www.iiste.org

# Effect of Tax Policy on Unemployment in Nigeria

Alphonsus Sunday Anichebe Ph.D, ACA, ACTI Department of Accountancy, Chukwuemeka Odumegwu Ojukwu University, Igbariam (<u>as.anichebe@coou.edu.ng</u>)

# Abstract

This Study examined the effect of tax policy on unemployment in Nigeria, using aggregate time series data from 1981 to 2017. Relevant data was sourced from the Central Bank of Nigeria Statistical Bulletin and were estimated using the Ordinary Least Square technique. The results of the analysis showed that tax policy has significant long run impact on unemployment in Nigeria. Specifically Company income tax, Personal income tax and Customs and excise duty have inverse relationship with unemployment in Nigeria, while Value added tax showed positive relationship. Thus government should factor in tax policy when formulating policies that are meant to reduce unemployment in Nigeria. Based on findings of the study, the following recommendations were made; provision of adequate infrastructures by the government, elimination of multiple taxes as well as adjusting tax rates to encourage investments.

**Keywords:** Tax revenue, Unemployment, Company income tax, Value added tax, Personal income tax, Custom and Excise duty, Nigeria.

**DOI**: 10.7176/RJFA/10-12-13 **Publication date**:June 30<sup>th</sup> 2019

## **1.0 Introduction**

In Nigeria, taxation has been a major component of the policy measures of successive governments resulting in several amendments to the tax acts over the years. The amendments which form the basis of government's fiscal policy are intended to stabilize the economy.

Government desired to broaden the tax base, lower the tax rates on personal and corporate incomes, and reduce the tariffs on major raw materials imports. These were aimed at achieving lower levels of unemployment and inflation as well as encourage production through increased investment and consumption spending and the redressing of external disequilibrium.

Despite successive government's efforts at redressing structural imbalances in the economy, national unemployment rate has grown from 13.1 percent in 2000 to 19.7 percent in 2009 and 16.5 percent as at 2017.

The relatively high rates of company income and personal income taxes as well as the existence of multiple taxes may have driven up the cost of doing business thereby leading to a decline in the rate of employment. According to FRN (2010), through policies that encourage domestic and foreign investment there will be greater employment opportunities in Nigeria, which will help distribute the benefits of economic growth.

Recent Studies have turned to investigate the effect of tax policy on unemployment, for instance, Meyer (2018), Tvrdon (2011), Primo & Laporšek (2010), Bettendorf, Horst & Mooij (2007) and, Separovic & Zagreb (2009) all conducted in Europe found that a rise in the effective average corporate tax rate significantly increases unemployment levels. Other Studies, for instance, Pissarides (1998), found no significant relationship between Income taxes and unemployment. Parmentier (2006) found an ambiguous result on the impact of higher marginal tax rate on unemployment. Carroll & Prante (2012) and Kugler & Kugler (2001) carried out in the United States and the Latin America, respectively, found a positive relationship between taxes and unemployment

The results from these Studies are mixed. Given that increased demand for public services and the declining oil revenue in Nigeria have made it more important to raise taxes in efficient ways there is surely a need for more clarity about how different types of taxes influence unemployment in Nigeria. Also published works in Nigeria on the effect of tax policy on unemployment are few.

This study therefore seeks to evaluate the impact of tax policy on unemployment in Nigeria. The remainder of this paper is organised as follows; Section 2 discusses the literature on tax policy and unemployment. Section 3 lays out the analytical framework and econometric methodology. Section 4 reports the results while section 5 concludes.

## 2.0 Review of Related Literature

According to Chigbu, Akujiobi & Ebimobiwei (2012), the economic history of both developed and developing countries reveals that taxation is an important weapon or instrument in the hand of government, not only to generate revenue, but also to create fiscal goals that influence the direction of investment and taming the consumption and production of certain goods and services.

www.iiste.org

## 2.1 Objectives of the Nigerian Tax System

The Nigerian tax system is expected to contribute to the well-being of all Nigerians and taxes which are collected by government should directly impact on the lives of the citizens. This can be accomplished through proper and judicious utilisation of the revenues collected by government. These objectives include:

- To promote fiscal responsibility and accountability
- To facilitate economic growth and development.
- To provide the government with stable resources for the provision of public goods and services
- To address inequalities in income distribution
- To provide economic stabilisation
- To pursue fairness and equity
- To correct market failures or imperfections

## 2.2 Keynes General Theory of Employment

This theory was propounded by John Maynard Keynes, a British economist in 1936. His major work, entitled 'the general theory of employment, interest and money' was first published in 1936. According to Keynes, full employment is possible only when the level of total spending is adequate. If spending is inadequate, unemployment will result. Keynes rejected the classical contention that market economies automatically tend toward full employment; he focused attention on the level of demand or total spending as the critical determinant of an economy's health.

Keynes advocated the use of fiscal policy by central government to manage the level of aggregate demand to preserve full employment and avoid inflation. This involves the manipulation of government spending and taxation in order to guide the economy's performance. When unemployment exists, the federal government should increase its spending on goods and services (without increasing taxes). This will shift the aggregate demand curve to the right and increase the equilibrium level of real GDP and employment. A reduction in income taxes (without a reduction in government spending) will accomplish the same purpose because it will cause households to spend more at any given price level. When inflation exists, government spending should be reduced or taxes increased. These policies will reduce aggregate demand and thus reduce inflationary pressures.

Gbosi (2006), defined unemployment as a situation in which people who are willing to work at the prevailing wage rate are unable to find jobs. Unemployment occurs when a person who is actively searching for employment is unable to find work. Unemployment is often used as a measure of the health of the economy and the most cited measure of unemployment is the unemployment rate.

## Employment Effect of Personal Income tax

Many entrepreneurs start as self-employed individuals, who are subject to personal income taxes. Both the level and progressivity of Personal income taxes can influence the behaviour of potential entrepreneurs (OECD, 2002). Studies generally find that lower personal income taxes can increase rates of self employment. A highly progressive income tax structure can discourage entrepreneurs, who may be particularly sensitive to tax rates and schedules as income increases (Gentry & Hubbard, 2000).

According to Skinner (1989), payroll taxes in developed countries are thought to cause efficiency losses because workers vary their labour supply in response to the net wage rate. He views labour demand in developing countries as being consistent with a dual market: the modern or urban sector pays a higher wage to otherwise identical workers than the traditional or rural sector. As a consequence, rural workers migrate to cities as long as the expected value of getting a highly paid job exceeds their agricultural wage rate (Harris & Todaro, (1970). Higher urban wages cause a reduction in rural output (as migration to the cities occurs) and more unemployment. Hence taxes on labour in urban areas would have positive effects, since reducing the net urban wage, migration and urban unemployment could be reduced.

Employment Effect of Company Income Tax

The corporate tax affects the economy via a number of channels. First, it increases the cost of capital. This raises marginal production costs and through mark up pricing the output price. Accordingly the demand for domestically produced goods falls, which exerts a negative output effect on capital and labour demand (Bettendorf, Horst and Mooij, 2007). Secondly the higher cost of capital induces substitution from capital to labour. Corporate taxes can affect employment by reducing investment and production, and by reducing labour supply to the extent that firms pass on these taxes to employees in the form of lower wages (Cottarelli, 2012). Lower corporate tax rates generate more jobs. Changes in after-tax business profits are positively related to changes in the number of people employed. As after- tax profits increase showing reduction in tax rates, companies have more money to invest in growing their business or to distribute in dividends to investors who have financed business growth. When business grows, they hire more people; employment also grows. On the other hand, when after-tax, profit fall (increase in tax rates), business growth slows, and companies respond by hiring fewer people or eliminating jobs altogether. As a result employment growth slows down or begins to contract. (Myers, 2011) Any increase in the cost of capital including taxes can affect the labour market by

www.iiste.org

reducing output, by inducing factor substitution and by reducing labour productivity. (Eduardo & Farjardo, 2012). The higher cost of capital due to a corporate tax will increase production costs and lead to a fall in output, thereby decreasing the demand for both capital and labour. The corporate income tax may also result in some production moving from the formal to the informal sector, increasing demand for labour in the later, and at least partially countering the negative effect on employment in the formal sector. The overall effect on employment in the economy will depend on the relative labour intensities between the two sectors and the substitutability of labour and capital (Eduardo & Fajardo 2012).

## 2.3 Review of Empirical studies

Tvrdon (2011), focused on the characteristics of labour taxation and its effect on the labour market, the level of employment or unemployment especially. It uses a panel data regression model over the period 2000 to 2009, using the constant coefficient model, the fixed effect model and the Random effect model. Results show that an increase in the tax wedge decreases the employment rate. The study suggested that reducing the total tax wedge is more likely for the high income groups of the population, which consists of fraction of the total labour force.

Garcia & Sala (2006), provides a detailed analysis on the incidence of the tax structure on the labour market for 21 OECD countries over the period 1965 - 2003. They use the OLS estimation technique and the Lagrange multiplier serial correlation test. The study develops a model encompassing different wage bargaining systems and the incidence of different types of taxes. The results indicate that the payroll tax bias (PTB) plays a significant role in explaining unemployment in the continental, European countries but not in the Nordic or the Anglo Saxon ones. There is also no relationship between the incidence of the PTB and unemployment persistence, even though there is a positive one with respect to the level of the fiscal wedge.

Hagedorn, Mariovskii & Stetsenko (2007), investigate the relationship between taxes and unemployment using data from a number of OECD countries from 1996- 2000. It introduces ex ante heterogeneity between workers and two technology shocks, neutral and investment specific as the driving force into the basic mortensen pissarides search and matching model. Results show that countries with higher tax rates have higher aggregate productivity, lower skill premia, and higher unemployment rates among both high-and low- skilled worker.

Jukka & Hakan (2011), examine the impact of the Swedish tax policy on employment, using data on individuals, instead of countries. The study focused on the micro-economic part of research, drawing on both applied theory and micro-econometric evidence and employed the difference in differences method for the data analysis. Results show that the current Swedish tax system has fairly favourable effects on employment. The study suggested as follows; better targeting the earned income tax credit at families and low income workers, lowering the top marginal tax rates and maintaining the tax incentives for old workers.

Carroll & Prante (2012), uses the EY general equilibrium (EYGE) model of the US economy to evaluate the impact of the increase in the top tax rates in the long-run. The report finds that the higher marginal tax rates result in a smaller economy fewer jobs, less investment and lower wages.

Eduardo & Fajardo (2012), empirically explores the effects of payroll taxes, Value added taxes and corporate income taxes on a variety of labour market outcomes such as employment, unemployment, informality and wages. The study used national –level data on labour variables for 15 Latin American countries and adopted the OLS fixed effect estimation model. Results show that payroll taxes reduce employment and increase labour cost when their benefits are not valued by workers. Value added taxes increase informality and reduce skilled labour demand. Corporate income taxes may help reduce informality, especially among low education workers but when tax enforcement capabilities are strong may reduce labour participation and employment of medium – and high-education workers.

Bettendorf, Horst & Mooij (2007), analyse the impact of corporate taxes on structural unemployment in a general equilibrium framework. It adopts a union bargaining model to explain equilibrium unemployment on the basis of several institutional variables. The bargaining framework is embedded in an applied general equilibrium model for the European Union that is designed for analyzing corporate tax policies. This so called CORTAX model encompasses various distortions of corporate taxation, including the marginal investment distortion, international spillovers from foreign direct investments and profits shifting by multinationals and distortions in the financial structures of companies. Results show that although the effects of corporate taxation are typically larger for most European countries under plausible parameters, especially under strong international spillovers.

Parmentier (2006), analyses the effect of the marginal tax rate on unemployment and economic efficiency in a matching model with homogeneous agents where wages and working hours are bargained over. Results show that the theoretical impact of a higher marginal tax rate on unemployment is ambiguous whatever the instantaneous utility in unemployment that is either fixed or perfectly indexed on net wages.

Separovic & Zagreb (2009), examine the influence of the tax wedge on employment in OECD countries in comparison with Croatia. The study used descriptive, discriminate and cluster analysis with figures from OECD

www.iiste.org

countries. Results show that Croatia has high tax wedge which has negative effects on employment and is partly responsible for the high unemployment. The study recommended that Croatian government should work towards reduction of the high tax wedge, by increasing personal allowances, reducing income tax, reducing contributions by employers and employees.

Bassanini & Duval (2006), use cross-country/time series data from 21 OECD countries over the period 1982 to 2003 to explore the impact of policies and institutions on employment of OECD countries in the past decades. They employ the reduced-form unemployment equations, consistent with standard wage setting/price setting models. Results show that in the "average" OECD country, high and long lasting unemployment benefits, high tax wedges and stringent anti-competitive product market regulation are found to increase aggregate unemployment.

Primo & Laporšek (2010), assess the characteristics of labour taxation for five different groups of workers and labour market performance (in terms of employment and unemployment rate) in the EU and to examine whether tax wedge affects employment growth in the EU. The descriptive empirical estimates show that the level of labour taxation varies greatly across EU Member States, by which the tax wedge tends to be higher among new member States (excluding Cyprus and Malta). Furthermore, the panel regression analyses confirm statistically significant negative relationship between tax wedge and employment growth in the EU as a whole.

Zirgulis & Sarapovas (2017), study the effect of corporate taxation on unemployment utilizing a dynamic panel covering 41 countries over 11 years. The study investigates how changes in the corporate income tax affect unemployment. The study employs system general method of moments (GMM) due to peculiarities of the data set and the endogeneity issues present in the research problem. Findings show that a rise in the effective average corporate tax rate significantly increases the unemployment levels.

Meyer (2018) studies the impact that lowering the corporate income tax rate can have on unemployment levels in a country, using an empirical study of 15 European Union member countries, mainly due to the availability of data and the unique mobility of capital. The study utilises the ordinary least square regression equation. Findings indicate a direct positive relationship between the tax rate and unemployment rates.

Kugler & kugler (2001), investigate the effect of higher payroll taxes on employment and wages. They use a panel of manufacturing plants from Colombia and exploit the time series and cross-section variations in payroll taxes over the 1980s and 1990s. The study employed the basic differences and differences- in – differences (or differences – in – differences- in – differences when both production and non production workers are included). Results show that a 10 percent increase in payroll taxes lowers employment by about 4 percent.

Pissarides (1998), examines the effects of employment tax cuts on unemployment and wages. Different models are used to evaluate the impact of policy by simulating the effect of tax changes in four partial equilibrium models: A competitive model, a Union model, a search model and an efficiency model. In general, tax cuts have smaller employment effects in the competitive model and larger one in the efficiency wage model (both of which imply that the tax structure is irrelevant).

## 3.0 Methodology

3.1 Research Design

The time serial ex-post-facto and analytical research designs were used to investigate the relationship between tax policy and unemployment in Nigeria.

## 3.2 Data and Variable Description

This study was based on secondary data. A sample of annual observations on time series covering the period from 1981 to 2017 was employed. Series are in current domestic currency. Most series were collected from the Central Bank of Nigeria statistical bulletin (various editions) while the others were obtained from the Bureau of National statistics (abstract of statistics), and the World Bank (International Development Indicators).

## 3.3 Model Specification

The model for the study is as follows; UNE = f(INV, TRP, PIT, CIT, CED, VAT)The equation from the model becomes  $LnUNE = a + a_1LnINV_t + a_2LnTRP_t + a_3Ln PIT_t + a_4Ln CIT_t$   $+ a_5LnCED + a_6LnVAT_t + \textbf{C}_t$ Where: UNE = Unemployment rate INV = Investment ratio TRP = Trade openness PIT = Average Personal income tax rate

www.iiste.org

CIT = Average Company income tax rate CED= Custom and Excise duty VAT= Value Added tax  $\mathbf{E}_{t}$  = Random error term

a = Constant

 $a_1$ ,  $a_2$ ,  $a_3$ ,  $a_4$ ,  $a_5$  and  $a_6$  are the coefficients of the regression equation.

The specification of the econometric model adopted in this study, builds on theoretical propositions.

## 3.4. Estimation Procedures

- The characteristics of the time series data used in the analysis are first evaluated. The summary statistics of the various variables are estimated. The statistical properties of the variables provide information about the means, medians, standard deviations, skewness, kurtosis and jarque-Bera statistics of each variable. Standard deviation measures dispersion in the series. Skewness measures asymmetry of the distribution of the series around its mean and it is expected to be zero for normal distribution. Kurtosis measures the peakedness or flatness of the distribution of the series while Jarque-Bera is a test statistic for testing whether the series is normally distributed. The correlation analysis shows the extent of linear relationship that exist among the variables employed in the study. Thereafter, the stationarity properties of the employed data are examined.
- linear combination of two non-stationary series may be stationary. The existence of a stationary linear combination from the non-stationary time series is referred to as co integration and it can be interpreted as a long-run equilibrium relationship among the variables. Given this consideration, Maximum Eigenvalue test of Johansen Co integration test is carried out based on the assumption of linear deterministic trend.
- The long run analysis is estimated using Ordinary Least Square (OLS) estimation technique.

# 4.0 Results and Discussion

4.1 Statistical Properties of the Variables

The characteristics of the time series data used in the analysis are presented in Table 4.1. The variables are systematically distributed. The outcomes of each variable's mean, median as well as values for their maximum and minimum suggest that the variables are well behaved. The mean values of all the variables employed are not too different from their respective median values. This is an indication of absence of excessive outliers and stability of the variables employed, which are essential for the analyses carried out in this study. The value of the standard deviation of each of the variables is a further proof of the fact that the distribution of the variables is approaching normal distribution. In addition, the skewness, kurtosis and standard deviation statistics show that the variables are not unnecessarily large.

The probability values of the Jarque-Bera Statistics as presented in the table show that LUNE, LTRP, LINV, LPIT, LCIT, LCED and VAT are normally distributed.

Table 4. 1. Summary Statistics of the Variables Employed							
	CED	CIT	INV	PIT	TRP	UNE	VAT
Mean	19.44214	11.38276	12.67351	9.404270	30.27514	8.448378	7.834297
Median	19.02200	9.772000	11.90000	9.242000	31.80000	6.400000	8.742000
Maximum	38.34800	23.29300	35.22000	21.54900	58.92000	19.70000	20.31500
Minimum	6.329000	4.383000	5.460000	0.632000	7.360000	1.900000	0.000000
Std. Dev.	10.40073	5.093946	6.236283	5.187300	12.75809	4.936203	6.510074
Skewness	0.313892	1.079883	2.084213	0.428617	-0.052904	0.515984	-0.024978
Kurtosis	1.787723	3.262743	7.907898	2.943320	2.323567	2.024243	1.670117
Jarque-Bera	2.873245	7.297672	63.92248	1.137847	0.722667	3.109634	2.730422
Probability	0.237729	0.026021	0.000000	0.566135	0.696747	0.211228	0.255327
Observations	37	37	37	37	37	37	37

Source: Author's computation

# 4.3. Correlation Analysis

The correlation matrix of the variables employed in this study is presented in Table 4.2. The table presented all possible bivariate combinations of all the employed variables. The correlation analysis also gives insight into understanding the econometric results and other analyses that are later carried out in this study. The result as presented in Table 4.2 showed that most of the variables employed are highly correlated. The directions of the correlation for some are positive, while negative for others.

1 able 4.5 C	Table 4.5 Conclution Mathees of the Variables Employed						
	CED	CIT	INV	PIT	TRP	UNE	VAT
CED	1.000000	-0.399171	0.033613	-0.273110	0.010130	-0.492609	-0.301546
CIT	-0.399171	1.000000	-0.060928	0.761376	-0.123497	0.248383	0.730007
INV	0.033613	-0.060928	1.000000	-0.266905	-0.577392	-0.331538	-0.383211
PIT	-0.273110	0.761376	-0.266905	1.000000	-0.131625	0.211363	0.546233
TRP	0.010130	-0.123497	-0.577392	-0.131625	1.000000	0.117581	0.430785
UNE	-0.492609	0.248383	-0.331538	0.211363	0.117581	1.000000	0.474487
VAT	-0.301546	0.730007	-0.383211	0.546233	0.430785	0.474487	1.000000

## Table 4.3 Correlation Matrices of the Variables Employed

Source: Author's Computation

## 4.4 Unit Root/ Stationarity Test

The variables employed in the analysis are tested for stationarity using the Augmented Dickey-Fuller test to determine whether they are stationary or non-stationary series. The tested null hypothesis is the presence of a unit root. The results of the unit root tests as presented in Table 4.4 indicated that LTRP, LPIT, UNE, LCIT, LCED and LVAT are stationary at after first difference. This implies that they are integrated of order one. The other variable namely, LINV is stationary at level, indicating that is integrated of order zero. Table 4.4. The Unit Root Test Results for the Selected Variables

Variables		Augmented Dickey-Fuller test	Conclusion	
LINV	Level	-5.144784	I(0)	
LCIT	Level	0.423196	I(1)	
	1 <sup>st</sup> Difference	1 <sup>st</sup> Difference -5.635455		
LCED	Level	I -1.159127 I(1)		
	1 <sup>st</sup> Difference	-5.185894		
LPIT	Level	-0.285587	I(1)	
	1 <sup>st</sup> Difference	-6.551708		
LTRP	Level	-0.758316	I(1)	
	1 <sup>st</sup> Difference	-7.921198		
UNE	Level	-0.687929	I(1)	
	1 <sup>st</sup> Difference	-5.587362		
LVAT	Level	0.358688	I(1)	
	1 <sup>st</sup> Difference	-4.994652		

Source: Author's Computation

# 4.5. Tests for Co-integration

The UNE model, which is specified to examine the relationship between tax policy and unemployment in Nigeria, is tested for the null hypothesis of no co-integration assuming linear deterministic trend. Comprised in the UNE model are UNE, LINV, LTRP, LVAT, LPIT, LCIT and LCED. Table 4.5 illustrates the outcome of the co-integration test for the UNE model. There are three co-integrating relations among the variables in the UNE model as indicated by the Max-Eigen Statistic. This implies that there are long run relations among the variables employed in the UNE model.

Table 4.5. Test of Co-integration among UNE, LINV, LTRP, LVAT, LPIT, LCIT and LCED

	Likelihood	5 Percent	1 Percent	Hypothesized
Eigenvalue	Ratio	Critical Value	Critical Value	No. of CE(s)
0.704358	152.5912	124.24	133.57	None **
0.692340	109.9400	94.15	103.18	At most 1 **
0.574098	68.68339	68.52	76.07	At most 2 *
0.425283	38.80929	47.21	54.46	At most 3
0.292822	19.42356	29.68	35.65	At most 4
0.170857	7.297015	15.41	20.04	At most 5
0.020902	0.739333	3.76	6.65	At most 6

\*(\*\*) denotes rejection of the hypothesis at 5%(1%) significance level

L.R. test indicates 3 cointegrating equation(s) at 5% significance level

4.6. Results of the Estimated Model

DOI: 10.7176/RJFA

Table 4.6 Estimated Results o	f the UNE Model			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	27.28846	4.763663	5.728463	0.0000
INV	-0.288332	0.131096	-2.199397	0.0357
TRP	-0.259851	0.080111	-3.243625	0.0029
PIT	-0.131555	0.195813	-0.671840	0.5068
CIT	-0.721341	0.282928	-2.549558	0.0161
CED	-0.226368	0.061087	-3.705680	0.0009
VAT	0.833544	0.204743	4.071166	0.0003
R-squared	0.584253	Mean dependent var		8.448378
Adjusted R-squared	0.501104	S.D. dependent var	4.936	
S.E. of regression	3.486567	Akaike info criterion	5.50437	
Sum squared resid	364.6845	Schwarz criterion	5.8091	
Log likelihood	-94.83085	F-statistic		7.026554
Durbin-Watson stat	1.980058	Prob(F-statistic) 0.		

The outcome of the estimation is presented in Table 4.6 above. The result show that LINV, LTRP, LPIT, LCIT and LCED exert negative influence on the UNE, while LVAT has positive impact on UNE. All the explanatory variables included in the model are significant except LPIT.

About the overall significance of the UNE model, the Adjusted  $R^2$  coefficient (0.511) suggests that about 50 per cent of the total variations in UNE are explained by the variables included in the model, which are LINV, LTRP, LVAT, LPIT, LCIT and LCED. Similarly, the F-statistics shows that the UNE model is statistically significant.

## Discussions

i. Findings of the study indicated a positive relationship between Value added tax and Unemployment. The impact of Value added tax on unemployment is also significant. This result means that increases in Value added tax worsen the unemployment rate. In theory, the burden of Value added tax is supposed to rest on the final consumers. It is the final consumer that pays the tax. But often, the incidence of the tax depends on the elasticity of demand and supply of the goods in question. Under competition and where demand is elastic, it will be difficult to shift the burden of the tax to the final consumer in form of higher prices. The informal economy and tax evasion is prevalent in developing countries like Nigeria. This makes it difficult for some companies to fully shift the tax burden to the consumer. In other words the producers end up bearing the burden. This results in higher cost of production and adverse effect on employment. Therefore increases in Value added tax revenue leads to increase in the rate of unemployment. The steady rise in the amount of revenue derived from Value added tax annually may have contributed to the rising unemployment rate in the country.

Ii The results of the analysis also indicated a negative relationship between the Company income tax, Personal income tax, Custom and excise duty and Unemployment Rate. This means that as these taxes increase, unemployment falls. The effects of Personal (Labour) Income taxes on employment (labour Demand) depend on whether gross wages are affected or not by the tax. If an income tax increase is completely absorbed by the workers or an increase in company income tax borne by the buyers, labour demand and unemployment will not be affected directly (Eduardo & Farjado 2012).

## 5.0 Conclusion and Recommendations.

#### 5.1.Conclusion

The major objective of the study was to examine the effect of tax policy on unemployment in Nigeria. The study covered the period 1981 to 2017 and used aggregate time series data to examine the effect of tax policy on unemployment.

The analysis carried out in the study began with the summary statistics of the variables employed. It also presented the correlation analysis of the employed variables. Thereafter, co-integration relations among the variables were verified using Johansen co-integration test. The specified model was estimated through the ordinary least square estimation technique to ascertain the extent of the impact of the independent variables on the dependent variable. The results revealed that Personal income tax, Company income tax and Custom and excise duty have inverse relationship with unemployment rate in Nigeria, with Value added tax showing a positive relationship.

The study therefore concludes that tax policy has significant long run relationship with unemployment in Nigeria and therefore imperious for the government to factor in tax policy when formulating policies that are meant to reduce unemployment in the Nigerian economy.

www.iiste.org

## 5.2 Recommendations

#### -Provision of Infrastructures

There are peculiar challenges in the Nigerian investment environment, such as infrastructure which may negatively impact investment decisions as the cost of doing business in Nigeria, may be significantly higher than it would have been in countries with better infrastructure.

Through policies that encourage domestic and foreign investment, there will be greater employment opportunities in Nigeria which will help distribute the benefits of economic growth. The Tax Strategy should therefore encourage investment that creates greater employment opportunities.

# - Adjusting Tax Rates to Encourage Investment

The strategy of Government will be to reduce the rate of Companies Income Tax to 20% or less and to decrease the top rate of Personal Income Tax to about 17.5% of taxable income. Decreasing income tax rates, will encourage investments, create greater employment opportunities and increase tax compliance.

#### -Import and Excise Duties

In order to reduce costs of Nigerian manufacturers, and make their products more competitive, government should reduce import duties on raw materials to zero percent (where this would not conflict with international / regional obligations, such as ECOWAS commitments). This will encourage the production of both intermediate and finished goods and develop the Nigerian economy.

# -Elimination of Multiple Taxes

Streamlining and harmonising taxes across the federation would increase Nigeria's productive output. Strict enforcement of the taxes and levies approved list for collection Act No 21 of 1998 is recommended as well as the abolition of the law on withholding tax on dividend, interests etc.

## REFERENCES

- Bassanini, A & Duval, R. (2006). Employment Patterns in OECD Countries: Reassessing the Role of Policies and Institutions. OECD Economics Department Working Papers, No. 486.
- Bettendorf. L. H. J, Horst, A.V. & Mooij, R. A.(2007). Corporate Tax Policy and Unemployment in Europe. An Applied General Equilibrium Analysis. Tinbergen Institute Discussion Paper. Ti 2007- 056/2.
- Carrol, R. & Prante, G. (2012). Long –run Macroeconomic Impact of Increasing Tax Rates on High-income Tax Payers in 2013. Ernst and Young LLP. July.
- Chigbu. EE, Akujiobi, L.E. and Ebimobowei, A. (2012). An Empirical Study on The Causality between Economic Growth and Taxation in Nigeria. Current Research Journal of Economic Theory 4(2):29-38.
- Cottarelli, C. (2012). Fiscal Policy and Employment in advanced and Emerging Economies. International Monetary Fund (IMF) Working Paper. June 15
- Eduardo, L. & Fajardo, J.(2012). Employment and Taxes in Latin America: An Empirical study of the Effects of Payroll, Corporate Income and Value Added Taxes on Labour Outcomes. Inter- American development Bank (IDB) Working Paper series No. IDB- WP 334. Pp 1 -67
- FRN (2010).National Tax Policy document. Abuja. Federal Government Printer
- Garcia, J. R., & Sala, H.(2006). The Tax System Incidence on Unemployment: A Country-Specific Analysis for the OECD Economies. The Institute for the study of Labour, Discussion papers No 2226. Pp 1-28.
- Gbosi, A.N (2006). Modern Labour Economics and Policy Analysis. Abakaliki. Park Publishers. PP 56 -92.
- Gentry, W.M. & Hubbard, R.G.(2004). The Effects of Progressive Income Taxation on Job Turnover. Journal of Public Economics 88(2004) 2301 2322.
- Hagedorn, M., Mariovskii, I. & Stetsenko, S. (2007). Taxation and Unemployment in Models with Heterogeneous Workers. Institute for Empirical Research (IEW), University of Zurich. Pp 1-61.
- Harris, J. R & Todaro, M.P. (1970). Migration, Unemployment and Development: A Two-Sector Analysis, the American Economic Review, pp 126 142.
- Jukka, P. & Hakan, S.(2011). Tax Policy and Employment: How Does The Swedish Tax System Fare? CESIFO Working Paper No, 3355 Pp 1-59.
- Kugler, A, & kugler, M.(2001). Effects of Payroll Taxes on Employment and Wages:Evidence From The Colombian Social Security Reform. Centre for research on economic development and policy reform;Working paper No 134.
- Meyer, K. (2018).Effect of Corporate Income Taxation on Unemployment Levels in the European Union, The Park Place Economist: Vol. 26, issue 1/16, pp 88-96
- Myers, J. (2011). The Economic Impact of Corporate Tax Rate Reductions, the Canadian Manufacturers and exporters (CME) Intelligence, <u>www.cme.mec.ca</u>
- OECD (2002).Entrepreneurship and Growth: Tax Issues. Directorate for Science,Technology and Industry. Organization for economic cooperation and Development, Feb 2012.
- Parmentier, A (2006). The Effects of the Marginal Tax Rate in a Matching Model With Endogenous Labour Supply. Department de sciences economiques de l'Universite Catholique de Louvain. Discussion paper

www.iiste.org

2006-11.

- Pissarides, C. (1998). The Impact of Employment Tax Cuts on Unemployment And Wages: The Role of Unemployment benefits and tax structure. European Economic Review 42 (1998) 155-183.
- Primo, D & Laporšek, S. (2010). Labour Taxation and Its Impact on Employment Growth. Managing Global Transitions 10 (3): 301–318
- Separovic, A. & Zagreb, Z. (2009). The Influence of The Tax Wedge on Unemployment in OECD Countries in Comparison With Croatia. Financial Theory and Practice 33 (4)449 463.
- Skinnner, J (1989). Do Taxes Matter? A Review of the Effect of Taxation on Economic Behaviour and output. Policy, Planning and Research Working. Papers (World Bank) No. WPS 48.
- Tvrdon, M (2011).Relationship Between Taxation of Labour and Employment in the European Union: Mathematical Simulation. International Journal of Mathematics and Computers in Simulation. Issue 3, Vol.5 Pp 274-281
- Zirgulis, A. & Šarapovas, T.(2017). Impact of Corporate Taxation on Unemployment. Journal of Business Economics and Management, Volume 18(3): 412–426