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Empirical Analysis of Indirect Taxation and Economic Development of Nigeria

Prof. Ocheni,

Faculty of Management Science,
Kogi State University, Anyigba, Nigeria.

ABSTRACT

Using time series data of 17years period (2000- 2016), this study investigated the impact of indirect tax on economic development of Nigeria. Employing the ordinary least square multiple regression analysis to estimate the model specified. Value Added Tax (VAT) and Customs and Excise Duties (CED) were adopted as the dependent variables while Human Development Index (HDI) represents the dependent variable. The data were analyzed using Multiple Regression Analyses in line with the research objectives of the study. The evidence, however, shows that indirect tax through Value Added Tax has a positive and significant relationship with Human Development Index in Nigeria within the year under study. It was also discovered that custom and exercise duties had positive impact on the human development index. Based on the result, it was concluded that indirect tax collected through VAT and CED by the federal government impact positively on economic development of Nigeria. It is recommended that the government should create an enabling environment for and sensitize tax payers on the need for tax payment and punishment for non-compliance. This will go a long way in boosting the economic growth and development. Moreover, incentives should be provided with the tax payers to encourage them to pay their taxes. Tax authorities should offer tax education for its workforce and other related incentive.

Keywords: Indirect tax, Value Added Tax, Customs and Excise, Nigeria.

INTRODUCTION:

The paramount goal of the Nigerian tax structure should be to attain summit of economic growth and development. As such, the system should allow for stimulation of the economy and not stifle growth, as it is only through sustained economic growth that the potential ability to offer improvements in the well-being of Nigerians be achieved. The indirect tax system should therefore not discourage consumption level and the propensity to produce and sale more (Ajibola& Olowolaju, 2017). Indirect taxes should not be a burden, but should be applied proactively with other policy measures to stimulate economic development. The majority of African countries like Nigeria over the decade have experienced enormous contribution of tax income towards economic development. The needs of the society calls for huge funds which an individual or society cannot contribute alone (Anne-Marie, 2017 & Akwe, 2014).

The association amid indirect taxation and economic growth has been examined severally by different researchers. Not many have examined contribution of indirect tax on the economic growth (Akwe, 2014). In fact, progressive taxation affords policy makers the opportunity to pursue counter-cyclical fiscal policies which drives economic growth. So, indirect tax can only increase growth when enforcement and implementation procedures are effective. the most effective tax for developing countries is one that produces the largest amount revenue in the least costly and disproportionate manner(Bird,2003). VAT is an ideal indirect tax identified to suit the situation. The recent resolution that favours the gradual reduction and the subsequent elimination of sales taxes in favour of VAT as an instrument of indirect taxes in developing economies is worrisome. Emran and Stiglitz (2005) supported this statement by stating that indirect tax is built on a fragile result derived from

an incomplete model that relegates the presence of active informal sector.
The gap the research wants to fill is the fact that there may be an increase in GDP without any actual improvements in the standard of living of the people, and that culminates in economic growth without development (Tejvan, 2015 in Ofoegbu, Akwu& Oliver, 2016). Therefore, the first objective of this study was to evaluate the effect of indirect tax on the economic development of Nigeria using Human Development Index (HDI). The study is guided by these objectives: first, Nigerian Indirect tax through VAT has no significant and positive impact on human development index (HDI). Second, Nigerian Indirect tax through custom and exercise duties has no significant and positive impact on human development index (HDI).
The rest of this paper is structured into the following sections. Section two is the review of empirical literature, and section three deals with the study methodology. Section four provides the results of the study and discussion, while the conclusion and recommendations of the study are presented in section five.

LITERATURE REVIEW:

Conceptual frame work:

Tax is an enforced contribution of money to government pursuant to a defined authorized legislature (ICAN, 2006; CITN, 2002). Indirect tax is a contribution of money to government which the tax burden is passed from the producer to the last consumer and it yields very substantial revenue to government. Indirect tax is comprised of Value added tax and custom and exercise duties. So value added tax is a consumer tax imposed on the value added to goods and services as they advance during different phases of manufacture and delivery and to services as they are rendered. It is ultimately borne by the consumer who being registered for VAT purposed is unable to reclaim it (Jones, 2003; Nadine, Nadine & Michael, 2018). The above explanation implies that that there are intermediaries through which goods must pass before they reach the final consumer.

Human Development Index (HDI):

Human Development Index is one of the drivers of economic development and it measures long-term progress in three basic areas of human development namely: access to safe and healthy life, access to education, and a decent living standard (UNDP, 2014). Human Development Index (HDI) is a move towards a more holistic view of development which had previously focused more on per capita income.

Empirical studies:

Impact of taxation on the growth of the Nigerian economy from 1976-2006 was examined by Salami, Apelogun, Omidiya and Ojoye (2015) and Oladipupo &Ibadin (2015) using both simple and multiple linear regression analysis in the form of the ordinary least square method. The aim of the study was to determine the impact of the exogenous variables, PPT, CIT, CED and VAT on the endogenous variable, RGDP. They discovered that all the exogenous variables, including CED, had significant impact on the economy.
Ebiringa and Emeh (2012) and Inyiama &Ubesie (2016) investigated the impact of various taxes on the economic growth in Nigeria, using a time period of 1985-2011. Results show that customs and excise duties was negatively related to gross domestic product which implies that an inverse relationship existed between customs excise duties and economic growth in Nigeria.
Nwafor (2010) carried out a work on the effect on VAT on the Nigeria economy 1997 to 2007 using regression analysis. The empirical result of her Hypothesis shows that VAT has a significant positive effect on Nigeria economy as well as on the consumption patterns of Nigeria. Denis, (2010), investigated the relationship between Value Added Tax (VAT) and Gross Domestic Product (GDP) in Nigeria. The study finds that VAT is not effective as revenue earner; this implies that significant parts of GDP which represent aggregate national income as well as aggregate national expenditure are not collected as tax. Similarly, the impact of Value Added Tax on the economic growth of Nigeria was investigated by Adereti, Adesina & Sanni (2011), indicated a positive and significant correlation between VAT Revenue and GDP. The study further revealed that no causality ran from GDP to VAT Revenue at a lag of two years.

Theoretical framework:

This study is hinged on the Equality of Sacrifice Theory. It was propounded by Adam in the year 1776. The postulation of this theory is that persons should pay taxes in proportion to their individual capacity; which means that people with higher income should pay more than people with lower income (Inyiama &Ubesie (2016)). The theory can also be called Ability to pay principle.

METHODOLOGY:

Research design:
This study is ex post facto research design .Data used in this study are predominantly secondary. The study covered 17 years (2000-2016).

Research Variables:
The research variables were structured into dependent and independent variables. The dependent variable is a proxy measuring the economic development which in this study represents the human development Index. The independent variables of this study include value added tax (VAT) and custom and exercise duties (CED).

Method of Data Collection:
The study focused on the impact of indirect tax on the developmental process of Nigerian economy. Time series data will be used for the analysis. The secondary data will be obtained from such publications as World Bank Digest of Statistics, Central Bank of Nigeria statistical bulletin and Annual Abstract of Statistic of the Bureau of Statistics (NBS).

Model Specification:
The model is specified based on the theoretical and literature reviewed above, this is because it encompasses Macro-Economic variables that determine the economic development of Nigeria. These variables are the change in value added tax (VAT) and custom and exercise duties (CED). The model used for this study is a multiple regression model which is used to test the interrelationship between the explanatory variable and the explained variable. The model is thus shown below:
HID = B0 + B1 VAT + B2CED + e ……………….. (1)
Where:
HDI=Human Development Index which represents economic development in equation
VAT= Value Added Tax
CED= Custom and Exercise Duties
B0= is a constant, B1 and B2 are coefficients.
A priori expectation
The apriori expectation in indirect tax (VAT&CED) is positively related economic development.

Method of Data Analysis:
The simple regressions are used to estimate the parameters. The P-Value was used to explain the level of significance of the dependent variable and the explanatory variables. The alpha value was interpreted at 5% level of significance. As such, when the P-Value is less than 0.05, it means that the relationship * relevance at 5% level of significance, following this, the Null hypothesis was rejected and alternative hypothesis is accepted. However, if the P-Value is more than 0.05 at 5% level of significance, the null hypothesis is accepted while the alternate- hypothesis is rejected.

DATA ANALYSES AND INTERPRETATION:

In this section, the data collected for the purpose of the study will be analyzed and an interpretation of the results will also be presented. This will be achieved using the Statistical Package for Social Sciences (SPSS) version 21.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
LOGHID	17	.4000	.4800	.431765	.0194407
LOGVAT	17	10.7634	11.9047	11.490171	.3677639
LOGCED	17	9.0792	10.7918	10.129207	.6010420
Valid N (listwise)	17				

Source: Output from regression model

The descriptive statistics in Table 1.0 above shows the mean and standard deviation of the regression model. It also reveals the Range (Maximum- Minimum) values of the data being analyzed. The Value Added Tax and Customs and Excise Duties both have a mean of 11.490171and 10.129207respectively. The minimum-maximum value for the Value Added Tax, are 10.7634- 11.9047, while the Minimum- maximum value for the Customs and Excise Duties are 9.0792-.6010420.

Model Summary b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.830a	.801	.742	.0207738	.001	.006	2	14	.994	1.857
a. Predictors: (Constant), LOGCED, LOGVAT										
b. Dependent Variable: LOGHID										

The model helps us in testing the hypotheses that there is no significant relationship between Value Added Tax and economic development. The specification shows the ability of the explanatory variable in predicting the explained variable. From the table, the correlation coefficient (R) = 0.801 which shows that the variables under consideration here has a moderate relationship. The coefficient of multiple determination (R2 = 0.742) shows that 74.2% of the total variation in economic development can be explained by the predictor variables VAT and CED. F-test showing the P- values of 0.006 clearly indicates that the two variables under consideration have a significant difference in their mean at 5% level of significance. All the parameter estimates were found to be significant, which make the model a good fit and therefore, can be used to make forecast for economic development-indirect taxes trade-off. Therefore hypothesis one is rejected, thus there is a significant relationship between value added tax and human development index of Nigeria.

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	2	.000	.006	.994[a]
	Residual	.006	14	.000		
	Total	**.006**	**16**			
a. Predictors: (Constant), LogCED, Log VAT						
b. Dependent Variable: HDI						

The test of beta coefficients presented in table above shows the extent to which each independent variable determines economic development. As presented in table 3, (VAT1) value added tax coefficient of 0.281 was found to be positive at significant level of 0.001 and this indicates that VAT positively determines economic development.(CED2) custom and exercise duties of 0.098 was found to be positive at significant level of 0.005 and this indicates that CED positively determines economic development. This clearly demonstrates that all the independent variables significantly determine revenue collection performance and thus the regression equation was; HDI=.403 + 0.004VAT1 +0.001CED2 + e

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	.403	.365		1.105	.00288			
	LOGVAT	.004	.065	.070	.057	.00956	.028	.015	.015
	LOGCED	.001	.040	.042	-.034	.00973	.026	-.009	-.009
a. Dependent Variable: LOGHID									

Test of Hypothesis One: the Relationship between VAT and HDI

The result shows that a unit changes in the explanatory variables (indirect tax) as explained by value added tax (VAT), will yield to an increase of .004.The relationship can therefore be represented by the following equations: HDI=.403+.004. In line with the above equation, the relationship between indirect tax as proxied by value added tax and economic development as economic development as proxied by human development index is positive. Test of significance of independent Variable, shows that the relationship between indirect tax as proxied by value added tax and economic development as surrogated by economic development as proxied by human development index is significant at 0.05 level with a p-value of .00956. Therefore, the study shows that there is a positive and significant relationship between indirect tax as proxied by value added tax and economic development as proxied by human development. Therefore, H0 is rejected and H1 is accepted. A positive and significance relationship exists between VAT and HDI with The p-value of .00956 (1%) is less than α-value of 0.05(5%), thus, H0 is rejected and H1 is accepted. Oladipupo &Ibadin (2015) with similar findings opine that VAT exerts a positive and significant relationship on the economic growth driver. However in their study, they find that VAT of two-period lags showing a negative but significant relationship with RGDP.

Hypothesis two: the Relationship between CED and HDI

Table 4.2 also shows the regression result that tested hypothesis two. The result shows that a unit changes in the explanatory variables (indirect tax) as explained by Customs and Excise Duties (CED), will yield to an increase of .001 to economic development as proxied by human development index. The relationship can therefore be represented by the following equations: HDI=.403.001. In line with the above equation, the relationship between indirect tax as proxied by Customs and Excise Duties and economic development as proxied by human development index is positive.Test of significance of independent Variable, shows that the relationship between indirect tax as proxied by Customs and Excise Duties and economic development as surrogated by human development index is significant at 0.05 level with a p-value of .00973. Therefore, the study shows that there is a positive and significant relationship between indirect tax as proxied by Customs and Excise Duties and economic development as proxied by human development. Therefore, H0 is rejected and H1 is accepted. A positive and significance relationship exists between CED and HDI with The p-value of (0.956%) is less than α-value of 0.05(5%), thus, H0 is rejected and H1 is accepted. The research study by Apelogun, Omidiya and Ojoye (2015) and Oladipupo &Ibadin (2015) agree with this finding indicating in their study that customs and excise duty is important source revenue for the federal government of Nigeria. the result disagreed with the findings of Ebiringa and Emeh (2012) who discovered that customs and excise duties was negatively related to gross domestic product which implies that an inverse relationship existed between customs excise duties and economic growth in Nigeria.

CONCLUSION AND RECOMMENDATIONS

This study examined the extent to which revenue generated from taxes can enhance economic development in Nigeria using HDI. The study adopted human development index as proxy for economic development and the dependent variable, while value added tax and custom and exercise duties were independent variables. Data on the variables for the period 2000- 2016 was collected from the Central Bank of Nigeria Statistical Bulletin. The study employed OLS technique based on Windows SPSS 20 version to analysis the data. The findings from the statistical analysis of data revealed that indirect tax has a positive and statistically significant impact on economic development. Based on the above findings, the study recommendations were articulated:

i. Tax authorities in Nigeria should strengthen the indirect tax system especially taxes from VAT as it has been proven to be an important source of government revenue for sustainable development.
ii. The study also recommended that the tax authorities responsible for custom and exercise duties should upgrade the tax database and massive public enlightenment campaign among the citizenry as this will help to capture all transactions regarding import and export of goods and services and ensure voluntary tax compliance.

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