caution on the part of the government to identify all administrative loopholes for linkages to plug and to continue to maximize the contribution of VAT revenue to economic growth. This is important when it is realized that any action taken on either VAT Revenue or the GDP will take a year to become effective while taking two years to slow down the impact of VAT on economic growth as demonstrated in the VAT with two period lags. In addition, and to achieve an optimum policy thrust, there must be commitment and honesty on the part of the agents of VAT, PPT, and CED with respect to the collection and payment; special remuneration, training and retraining of these agents, all in an attempt to enhance impact of these taxes on the economic growth. Caution and watch 'is' advised on any policy direction on the collection of taxes on imports and exports in order to avoid using the policy as a counter-incentive to the economy. This can occur when a particular policy direction is targeted at maximum collection of CED at the expense of the economy.

With reference to PPT it is recommended to improve the effectiveness and efficiency of administration and collection of taxes by government and an overhaul of the government agency responsible for overseeing oil operations. This is in contrast with the work by Fasoranti (2013), as the results in that research showed that Petroleum Profit Tax had low elasticity index and negatively related to GDP, implying that the resources from the petroleum sector had not translated to meaningful growth of the economy. The government should transparently and judiciously account for these taxes through a carefully defined programme of infrastructural developments to make for willing compliance to tax payments. It is even suggested for future study to expand the scope of this study by examining other forms of indirect taxes on one hand; and direct taxes on the other hand to trace their impact to real economic growth.

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NEIZRAVNI POREZI I EKONOMSKI RAST U NIGERIJI

Sažetak

U ovom istraživanju ispituje se utjecaj neizravnih poreza na ekonomski rast u Nigeriji, koristeći podatke prikupljene u razdoblju od 34 godine, od 1981. do 2014.. Podaci koji su prikupljeni iz sekundarnih izvora analizirani su i testirani na jedinični korijen Augmented Dickey-Fullerovim testom. Ostaci, čiji jedinični korijeni se obično testiraju na istoj razini, bili su stacionarni dok su sve druge varijable, poput poreza na dodanu vrijednost (VAT), poreza na dobit od nafte (PPT) i carinskih trošarina (CED), osim realnoga bruto domaćeg proizvoda (RGDP), bile stacionarne na drugoj razini, što ukazuje na dugoročni odnos. Stoga, u istraživanju je korišten model korekcije odstupanja da bi se procijenio utjecaj VAT-a, PPT-a i CED-a na RGDP. Rezultati istraživanja pokazali su da su VAT i PPT pozitivno i značajno povezani s RGDP-om. Također, pokazalo se da je CED u dvama periodima pozitivno povezan s RGDP-om. Dobiveni rezultati upućuju na oprez koji bi vlada trebala pokazati prilikom identifikacije svih administrativnih rupa, kako bi se poveznice uključile i nastavile maksimalno pridonositi ekonomskom rastu prihodom od poreza na dodanu vrijednost. Ovo je važno imamo li u vidu da će trebati godinu dana da se pokaže učinak bilo kakve intervencije na porezu na dodanu vrijednost jer on utječe na RGDP, dok će za usporavanje ekonomije trebati dvije godine. Osim toga, kako bi se postigao maksimalan učinak ove politike, potrebno je da sudionici u porezu na dodanu vrijednost, PPT i CED budu u potpunosti posvećeni i iskreni prilikom prikupljanja i plaćanja; također je potrebna posebna naknada, obuka i dodatna obuka svih sudionika kako bi se povećao utjecaj ovih poreza na ekonomski rast.

Ključne riječi: porez na dodanu vrijednost, porez na dobit od nafte, carinske trošarine, realni bruto domaći proizvod

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