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Each issue of the journal is designed to inform researchers, practising managers and policy makers on current and emerging developments in the social and management sciences and their practical applications to problems of the global world. Papers are carefully selected to provide readers with analytical, application-oriented approaches to managerial problems.

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## **The role of Inflation rate on Economic Growth and Unemployment in Nigeria**

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### **Abstract**

Over the years, several studies have been carried out to establish the relationship between economic growth and unemployment but limited attention was given to the role of inflation on the relationship between economic growth and unemployment. Therefore, this study investigates the role of inflation on economic and unemployment in Nigeria over the period 1981 to 2018 through the application of Auto-regression Distributed Lag (ARDL) model. The ARDL Bounds test to co-integration revealed that unemployment, economic growth, inflation rate and interaction term do not have long run relationship. Furthermore, the result of the short run ARDL estimate revealed that economic growth has significant positive relationship with unemployment when economic growth interacts with inflation rate over the period under study and the relationship is significant only at maximum and mean level of inflation rate. Based on the result, the study recommends that government should formulate policies to control the level of inflation rate to a minimal level.

**Keywords:** Economic Growth, Inflation, Interaction term and Unemployment.

### **Introduction**

The relationship between economic growth and unemployment is regarded as a matter of concern among economists, policy makers and economic managers. This is because economic growth and unemployment are the vital indicators that show a broad picture of whether an economy is developed or not (Sadiku, Ibraimi & Sadiku, 2014). This relationship was initially investigated by Okun in 1962 which is known as Okun's law. Okun (1962) discovered a negative relationship between economic growth and unemployment.

Over the years, both underdeveloped and developed nations have experience unemployment problems, but the developed nations have been controlling their unemployment rate significantly (Jibir, Bappayaya & Babayo 2015). In 2016, over 200 million people were estimated to be unemployed in the world (World Bank Development Indicators, 2016). The highest unemployment rate in the world in 2016 was recorded in an African country particularly Djibouti which amounted to 54 per cent, and the lowest was recorded in the Middle East particularly in Qatar 0.2 percent while Nigeria recorded 33.1 percent (National Bureau of Statistic (NBS) 2016).

Globally, it is estimated that Gross Domestic Product (GDP) in 2016 amounted to 75 trillion U.S dollars, with the United State having the highest which is about 18,624,575 million U.S dollars and the lowest GDP was recorded in Tuvalu which is about 34 million U.S dollars while Nigeria recorded about 404.7 billion U.S dollars (World Bank, Development Indicators, 2016).

In Nigeria, economic data have shown that both output and unemployment rate are decreasing at some point and increasing at another point (NBS, 2016). A closer look at Nigerian's GDP data would suggest that GDP is actually increasing but the number of people that are out of job is also increasing which is contrary to economic theory (Okun's law). The Okun's law suggests that economic growth should give a kind of relief by way of reducing the level of unemployment. Hence, this study investigates the relationship between economic growth and unemployment when there is an interaction between economic growth and inflation rate over the period under study

### **Literature Review**

The Nigerian National Bureau of Statistics defined unemployment as the proportion of those in the labour force who are actively looking for work but could not find work for less than forty hours in a week (National Bureau of Statistic, 2016). The classical economist considered unemployment as the excess supply of labour over the demand for labour which is caused by adjustment in real wage. According to the Keynesian, unemployment is due to lack of effective demand for goods and services which people could have been employed to produce. For economic growth, Aigbokhan (1995), views it as a situation where by the average value of goods produced per individual increase over a long time period which is normally measured on annual basis. In addition, Jhingan (2001), views economic growth to be an improvement in average income over an extended time period.

However, several studies have been carried out to investigate the relationship between economic growth and unemployment both in Nigeria and other countries. Soyulu, Cakmak and Okur (2017) focused their study in Eastern European Countries to investigate the relationship between economic growth and unemployment using a time frame of 1992-2014. Test for stationarity was carried out and the outcome of the test showed that all the variables are I(1). The study used Panel Johansen Co-integration test and Pooled OLS Panel Ordinary Least Square. The result revealed that a 1% rise in GDP will lead to 0.08% increase in unemployment rate for Eastern European Countries.

Also Suleiman, Kassim and Hemed (2017) in their study in Tanzania tried to look at the impact of unemployment on economic growth using a time frame of 1991-2015. The study applied Ordinary Least Square (OLS) to estimate the parameters and the result revealed that unemployment rate, labour force and stock capital formation all have a direct relationship with RGDP. The major problem with their study is that the time period used is too small to make any meaningful analysis.



Segun, Ajala, Loretta and David (2019) in their study in Nigeria investigated the nexus between unemployment and economic growth using a time period of 1986 to 2018 through the application of Auto Regressive Distributed Lag (ARDL) Model. The result revealed that the variables are co-integrated. It was also found that unemployment has an inverse relationship with economic growth both in the short run and in the long run

Seth, John and Dalhatu (2018) in their study in Nigeria examined the relationship between unemployment and economic growth in Nigeria using a time frame of 1986 to 2015. The study applies ARDL model for the estimation. The result revealed that in the short-run, unemployment significantly and positively affects economic growth in Nigeria. Finding also showed that there is no long- run relationship between unemployment rate and Economic growth in Nigeria

Furthermore, Chinedu (2017) examined the determinants of the rate of unemployment in Nigeria using a time frame of 1980 to 2016. The variables considered had unemployment rate as a regress and while Real Gross Domestic Product, Government Expenditure, Inflation rate and Population were the regressors. The study applied Ordinary Least Square (OLS) technique to estimate the model. The OLS result revealed that Government expenditure and population growth are positively related to unemployment rate while inflation rate is negatively related to unemployment rate.

Darma and Onimisi (2017) in their study critically assessed the relationship between unemployment, economic growth and inflation using a time frame of 1980-2014. The variables considered had economic growth as a regress while unemployment rate and inflation were the regressors. The study applied unit root test and the result revealed that the variables are  $I(0)$  and  $I(1)$ . They resolved to use ARDL model. Findings revealed that the variables do not have long run association. In the short run unemployment and inflation have significant negative relationship with unemployment.

Imoisi, Amba and Okon (2017) investigated the impact of unemployment on economic growth in Nigeria over the period of 1980-2016 using OLS technique. Findings revealed that population and unemployment rate have a negative relationship with Real Gross Domestic product while labour force and minimum wage have a positive relationship with Real Gross Domestic product.

Akeju and Olanipekun (2014) accessed the relationship between economic growth and unemployment over the period of 1980-2012. The study applied Johansen co-integration test and Error Correction Model (ECM). The co-integration test result revealed that there is a long run relationship between unemployment rate and output growth in Nigeria. While the ECM result showed that unemployment rate has a positive relationship with economic growth both in the short run and long run.

However, the above previous studies have attempted to investigate the relationship between economic-growth, unemployment and inflation rate without looking at the role of inflation rate on the relationship between economic growth and unemployment. Therefore, this study

would contribute to knowledge because it would investigate the role of inflation rate on the relationship between economic growth and unemployment in Nigeria.

**Materials and Methods**

This study used time series data which were obtain from the Central Bank of Nigeria (CBN) statistical bulletins 2018 and the National Bureau of Statistic (NBS) statistical report 2018

**Theoretical Framework**

This study used the Okun’s Law Difference Model as the theoretical framework to examine the role of inflation rate on the relationship between economic growth and unemployment in Nigeria. The Okun’s Law Difference Model is an empirical observation on the relationship between changes in unemployment rate and changes in Real Gross Domestic Product. The Okun’s law difference model shows that one percent increases in real Gross Domestic Product is associated with 0.3 percentage points decrease in the unemployment rate. The Okun’s Law Difference Model is shown in equation 3.1 as follows:

$$U_t = \beta_0 + \beta_1 RGDP_t + \varepsilon_t \dots \dots \dots (1)$$

**Model Specification**

This study used Okun’s Law standard difference model adopted from the work of Akeju and Olanipekun (2014). The model is shown in equation 3.2 as follows:

$$UNER_t = \gamma_0 + \gamma_1 RGDR_t + \varepsilon_t \dots \dots \dots (2)$$

Where: UNER=Aggregate Unemployment Rate, RGDP= Real Gross Domestic Product,  $\varepsilon_t$  = is the Error term, t= time period. On apriori expectation,  $\gamma_0 > 0$ ,  $\gamma_1 < 0$ .

The above model is adopted to include inflation rate which is traditionally known to impact on unemployment as shown in equation 3.3 as follows:

$$UNER_t = \gamma_0 + \gamma_1 RGDR_t + \gamma_2 INFR_t + \varepsilon_t \dots \dots \dots (3)$$

To achieve the objective of this study, interaction term was added to the model in equation 3.3 which gave rise to a new model for the study as shown in equation 3.4 as follows:

$$UNER_t = \emptyset_0 + \emptyset_1 RGDR_t + \emptyset_2 INFR_t + \emptyset_3 (RGDR_t \times INFR_t) + \varepsilon_t \dots \dots (4)$$

Where: UNER=Aggregate Unemployment Rate (a proxy for unemployment), RGDP= Real Gross Domestic Product (a proxy for economic growth), INFR= Inflation rate, (RGDP<sub>t</sub>×INFR<sub>t</sub>)=The interaction term which captured the impact of economic growth on unemployment conditional on the role of inflation rate,  $\varepsilon_t$  = is the Error term, t= time period. On apriori expectation,  $\emptyset_0 > 0$ ,  $\emptyset_1, \emptyset_2$  and  $\emptyset_3 < 0$ .

Furthermore, Brambor, Clark and Golder (2005) stated that researchers should avoid interpreting the interaction terms based on a single constant effect but the interpretation should be based on multiple marginal effects depending on the variables upon which the interaction is based. And the significant of the marginal effect can only be concluded by using new standard errors.

Thus, the marginal effect of unemployment and economic growth relationship when economic growth (RGDP) interacts with inflation rate is shown in equation 5 as follows:



**Table 1. Descriptive statistic of the variables**

	UNER	RGDP	INFR	RGDPxINFR
Mean	13.04211	33725.22	19.32421	539475.2
Median	12.1	23068.85	12.55	529066.6
Maximum	42.9	69810.02	72.84	1482527
Minimum	1.9	13779.26	5.38	87161.29
Std. Dev.	10.78787	19578.1	17.25567	353243.4
Skewness	1.059667	0.734406	1.742366	0.698476
Kurtosis	3.321747	1.996529	4.837589	2.765597
Jarque-Bera	7.275577	5.010238	24.57347	3.176832
Probability	0.02631	0.081666	0.000005	0.204249
Sum	495.6	1281558	734.32	20500058
Sum Sq. Dev.	4305.993	1.42E+10	11017.05	4.62E+12
Observations	38	38	38	38

Source: Author's Computation, 2020 using Eview 9

### Unit Root Test

The unit root test presented in Table 2 revealed that the variables are of mixed order of integration. UNER, RGDP, RGDPxINFR are not stationary at level but they became stationary after taking the first difference at 5% significant level. While inflation rate was found to be stationary at level using 5% significant level

**Table 2. Summary of Unit Roots Test (Augmented Dickey-Fuller Test) At Trend and Intercept**

Variables	Test statistics at level	5% critical value at level	P-value	Test statistics at first difference	5% critical value at first difference	p-value	Order of integration
			at level			at first difference	
Log(Uner)	-2.1348	-3.536601	0.5102	-6.80618	-3.540328	0	I(1)
log(RGD)	-1.504	-3.544284	0.8091	-3.54033	-3.319512	0.0493	I(1)
Infr	-3.9623	-3.540328	0.0193	-	-	-	I(0)
Log (rgdp*infr)	-3.4617	-3.536601	0.0587	-6.41492	-3.544284	0	I(1)

Source: Author's Computation, 2020 using Eview 9

### Autoregressive Distributed Lags (ARDL) Short-Run Estimate

Considering that the variables used for this paper are of mixed order of integration as shown by the unit root test in Table 2, the study employed ARDL Model as formulated by Pesaran and Shin (2001). This method was employed because it is applicable irrespective of whether the repressors in the model are purely I(0) or I(1) or mixed. To estimate the variables in the model, the study selected ARDL (1, 1, 1, 1,1) and the result is presented in Table 3 below.

**Table 3: ARDL Short-Run Estimate**

Dependent Variable: LOG(UNER)		Selected Model: ARDL(1, 1, 1, 1,1)			
Variable	Coefficient	Std.Error	t-Statistic	Prob.*	Remark
LOG(UNER(-1))	0.645227	0.137257	4.700866	0.0001	Significant
LOG(RGDP)	1.171249	1.310425	0.893793	0.3788	Insignificant
LOG(RGDP(-1))	1.285315	1.276999	1.006512	0.3225	Insignificant
INFR	-0.014978	0.005908	-2.535159	0.0436	Significant
INFR(-1)	-0.006758	0.009894	-0.683045	0.5000	Insignificant
LOG(RGDPxINFR)	0.200346	0.069636	2.877704	0.0373	Significant
LOG(RGDPxINFR(-1))	0.093920	0.040471	2.320634	0.0471	Significant
C	-3.676207	1.727544	-2.127996	0.0420	
R-squared	0.914188		F-statistic	44.13530	
Adjusted R-squared	0.893474		Prob(F-statistic)	0.000000	

Source: Author's Computation, 2020 using Eview 9

The estimated ARDL model presented in Table 3 is well fitted because it has an Adjusted R-square value of 89 percent which is above 50% acceptable level. It showed that about 89% of unemployment is being explained by economic growth, inflation rate and the interaction term over the period under study. And the remaining 11% is being captured by other variables outside the model. In addition, the explanatory variables are also jointly significant to explain unemployment as revealed by the small probability value of the F statistic (0.00000) which is less than 5%

Finding revealed that the interaction term (RGDPxINFR) has significant positive relationship with unemployment. In another word, economic growth has significant positive relationship with unemployment when economic growth interacts with inflation rate over the period under study. Precisely, a unit change in interaction term (RGDPxINFR) will bring about 0.006758 percent increases in unemployment and it is in line with the apriori expectation of the study

Finding also revealed that economic growth (proxy by RGDP) has insignificant positive relationship with unemployment at 5 percent significant level. Specifically, a unit change

in economic growth will bring about 1.171249 percent increases in unemployment which is contrary to Okun’s law and also not in line with the work of Darma and Onimisi (2017), Imoisi, Amba and Okon (2017) and among others. The plausible reason that can be deduced from this positive relationship is that there is likelihood the growth in Nigeria’s Real Gross Domestic Product is not inclusive. Furthermore, Inflation rate (INFR) showed expected sign. Finding revealed that inflation rate has significant negative relationship with unemployment at 5 percent significant level. To be precise one percent change in inflation rate would result in about 0.014978 percent decreases in unemployment rate which is similar to the work of Chinedu (2017) among others

**Bounds Test to Co-integration**

The F- statistic value of 2.717372 from the ARDL bound testing presented in Table 4 below is smaller than the lower bound critical value of 3.23 at 5 percent level. Therefore, on this basis the null hypothesis of no long run relationship is accepted and conclude that unemployment, economic growth, inflation rate and interaction term do not have long run relationship over the period under study and this similar to the work of Darma and Onimisi (2017).

**Table 4. ARDL Bounds Test**

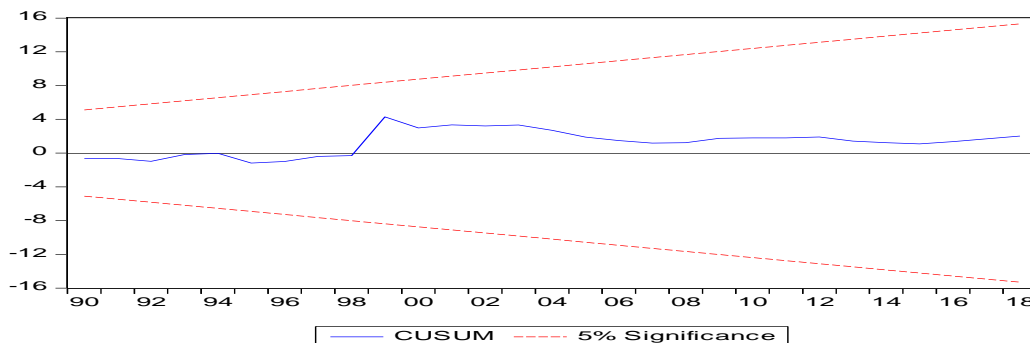
Computed F- statistic	K	5% critical Bound Test value	
		Lower Bound	Upper Bound
2.717372	3	3.23	4.35

Source: Author’s Computation, 2020 using Eview 9

**Diagnostic Checking**

**CUSUM Stability Test**

The short-run model is found to be stable as revealed by CUSUM test in figure 1. The CUSUM plot falls within the 5 percent critical bound, which implies that the parameters in the model are stable



**Figure 1: CUSUM Test**

**Test for Autocorrelation and Heteroscedasticity**

The short-model is free from autocorrelation and heteroscedasticity as suggested by the Breusch-Godfrey Serial Correlation LM Test with an observed R square p-value of 0.1754 and Breusch-Pagan-Godfrey heteroscedasticity test with an observed R square p-value of 0.2249 which are all more than 5 percent as shown in Table 5 as follows:

**Table 5. Test for Autocorrelation and Heteroscedasticity**

<b>Breusch-Godfrey Serial Correlation LM Test</b>			
F-statistic	1.462253	Prob. F(1,28)	0.2367
Obs*R-squared	1.836362	Prob. Chi-Square(1)	0.1754
<b>Heteroskedasticity Test: Breusch-Pagan-Godfrey</b>			
F-statistic	1.411841	Prob. F(7,29)	0.2385
Obs*R-squared	9.404311	Prob. Chi-Square(7)	0.2249

Source: Author’s Computation, 2020 using Eview 9

**Marginal effect of economic growth on unemployment for maximum, mean and minimum level of inflation rate**

The marginal effect of economic growth (proxy by RGDP) on unemployment when economic growth interacts with inflation rate is presented in Table 6 and it was calculated using the short run coefficients of the estimated ARDL model presented in Table 3. From the result, the marginal effect of economic growth on unemployment when economic growth interact with inflation rate is positive and it is significant only at maximum and mean level of inflation rate using 5 percent significant level. This means that at maximum and mean level of inflation rate, economic growth has significant positive relationship with unemployment. While at minimum level of inflation rate, economic growth has insignificant positive relationship with unemployment. Specifically, at maximum, mean and minimum level of inflation rate, economic growth would lead to increase in unemployment by 58.84%, 17.89% and 2.61% respectively.

**Table 6. Marginal effect of economic growth on unemployment for maximum, mean and minimum level of inflation rate**

Maximum level of inflation rate (42.9)	Mean level of inflation rate (13.04211)	Minimum level of inflation rate(1.9)
$\frac{\partial \log(UNER)}{\partial \log(RGDP)}$ $= \emptyset_1 + \emptyset_3 INFR$ $=1.171249+0.200346$ $(42.9)=58.84$ Marginal Effect=58.84 New Std.Error(9.803583) t. stat [6.00]	$\frac{\partial \log(UNER)}{\partial \log(RGDP)} = \emptyset_1 + \emptyset_3 INFR$ $=1.171249+0.200346$ $(13.04211)=17.89$ Marginal Effect=17.89 New Std.Error(3.181876) t. stat [5.62]	$\frac{\partial \log UNER}{\partial \log(RGDP)} = \emptyset_1 + \emptyset_3 INF$ $=1.171249+0.200346$ $(1.9)=2.61$ Marginal Effect=2.61 New Std.Error(1.356081) t. stat [1.92]

**Note:**t-sta>1.96 (significant at 5%), t-sta<1.96 (insignificant at 5%). The calculation of the standard error was carried out as suggested by Brambor, etal (2005). (See Table 7)

**Table 7. New standard error of the marginal effect**

**Standard Error (S.E) of marginal effect**

$$S.E \text{ of } \frac{\partial \log(RGDP)}{\partial \log(NOXP)} = \sqrt{Var(\emptyset_1) + INFR^2 Var\emptyset_3 + 2 \cdot INFR \cdot Cova(\emptyset_1, \emptyset_3)}$$

**Standard Error (S.E) of marginal effect at maximum level of inflation rate**

$$S.E \text{ of } \frac{\partial \log(RGDP)}{\partial \log(NOXP)} = \sqrt{1.71721397 + 42.9^2 * 0.052103141 + 2 * 42.9 * -0.017460649} = \mathbf{9.803583}$$

**Standard Error (S.E) of marginal effect at mean level of inflation rate**

$$S.E \text{ of } \frac{\partial \log(RGDP)}{\partial \log(NOXP)} = \sqrt{1.71721397 + 13.04211^2 * 0.052103141 + 2 * 13.04211 * -0.017460649}$$

$$= \mathbf{3.181876}$$

**Standard Error (S.E) of marginal effect at minimum level of inflation rate**

$$S.E \text{ of } \frac{\partial \log(RGDP)}{\partial \log(NOXP)} = \sqrt{1.71721397 + 1.9^2 * 0.052103141 + 2 * 1.9 * -0.017460649}$$

$$= \mathbf{1.356081}$$

Where:S.E= Standard error, Var=Variance,Cova=Covariance, INFR=Inflation rate,  $\emptyset_1$  and  $\emptyset_2$ =Coefficients

**Conclusion**

This study concludes that economic growth has a positive relationship with unemployment when economic growth interacts with inflation rate and the relationship is significant only



at maximum and mean level of inflation rate over the period under study. That is to say when inflation becomes too high, the economy would suffer and it would not have the capacity to provide employment to those who are active and willing to work.

## Recommendations

Based on the findings, the study makes the following recommendations;

- i. That government should formulate policies to control the level of inflation rate to a minimal level because high inflation may reduce the level of business investment and possibly affect the growth of GDP
- ii. In addition, vocational subjects need to be included in the curriculum of our education at all levels in order to prepare future graduates to be self-employed and also to be employer of labour rather than waiting for government to provide jobs. This will go a long way to reduce the level of unemployment in the county and eventually lead to improvement in GDP

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## Foreign Portfolio Investment Creates Positive Spillovers, But How?

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### Abstract

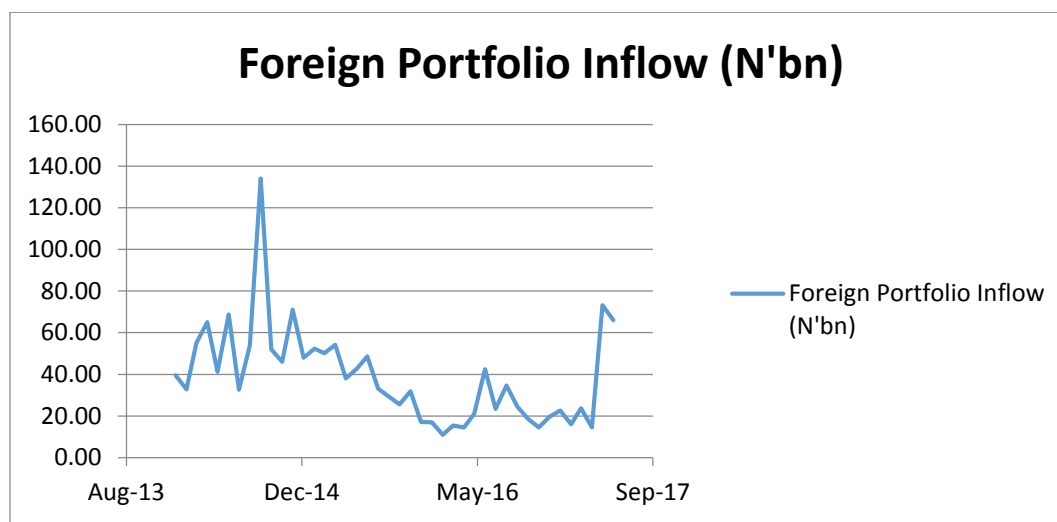
Granted that there are beneficial effects of portfolio capital flows for employment generation, what are the channels of effect? Identifying the channels should beneficially impact policy quality, and can come about through a disaggregation of the components of portfolio capital. In this study, the search for the channels of effect is modeled in a reduced form, linear manner, regressing employment on portfolio capital's components while controlling for jobs consequent upon growth of the economy. It turns out that the coefficients of all the component parts are non-trivial. In addition, debt by way of bonds and money market instruments proved positively related to employment in a significant manner, providing a much hoped-for vista for further action on the employment generation front. Equities exhibited the reverse effects, while the notion of jobless growth, feared for Nigeria for quite a while, was confirmed. It was recommended that Nigeria should locate consciously on the technology continuum in the production process, and encourage bonds and money market instruments. Further study was recommended on the mechanism of effect.

**Keywords:** Disaggregation, Employment growth, JEL Classification, Portfolio investment and Unemployment

### Introduction

Foreign portfolio investment is classified as the most volatile of all foreign capital flows, exhibiting surges and waves which, according to IMF (2011), have hurt economies. Reverse flow and its disruptive effects have become well established features of portfolio capital and can be generally regarded as its weakest point. However, its benefits are not in doubt. It supplements domestic savings (Karimo & Tobi, 2013), provides foreign exchange, and promotes employment generation (Elekwa, Aniebo & Ogu, 2016). These are valuable spillovers for growth and development.

In a bid to realize the spillovers, many developing countries have sought greater capital inflows, liberalizing financially as recommended by the Washington Consensus. Relative successes have greeted some who worked at this goal, increasing their general inflow. Figure 1 shows Nigeria's experience in a difficult period around the most recent global financial crises (2013 to 2017). Following the crash in 2014, the bold effort to stabilize the economy and resume growth yielded a rebound in foreign capital inflow, even if achieved with much difficulty and at great costs. Such effort was however deemed justified by fears of a total crash on one hand, and promises of the expected spillovers on the other hand.



*Figure 1: Nigeria's foreign capital inflow*

Granted that there are spillovers, how do they take effect? In the first instance, what is the channel of effect? Can policy support such channel? Identifying the channel of effect should beneficially impact policy quality. Disaggregation of the components of portfolio capital inflows may facilitate such identification, and also allow a meaningful assessment of individual component effects. This will permit a comparative view, since what is seen now is the aggregated impact of all the components. This approach was adopted earlier with capital flows in general. Their disaggregation led to a better appreciation of the place of portfolio investment, as well as the recognition of the relative stability and more beneficial impact of direct investment. These recognitions made room for more precise policy formulation.

This therefore becomes the focus of this study namely, that given the beneficial effects of foreign portfolio capital inflows for employment generation, are channels identifiable through which such benefits can more readily be harnessed or delivered? And upon isolation, can such channels be strengthened in order to sustain the flows and checkmate possible reverse-flow attendant to economic challenges and other portfolio capital flow dynamics?

In Nigeria, employment generation is a very urgent need. The economy is one in which growth that is non-inclusive, alternating with negative or no growth, along with a population growth rate that refuses to flag, and a polity that hardly can get off the crises burner; these have joined hands to give rise to inadequate growth of employment and a continuous rise in unemployment. Figure 2 shows the trend of population growth, economic growth and unemployment in Nigeria.

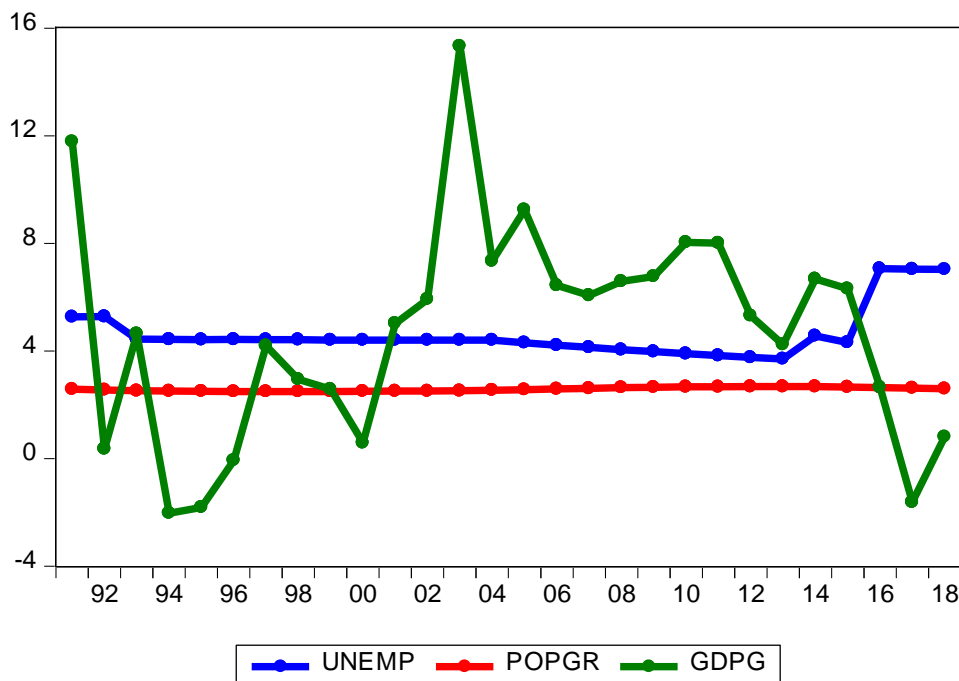


Figure 2: Population growth, economic growth & unemployment in Nigeria (1990-2018).

Certainly, a preponderance of a youthful but idle population is undesirable. If nothing can be done right away regarding the structure of the population, something should be possible regarding employment generation, thereby ameliorating the pains and the restiveness of the unemployed. It might even lead to a positive mobilization of the teeming youths. In contributing to the endeavour to address this undesirable situation, this study enquires into the channels through which foreign portfolio investment might contribute to employment generation in Nigeria. Three specific channels, enjoined on the study by data availability, were considered. These are: equity, debt as bonds and money market instruments.

### Review of literature.

On account of its volatility, in particular its sudden reverse flow and attendant instability, scholars have not bothered about the employment generating potentials of portfolio capital. Yet it is generally known that portfolio capital is sought after for its facilitation of economic activity, and in many cases for its contribution to output. Therefore, it is in this indirect manner that the literature documents the employment effects of portfolio capital flow and its possible role in employment generation.

As early as 2008, Ekeocha (2008) opined that Foreign Portfolio Investment though volatile in nature is an important source of fund to support investment in an economy that has a wide saving-investment gap such as Nigeria. The study then modeled the long run determinant of Foreign Portfolio Investment in Nigeria over the period 1986-2006 and

found Foreign Portfolio Investment to be co-integrated with, and positively related to, real rate of return on investment in the capital market, real interest rate and investment; but negatively related to real exchange rate, market capitalization, trade openness and institutional quality in Nigeria. In the light of Nigerian government's initiatives to attract Foreign Portfolio Investment, Tokunbo (2010) stressed that despite the increased flow of Foreign Portfolio Investment to developing countries, especially sub Saharan African countries including Nigeria, low level of per capita income, high unemployment rate, low and falling GDP are still prevalent. Their study therefore analyzed the direction and significance of the effect of Foreign Portfolio Investment in the economic growth in Nigeria covering the period 1990-2005. It revealed that Foreign Portfolio Investment, Domestic Investment growth and Net Export growth impacted positively and significantly on economic growth in Nigeria.

Duasa and Kassim (2010) examined the relationship between foreign portfolio investment (FPI) and Malaysia's economic performance from 1991 to 2006. The findings suggest that economic performance is the major pull factor in attracting FPI into the country. Olotu and Jegbefumwe (2011) sought the impact of foreign portfolio investment (FPI) on economic growth in Nigeria using error correction model (ECM). Their result reveals that FPI has a positive relationship with the growth rate of real non-oil GDP.

Ozurumba (2012) assessed the impact of stock market returns on foreign portfolio investment in Nigeria using multiple linear regression analysis. The results showed that foreign portfolio investment has a positive but insignificant impact on stock market returns while unidirectional causality runs from stock market returns to foreign portfolio investment in the economy. Ogujiuba and Obiechina (2012) examined the relationship existing among Foreign Private Capital components and Foreign Portfolio Investment, economic growth and some macroeconomic indicators such as interest rate and inflation rate using time series data from 1986-2008. A non-restrictive vector Autoregressive (VAR) model was developed with restrictions imposed to identify the orthogonal (structural) components of the error terms. The result indicated that the response of the GDP to shocks from the Foreign Portfolio Investment was surprisingly not contemporaneous.

Onuorah and Eze (2013) took up the impact of macroeconomic variables on foreign portfolio investments in Nigeria between the periods of 1980 – 2010. Macroeconomic variables were found to be of statistically insignificant effect on FPI. Eniekezimene (2013) examined the impact of foreign portfolio investment (FPI) on capital market growth in Nigeria using ordinary least squares (OLS) method, and found that foreign portfolio investment (FPI) had a positive impact on capital market growth. Hsu (2013) investigated how foreign investment portfolios affect the domestic stock market of host countries by comparing the performance of favoured and un-favoured stocks of foreign investors. The findings showed that market participants did herd-in the foreign-investor-favoured stock group, but herded-in the un-favoured group only in bear markets.

Baghebo and Apere (2014) studied the impact of foreign portfolio investment on economic growth in Nigeria from 1986 – 2011, and discovered that foreign portfolio investment had a positive long run relationship with real domestic product in Nigeria.

Ololade and Ekperiware (2015) assessed the contribution of foreign portfolio investment towards financing infrastructural deficits, while investigating factors that attract FPI into the Nigerian bond market. The result showed that there was a significant relationship between FPI and bond yield. Adebisi and Arikpo (2017) examined the relationship between financial market performance and foreign portfolio investment in Nigeria for the period 1984 to 2015 using the Autoregressive distributive lag (ARDL). Findings from the analysis showed that financial market performance has no long run causal relationship with foreign portfolio investment in Nigeria.

Elekwa *et al* (2016) in their study of the Nigerian economy for the period 1980 to 2014, found that in the long term, portfolio investment impacts employment growth positively and significantly. Akinmulegun (2018) examined the effect of capital market development on foreign portfolio investment in Nigeria between 1985 and 2016 using Vector Error Correction Mechanism (VECM). Result indicated that market capitalization has negative significant effect on foreign portfolio investment in Nigeria. However, Ohiaeri (2019) examined interactions amongst foreign portfolio investment, oil price movement and capital market performance in Nigeria from 1970 to 2016 using Vector Auto Regression, Granger causality and multi- regression econometric techniques. The findings revealed a unidirectional long run Granger causality existing between foreign portfolio investment and capital market performance. Appiah – Kubi (2020) analyzed the role of foreign capital investment in the high unemployment situation in Ghana using descriptive statistics and found that foreign capital investment aggravated unemployment instead of ameliorating it.

In summary, although some studies reported negative effects of portfolio capital flow, the majority did uncover some economic activity enhancement effects of portfolio capital. No enquiry was made by any of the works reviewed, however, on the channel through which such beneficial effect was delivered. That is the focus of this study.

## Materials and Method

This study models the problem in a reduced form, linear manner by regressing employment on portfolio capital's components while controlling for jobs consequent upon growth of the economy. For specification, we begin with the general form:

$$\text{empl} = f(\text{portfolio capital flow, gdpg}) \equiv f(\text{equity, bonds, mm, gdpg}) \dots\dots\dots (1)$$

Where empl = employment level; equity = portfolio equity flows; bonds = portfolio bonds flow; mm = portfolio money market instruments and gdpg = GDP growth.

We estimate the following specification:

$$\ln \text{empl} = \varphi_0 + \varphi_1 \ln \text{equity} + \varphi_2 \ln \text{bonds} + \varphi_3 \ln \text{mm} + \varphi_4 \text{gdpg} + \epsilon \dots\dots\dots (2)$$

Where  $\varphi_s$  are the parameters; ln = natural logarithm and  $\epsilon$  the stochastic error term.

Disaggregated portfolio data came from Central Bank of Nigeria statistical bulletin (CBN, 2018), while data for employment level and output growth came from Pen World 9.5 and World Development Indicators (WDI) respectively. The disaggregated portfolio data proved to be virtually perfectly linearly correlated (Appendix 2); and the same in their relationship with employment levels. Concerns about endogeneity arose from the possible interaction between jobs consequent upon GDP growth and the probable share of portfolio capital flows therein i.e. its contribution to employment. Available data size further proved to be very limiting and low frequency. In the light of these features data transformation became necessary. This was carried out first by log-transforming the data except output growth, then differencing portfolio components to isolate their non-cumulative effects, and finally testing for Stationarity around a linear trend. The logic, of course, is that, granted that there are shocks, what becomes of post shock behaviour in a normally (or at least expectedly) trending series? To answer this question, KPSS (1992 a, b) Stationarity test was employed. With stationarity around a linear trend as the basic interest, no supportive or confirmatory test was required or undertaken. As required by this procedure, the series were already log-transformed, and as such any exponential trends would have been turned into linear ones. The outcome of these steps resulted to substantially reduced correlation levels (Appendix 3), and level-stationary series (Table 1).

Table 1: Kwiatkowski-Phillips-Schmidt-Shin (KPSS) Stationarity Test Result - Summary

Variable	Sig. level (5%)	LM Stat	Outcome
Lnempl	0.146000	0.129216	I(0)
Lneq	0.146000	0.122291	I(0)
Lnbd	0.463000	0.264958	I(0)
Lnmm	0.146000	0.111473	I(0)
Gdpg	0.146000	0.112295	I(0)

Source: Authors' computation

In the light of the outcomes, OLS procedure was adopted for estimation. However, the likelihood of persistence of endogeneity and the very data size, suggested the employment of the Newey and West's (1987) Heteroscedastic and Autocorrelation Consistent (HAC) covariance matrix estimator, whose standard errors are robust.

### Result of the Findings

The following results were obtained using E Views 10.

Table 2: Estimates- HAC std errors & covariance

(see Appendix for full result)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNEQ	-0.021215	0.096611	-0.219595	0.8325
LNBD	0.039940	0.009868	4.047275	0.0049
LNMM	0.041414	0.012618	3.282154	0.0134
GDPG	-1.17E-05	8.93E-06	-1.313573	0.2304
C	3.556085	0.042794	83.09779	0.0000

Source: Authors' computation



These are tentative results basically indicative of directions for further enquiry. Nevertheless, interesting findings emerged. First, bonds turned out to be highly significant. In addition, it is positively related to employment levels in the national economy. Not surprisingly, it is positively correlated with output growth (Appendix 3). This is thus a promising area for further attention.

Money market instruments followed the same general pattern, equally suggesting a promising further enquiry. This is notwithstanding that it is negatively related to output growth. Equity is not statistically significant at the 5% level and its relationship with employment levels is also negative.

The coefficients of all three components of Portfolio capital flow are, however, non-trivial. This very outcome provides impetus and sustenance for continued inquiry into the ways that portfolio capital might contribute to economic welfare of the nation, and in particular, employment generation.

The estimated outcome of output growth is in line with recent experiences in the economy. It points to non-inclusive growth. Indeed, the negative relationship with employment levels, and its extremely small coefficient, indicate that it matters little in the quest for employment generation. The nature of what growth has been wrought might even reduce employment growth through capital intensive expansion path as in the oil sector, and mechanization of all sorts in an economy awash with labour; competitive pressures, not least from globalization, keep mounting on firms, for the so called state-of-the-art operational processes in which more and more functions are 'out sourced' to computers and electronics in the on-going global computerization and labour saving efforts. This trend of organizational growth in virtually all aspects of resource engagement except employment level, is already noticeable in the banking sector in Nigeria (Aniebo, Oguanobi & Akamobi, 2013).

It seems clear from the foregoing that employment generation may not be meaningfully achieved if it is approached on a 'residual effect' basis, that is, if it is sought as the natural outcome of economic activity. Theory expects higher employment levels to result from increasing output levels. However, the reality of jobless growth demonstrates that sometimes conscious effort is called for to make jobs grow with output. Portfolio flow, and in particular, debts in the forms of bonds and money market instruments, from our result, show a great promise for this. The reason may not be unconnected with the structure of such flows which, unlike equity flow, exhibit specific tenures, and always feature measurable, project-like goals or targets. It is in these two channels with greater likelihood that further inquiry is called for, with a view to isolating the precise mechanism at work. Meanwhile, such flows, if encouraged, will most likely forward the quest for employment growth in Nigeria.

It is also not out of place to contemplate technology rating in all public projects, and to provide incentives for private investors who toe the line indicated. Specifically, to

contribute to the engagement of our abundant labour supply, labour intensive production methods should be preferred in all sectors of the economy, and rewarded for their adoption by private investors. This is simply a conscious decision to locate somewhere on the technology continuum in the production process, not to lower quality or play second fiddle in any way. It is probably obvious that, at least on two fronts, the Nigerian economy is not ready for cutting edge technology just yet. These two fronts, amidst numerous others, are *energy provision* and *maintenance culture*. This reality should not hinder the struggle to consciously adopt and implement *international best practice*. It should rather encourage us to operate where we currently are, compel us to put all our resources into use so as to grow from there. And if we get our macro-economy right, our economy will prove just as competitive. Policy can enshrine this requirement in all public undertakings, the way federal character has been enshrined in all public affairs.

### **Conclusion**

The persistence of high levels of unemployment and population growth, as well as increasing pool of youthful but idle population in Nigeria, can only spell doom for the country if quick solutions are not found. Such solutions can only come from informed insights into the workings of the economy, having thus far defied traditional approaches. In the light of this, this study investigated the channels through which foreign portfolio flow, a non-traditional employment generator, might contribute to employment generation. The results indicated that debts in the forms of bonds and money market instruments were most promising. Encouragement of such forms of portfolio capital inflow as well as labour intensive production processes was recommended for immediate implementation while further enquiry into the mechanism of effect continues.

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**APPENDIX.**

## Appendix 1

Dependent Variable: LNEMPL

Method: Least Squares

Date: 05/21/20 Time: 00:45

Sample: 2006 2017

Included observations: 12

HAC standard errors &amp; covariance (Bartlett kernel, Newey-West fixed bandwidth = 3.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNEQ	-0.021215	0.096611	-0.219595	0.8325
LNBD	0.039940	0.009868	4.047275	0.0049
LNMM	0.041414	0.012618	3.282154	0.0134
GDPG	-1.17E-05	8.93E-06	-1.313573	0.2304
C	3.556085	0.042794	83.09779	0.0000
R-squared	0.910467	Mean dependent var		3.985011
Adjusted R-squared	0.859305	S.D. dependent var		0.111698
S.E. of regression	0.041897	Akaike info criterion		-3.212861
Sum squared resid	0.012288	Schwarz criterion		-3.010817
Log likelihood	24.27717	Hannan-Quinn criter.		-3.287666
F-statistic	17.79577	Durbin-Watson stat		1.359088
Prob(F-statistic)	0.000899	Wald F-statistic		37.06403
Prob(Wald F-statistic)	0.000085			

**Appendix 2: Correlation Matrix before Data transformation**

	EMPL	EQUITY	BONDS	MM	GDPG
EMPL	1.000000	0.975107	0.970809	0.953482	-0.033733
EQUITY	0.975107	1.000000	0.993529	0.975167	-0.018883
BONDS	0.970809	0.993529	1.000000	0.980470	-0.094074
MM	0.953482	0.975167	0.980470	1.000000	-0.074496
GDPG	-0.033733	-0.018883	-0.094074	-0.074496	1.000000

**Appendix 3: Correlation Matrix after Data Transformation**

	LNEMPL	LNEQ	LNBD	LNMM	GDPG
LNEMPL	1.000000	-0.009126	0.098994	-0.019531	-0.018141
LNEQ	-0.009126	1.000000	0.539755	-0.112228	0.664065
LNBD	0.098994	0.539755	1.000000	-0.224134	0.521173
LNMM	-0.019531	-0.112228	-0.224134	1.000000	-0.107104
GDPG	-0.018141	0.664065	0.521173	-0.107104	1.000000

**APPENDIX 4: KPSS Stationarity Test**

**Null Hypothesis: LNEMPL is stationary**

Exogenous: Constant, Linear Trend

Bandwidth: 2 (Newey-West automatic) using Bartlett kernel

Kwiatkowski-Phillips-Schmidt-Shin test statistic		0.129216
Asymptotic critical values*:	level	0.216000
	5% level	0.146000
	10% level	0.119000

\*Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1)

**APPENDIX 5: KPSS Stationarity Test**

**Null Hypothesis: LNEQ is stationary**

Exogenous: Constant, Linear Trend

Bandwidth: 3 (Newey-West automatic) using Bartlett kernel

		LM-Stat.
Kwiatkowski-Phillips-Schmidt-Shin test statistic		0.122291
Asymptotic critical values*:	1% level	0.216000
	5% level	0.146000
	10% level	0.119000

\*Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1)

**APPENDIX 6: KPSS Stationarity Test**

**Null Hypothesis: LNBND is stationary**

Exogenous: Constant

Bandwidth: 6 (Newey-West automatic) using Bartlett kernel

Kwiatkowski-Phillips-Schmidt-Shin test statistic		
Asymptotic critical values*:	1% level	
	5% level	
	10% level	

\*Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1)

**APPENDIX 7: KPSS Stationarity Test**

**Null Hypothesis: LNMM is stationary**

Exogenous: Constant

Bandwidth: 0 (Newey-West automatic) using Bartlett kernel

		LM-Stat.
Kwiatkowski-Phillips-Schmidt-Shin test statistic		0.128587
Asymptotic critical values*:	1% level	0.739000
	5% level	0.463000
	10% level	0.347000

\*Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1)

### APPENDIX 8: KPSS Stationarity Test

Null Hypothesis: GDPG is stationary

Exogenous: Constant, Linear Trend

Bandwidth: 2 (Newey-West automatic) using Bartlett kernel

	LM-Stat.
Kwiatkowski-Phillips-Schmidt-Shin test statistic	0.112295
Asymptotic critical values*:	
1% level	0.216000
5% level	0.146000
10% level	0.119000

\*Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1)

## **Inflation and Manufacturing Capacity Utilization in Nigeria: An ARDL Bound Testing Approach**

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### **Abstract**

The study examines the impact of inflation on manufacturing capacity utilization in Nigeria from 1986 to 2018. Inflation rate, trade openness, interest rate, gross fixed capital formation, and import of goods and services were the independent variables while manufacturing capacity utilization was the dependent variable. For this study, secondary time series data obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin 2018 and World Development Indicators (WDI), was adopted. In addition, Auto-Regressive Distributed Lag (ARDL) model was employed after conducting a diagnosis test and ensuring that the data was stable. Results of the analysis showed that inflation had a significant negative effect on the country's manufacturing capacity utilization; trade openness had a negative but insignificant effect on manufacturing capacity utilization; interest rate has a positive but insignificant effect; gross fixed capital formation and import of goods and services had a negative but significant effects on manufacturing capacity utilization. Based on the results, it is therefore recommended that the Nigerian government should implement policies geared towards combating inflation in order to enhance the development of the manufacturing sector's output which will eventually make the manufacturing sector more vibrant, reduce her unemployment rate, prevent arbitrary distribution of wealth and income and invariable lead to economic growth and external viability.

**Keywords:** Auto-Regressive Distributed Lag Model, Economic growth, External viability, Inflation rate and Manufacturing capacity utilization.

### **Introduction**

One of the core issues of policy debates in most countries is engaging structural policies to combat inflation so as to assist most sectors in the economy and most importantly the manufacturing sector to achieve improvement on economic performance and eventually leading to overall growth of the economy. Economic goals and needs of most countries are predicated on their level of development. Take for example, the economic realities of the United Kingdom may be divergent from that of Zambia for one is a significantly developed country while the other is an under developed nation. The formulation of effective and appropriate monetary and fiscal policies are predicated upon the attainment of these goals, to ensure recovery of these economies in spite of the global crisis.



Manufacturing involves the transformation of raw materials into intermediate or finished goods. Manufacturing sector is concerned with the production, processing of items, and engaging in either creation of new commodities or in value addition (Adebayo, 2011). According to Dickson (2010), manufacturing sector is responsible for the large share of the industrial sector in developed economy. Also, manufacturing sector plays an important role in the transformation of a modern economy. Manufacturing sector is a subsection of the industrial sector. It is a trial for increasing the productivity interrelated to import replacement and export expansion, creating foreign exchange income capacity; which result to employment and per capita income, with project unique consumption patterns. Its contribution to the Gross Domestic Product (GDP), the manufacturing sector is paramount and has been overhauled by the service sector in a number of enterprise for Organization of Economic Co-operation and Development (OECD) countries (Ugwanyi, Utazi, Micheal & Umedike, 2015).

The key presumption that increased in the sector labor productiveness and the productivity-reviving innovations technologies engaged in the sector lead to higher proportion in economies of scale and technical progress than other sectors (Thirlwall, 2013; Onakoya, Ogundajo & Johnson, 2017). More so, Szirmai (2012) believed that the arrival of manufacturing sector as a significant activity in many developing countries has a pattern and frame the basic aspect of economic growth and development. Omankhanlen and Owonibi (2012) noticed that this sector is riddled with various challenges. Apart from infrastructure, there are other challenges such as high inflation rate and bank unwillingness to lend to the manufacturing sector though the monetary authorities rank it as the priority sector. All these could be the reason why manufacturing sector has not been successful in serving as a means to increasing productivity that is related to import replacement and export expansion, creating foreign exchange earning capacity, increasing unemployment and capital income, which result to unusual consumption pattern. These issues of uncertainty and inconsistency in inflation rate rattled serious problems to manufacturing sector capacity utilization.

Research on impact of inflation on economic variables in the Nigerian economy has been of interest to economist and policy makers for a long time. However, studies have been carried out on certain aspects of economic variables. The main motivation of this study is to assess the impact of inflation on manufacturing output in Nigeria and, in particular, whether inflation had effect on capacity utilization of the manufacturing sector. There is ample empirical evidence in the literature about inflation and manufacturing output in developed and developing countries (Agbonlahor, 2014; Nuno, 2012; Penelope & Thirlwall, 2013; Kruskovic, 2020) among others. Similarly, there are evidences from Nigeria (Odior, 2013; Nwadu, 2016; Nwokoro, 2017; George-Anokwuru & Ekpeyong, 2020) among others. However, only a few had examined how inflation affects specific sectors of the economy (Ugwanyi *et al*, 2015; Modebe & Ezeaku, 2016). Of these few studies, only a handful have looked at the performance of the manufacturing sector, with a

high percentage using output or productivity as the proxy. Since there are other measures of the performance of the sector, using output or productivity alone may leave out some salient information and hence this study makes an attempt at filling the gap in the literature and presents an analysis of the effect of inflation on capacity utilization in the Nigerian manufacturing sector. The incessant rise in the general price level in the Nigerian economy which is attributable to the rate of inflation, and the call for enabling environment by the manufacturing sector, gave the impetus to find out if the monetary policies on inflation, implemented by the Central Bank of Nigeria, have been capable of addressing manufacturing sectors capacity utilization. This is important because the manufacturing sectors capacity utilization is fundamental to production decisions, employment generation, investors' investment decisions, and eventually leading to economic growth in Nigeria.

From a methodological view, the focus has been on the non-linear effects of inflation on economic growth. Many authors find multiplicative effects of inflationary trend on manufacturing capacity utilization to be significantly higher in economic down turns (Nwadu, 2016; Nwokoro, 2017; Marlina & Sudana, 2020) among others. As such, exchange rate appreciation in the short run, could reduce inflation rate and enhance GDP growth while in the long run, monetary policy mechanism would have negative effect on real GDP. This study is important for cohesion on the pattern of the manufacturing sector convergence through monetary control instruments (inflation). The main question in this respect is to determine the effect of inflation on capacity utilization in the manufacturing sector of Nigeria over the period of 1986 to 2018.

Our main results showed that inflation has a significant negative effect on manufacturing sector performance which confirms the theoretical knowledge. In addition, trade openness had a negative and almost significant effect on manufacturing sector capacity utilization; interest rate has a positive but insignificant effect. The coefficient of gross fixed capital formation and import of goods and services had negative but significant effects on manufacturing capacity utilization, which agrees with the a priori expectation. This shows that there is an inverse relationship between capacity utilization and inflation in Nigeria. It implies that if capacity utilization doubles at any time period, the result will be a decline in the current rate of inflation by about 1.05 percentage points. Possible explanation for this result may be that since increasing capacity utilization means the acquisition of more capital stock, money supply in circulation is reduced. It becomes a mop up mechanism that diverts idle fund, which have the tendency to fuel inflation to be channeled into productive activities. The lags in the manufacturing and distribution chain also help to tie down these funds, till they are purchased by the final consumer, thereby impacting negatively on inflation. It was also established by the study that gross fixed capital formation and import of goods and services are important determinants of manufacturing sector performance.

The benefits of this study therefore reveal that the monetary authorities should put in more effort towards lubricating access to financial resources which will induce producers in the manufacturing sector, to improve upon the level of installed capacity being utilized. The Nigerian government should evolve policies that will help manufacturing industries in the country increase capacity as this will help to curb the rate of inflation. This can be achieved by addressing notable constraints to capacity utilization such as infrastructure with particular reference to electricity and energy supply. Increased capacity utilization is expected to lower the weight of unemployment of resources in the whole economy, particularly labour resources.

The paper is structured as follows: Section 2 reviews the importance of inflation on manufacturing output from a policy and empirical perspective. Section 3 explains the methodology and data used. Section 4 presents the results of the analysis. Concluding remarks are reflected in Section 5.

### **Literature Review**

During the recent financial crisis in Nigeria, policymakers, almost consensually, proposed the used of appropriate monetary instruments to combat inflationary trends in all sectors of the economy, manufacturing sector inclusive (Nigerian Economic Summit, 2016). Both developed and developing economies incorporated sound monetary policy tools in their price stability stimuli packages. (IMF, 2009). Economic theory of the classical school by David Ricardo (1772 - 1823), is considered a supporter of the money quantitative theory. Since money is understandably a medium of exchange, demonetization of precious metals and paper money in circulation is needed. However, fixed exchange rate should be institutionalized by the monetary authorities in order to avoid the depreciation of money (Smith, 2019). His concerned that money depreciation, due to the high price of gold was immediately followed by the rising prices and the accumulation of commodities value is a function of regular amount of money in circulation. In this regard, price fluctuation occurs as a result of changes in commodity production manner resulting from labour productivity.

Imoughele and Ismaila (2014) empirically examine the impact of monetary policy on Nigeria's manufacturing sector performance for the period 1986-2012. The study revealed after ensuring data stationarity and co-integration that individual variables: inflation rate, exchange rate and external reserve were statistically significant to manufacturing sector output while broad money supply and interest rate were not significant to manufacturing sector both in the previous and current year.

Charles (2012) investigated the effect of monetary policy on manufacturing sector in Nigeria, using econometrics test procedures. The result states that money supply affect manufacturing sector performance positively, while lending rate, income tax rate, inflation rate and exchange rate affects the performance of manufacturing sector negatively. This means that monetary policy is vital for the growth of the manufacturing sector in Nigeria

which in turn would lead to economic growth. Odior (2013) investigated empirically the impact of macroeconomic factors on manufacturing productivity in Nigeria over the period 1975-2011, using Augmented Dickey Fuller (ADF) test and error correction mechanism model. The findings establish the presence of a long term equilibrium relationship among the variables as indicated by the co integrating equation of the VECM. The author found that credit to the manufacturing sector in the form of loan and advance has the capacity to sharply increase the level of manufacturing output in Nigeria. The study concluded that high cost of borrowing is due to wide interest rate spread and a cut in margin between lending and deposit rate was recommended.

Onakoya *et al* (2017), investigated monetary policy and the sustainability of the manufacturing sector in Nigeria. The findings established a positive relationship between monetary policy and manufacturing sector performance in Nigeria. Nwokoro (2017), carried out a study on the relationship between foreign exchange, interest rates and manufacturing sector output in Nigeria. The author employed the ordinary least square (OLS), stationary, co-integration, together with error correction modelling. The results showed a negative but significant relationship between foreign exchange rate, interest rate and manufacturing output in Nigeria.

**Methodology**

**Analytical Framework**

The classical monetarist’s theory propounded by David Ricardo (1817) is used in this study to explain the relationship between monetary policies and price level in the economy. Following the quantity theory of money (QTM), they propounded that the quantity of money is the main determinant of the price level, or the value of money, such that any change in the quantity of currency produce can have direct and proportionate variation in the price level. Irving Fisher’s equation of exchange on the QTM;

$$MV = PQ..... (1)$$

Where M stands for the stock of money; V the velocity of circulation of money; Q the volume of transactions which take place within the given period; while P stands for the general price level in the economy. Substituting Y for Q, the equation of exchange becomes;

$$MV = PY..... (2)$$

However, P, V and Y are endogenously determined within the system. The variable M is the policy variable, which is exogenously determined by the monetary authorities.

The ARDL the Autoregressive Distributive Lags (ARDL) of Pesaran, Shin, and Smith (2001) was used to estimate and assess the parameters and effects of the model and apply the bounds testing approach to ascertain whether long-run relationship exists between the variables in the model. One of the advantages of the ARDL approach is its usage to model

mixture of both I(0) and I(1) in the same specification. Its bounds testing approach is more suitable and provides better results for small sample size. Using this approach, the dynamics of both the short-run and long-run parameters including the speed of adjustment when there is shock are estimated simultaneously within the same framework. Thereby subverting the problem of over parameterization, as robust lag lengths are crucial to this approach although, unable to incorporate I(2) variables in its analysis (Nkwatoh, 2014).

In the study, the dependent variable is Manufacturing Capacity Utilization (MCU). The explanatory variables are the vector of variables that include: Inflation Consumer Prices (INFCP), Trade Openness (TOP), Interest Rate (INT), Gross Fixed Capital Formation (GFCF) and Import of Goods and Services (IMPC). The functional relationship between dependent and independent variable is specified as follows:

$$MCU = f (INFCP, TOP, INT, GCFC, IMPC) \dots\dots\dots (3)$$

The above equation can be transformed into an econometric model in a semi log form as follows:

$$MCU = \beta_0 + \beta_1 INFCP + \beta_2 TOP + \beta_3 INT + \beta_4 GFCF + \beta_5 \ln IMPC + \mu \dots\dots\dots (4)$$

Where, MCU is Manufacturing capacity utilization; INFCP is Inflation consumer prices; TOP is Trade openness; INT is Interest rate; Gross Fixed Capital Formation (GFCF); IMPC is Import of goods and services current (local currency);  $\mu$  is stochastic variable or error term which must be negative, less than zero and significant sign for causality to exist in the long-run;  $\beta_0$  is constant term;  $\beta_1, \beta_2, \beta_3, \beta_4$  and  $\beta_5$  are parameters to be estimated for inflation consumer prices, trade openness, interest rate, gross fixed capital formation and import of goods and services respectively and  $\ln =$  Natural Logarithm of the variables used to smoothen possible scholastic effect from variables at level. Furthermore, the ARDL bounds test approach for the long-run relationship was based on the Wald test (F statistic), by imposing restrictions on the long-run estimated coefficients of three period lagged level of each of the explanatory variables to be equal to zero, that is, ( $H_0; \beta_0 = \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$ ) for equation (4), the logged variable is IMPC.

Apriori specification: the expected signs of the coefficients of the explanatory variables are:

$\beta_1 < 0$  (negative effect),  $\beta_2 < 0$  (negative effect),  $\beta_3 > 0$  (positive effect),  $\beta_4 < 0$  (negative effect) and  $\beta_5 > 0$  (negative effect); on manufacturing capacity utilization.

**Estimation Technique and Procedures**

The processes to this estimation procedure begin with the examination of the stochastic properties of the data in which descriptive statistics and unit root test are performed. The unit root test is necessary in order to avoid a spurious regression that may give a good fit and predict a statistical significance relationship between variables where none really exist (Mahadeva & Robinson, 2014). The variables used for the analysis are subjected to unit root tests so as to determine stationary or non-stationary of the series. The study considers

the unit root tests of Augmented Dickey Fuller (ADF) test to determine unexpected shift in time series that can lead to unreliable estimates. In each of these tests performed, the null hypothesis with intercept and trend was considered to determine whether each of the variables in the model being analyzed is stationary or not.

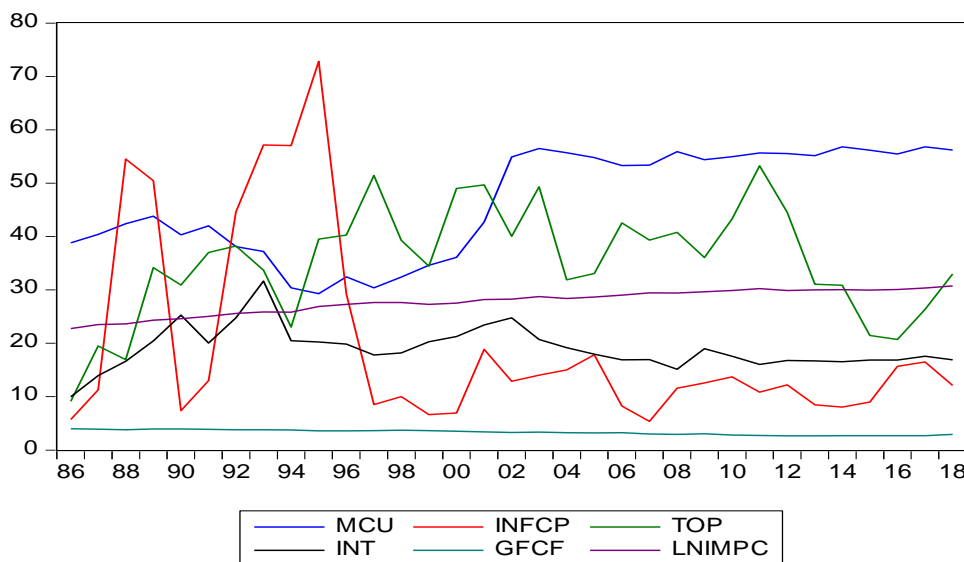
**Data Description and Sources**

The study utilizes time series data on five variables on manufacturing capacity utilization indicators. The independent variables include the Inflation consumer prices (INFCP), Trade openness (TOP), Interest rate (INT), Gross fixed capital formation (GFCF), and Import of goods and services (IMPC); while the dependent variable is Manufacturing Capacity Utilization (MCU). The entire data set covered the period 1986 to 2018 for which data are available. The data were obtained from two sources: Central Bank of Nigeria (CBN) Statistical Bulletin and World Development Indicators (WDI). Eviews 9 econometrics tool was used.

**Result of the Findings**

**Preliminary Analysis**

Figure 1 present the line and symbolic basic graph of the variables. MCU has its lowest point in 1995 while the highest was in 2014 and relatively stable afterwards. INFCP had a sharp increase in 1992 to 1995 with the highest in 1995, but dropped afterwards to the lowest in 2007. TOP was unstable while INT, GFCF and IMPC had been relatively stable for the period of study (1986 – 2018).



**Figure 1: Line and symbol basic graph**

Source: Author’s computation 2020

## **Descriptive Statistics**

Table 1 reports the summary statistics for each of the variables used in the model for the period (1986-2018). The statistics presented include the mean, median, maximum, minimum, standard deviation, skewness, kurtosis and Jarque-Bera. As it is observed, the standard deviations of INFCP is relatively higher than the other variables. This implies that inflation is more volatile and unpredictable compared to others. The skewness test which measure the asymmetry of the distribution of the series shows positive skew values for INFCP and INT variables. This indicates that the variables are skewed to the right and that the right tails are longer. Whereas, MCU, TOP, GFCF and IMPC are negatively skewed to the left. The result of kurtosis statistics which measures the peakedness or flatness of the distribution of the series indicates that INFCP and INT are highly leptokurtic as its kurtosis statistics is greater than 3. However, the distribution of MCU, TOP, GFCF and IMPC are highly platykurtic relative to the normal. The calculated Jarque-Bera statistics and p-values in Table 1 are used to test the null hypothesis for normal distribution. Given this, the p-values indicate that the null hypothesis of normality is accepted for MCU, TOP, GFCF and IMPC while it is rejected for INFCP and INT variable. This connotes that these variables apart from INFCP and INT are normally distributed.

**Table 1: Descriptive Statistics of the variables**

<b>Variabl es</b>	<b>Mean</b>	<b>Media n</b>	<b>Max.</b>	<b>Min.</b>	<b>Std. Dev.</b>	<b>Skewn ess</b>	<b>Kurtosi s</b>	<b>Jarque- Bera</b>	<b>Observa tions</b>
<b>MCU</b>	46.454	53.3	56.81	29.29	9.956	-0.371	1.522	3.764	33
<b>INFCP</b>	19.949	12.555	72.835	5.388	18.279	1.611	4.216*	16.307	33
<b>TOP</b>	35.274	36.059	53.278	9.136	10.467	-0.435	2.849	1.074	33
<b>INT</b>	18.99	17.948	31.65	9.959	3.895	0.928	5.285*	11.926	33
<b>GFCF</b>	3.332	3.345	4.006	2.651	0.463	-0.148	1.587	2.866	33
<b>LNIMPC</b>	27.774	28.289	30.749	22.76	2.285	-0.663	2.286	3.119	33

*Source: Authors Computation 2020*

## **Unit Root Tests**

In testing the time series properties of the variables in the model, this paper performed a univariate regression analysis using conventional unit root tests in order to ascertain whether each of these variables has unit root (non-stationary) or does not have unit root (stationary series). Following the summary results of the unit root tests presented in Table 2, it is clearly shown that the variables considered are a mixture of stationary I(0) and non-stationary I(1) series. Given this scenario, there is therefore a need for long-run relationship among the variables in each of the models, which the use of ARDL is capable of capturing.

**Table 2: Summary and Decision for Unit Root Test**

Variables	ADF Test Statistics (At Levels)	Critical Values @ 5%	ADF Test Statistics (At 1st Diff.)	Critical Values @ 5%	Order of Integration
MCU	-2.0956	-3.5629	-3.9062	-3.5628	I(1)
INFCP	-2.9834	-3.6032	-6.1601	-3.622	I(1)
TOP	-3.3319	-3.5577	-7.0098	-3.5628	I(1)
INT	-4.0742	-3.5742	-6.4761	-3.5628	I(0)
GFCF	-1.771	-3.5577	-4.9808	-3.5628	I(1)
LNIMPC	-2.2584	-3.5577	-6.486	-3.5628	I(1)

Note - The decision is made based on the estimation results with consideration to trend and intercept. I(0) represents stationary of a variable (i.e. significant at level) while I(1) denotes non-stationarity (i.e. significant at first difference)

Source: Authors computation 2020

### VAR Lag Order Selection Criteria

The optimal lag length of the variables included in the ARDL model with a critical band of 5% significant level, was selected based on the LR, FPE, AIC, SC and HQ, indicated an optimal lag length of three (3) as seen in Table 3.

**Table 3: VAR Lag Order Selection Criteria**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-434.648	NA	230829.5	29.376	29.657	29.466
1	-314.197	184.692	872.842	23.746	25.708	24.374
2	-253.825	68.422	235.639	22.121	25.765	23.287
3	-180.091	54.071*	51.540*	19.606*	24.931*	21.309*

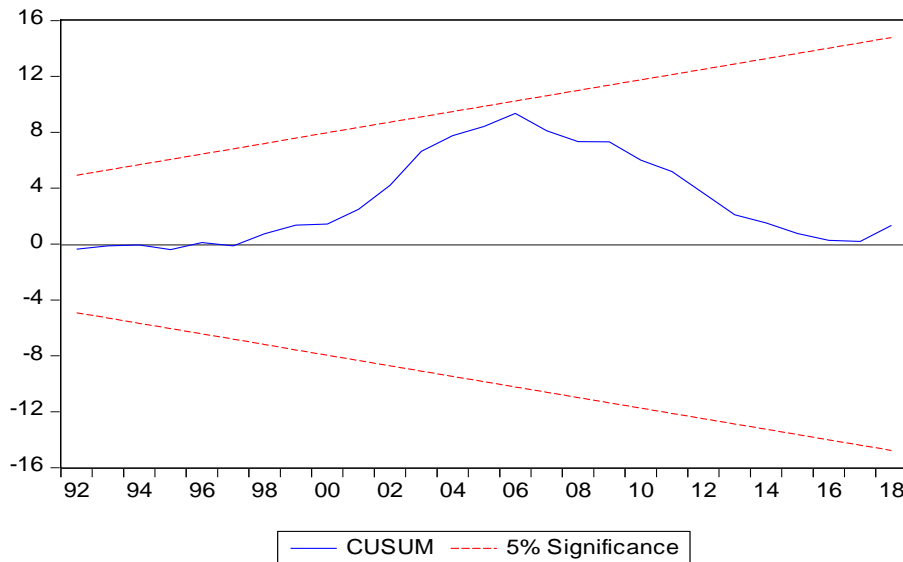
\*Indicate lag order selected by the criterion (each at 5% level). LR = Likelihood Ratio test; FPE = Final Prediction Error; AIC = Akaike Information Criterion; SC = Schwarz Information Criterion; HQ = Hannan–Quinn Information Criterion

Source: Authors computation 2020

### Stability Test

The Recursive CUSUM test results in figure 2 indicated no break in the regression coefficients and the departure of the parameters from the constancy is within the straight line that represents critical band at 5% significant level.

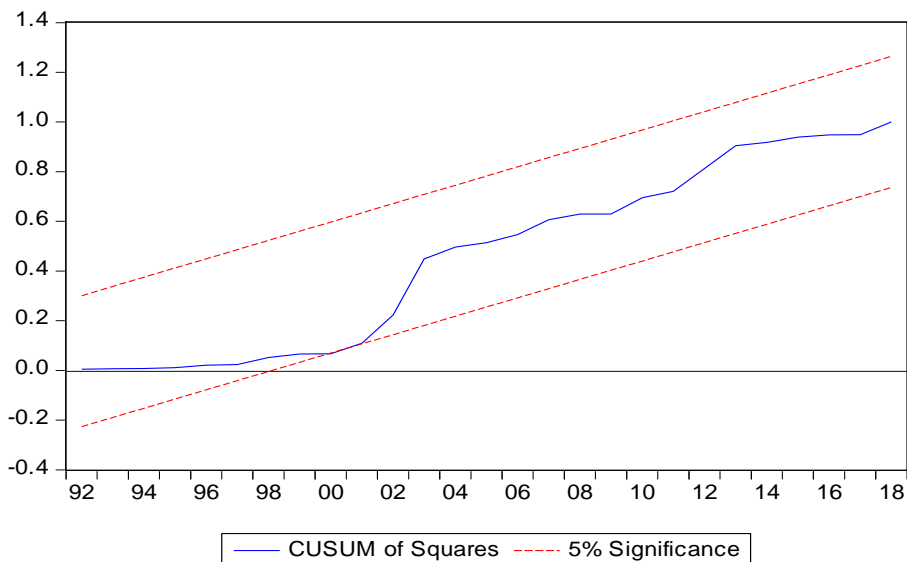




**Figure 2: Cumulative Sum of Recursive Residual**

Source: Author's computation 2020

The Recursive CUSUM of squares results in figure 3 indicated no break in the regression coefficients and the departure of the parameters from the constancy is within the straight line that represents critical band at 5% significant level.



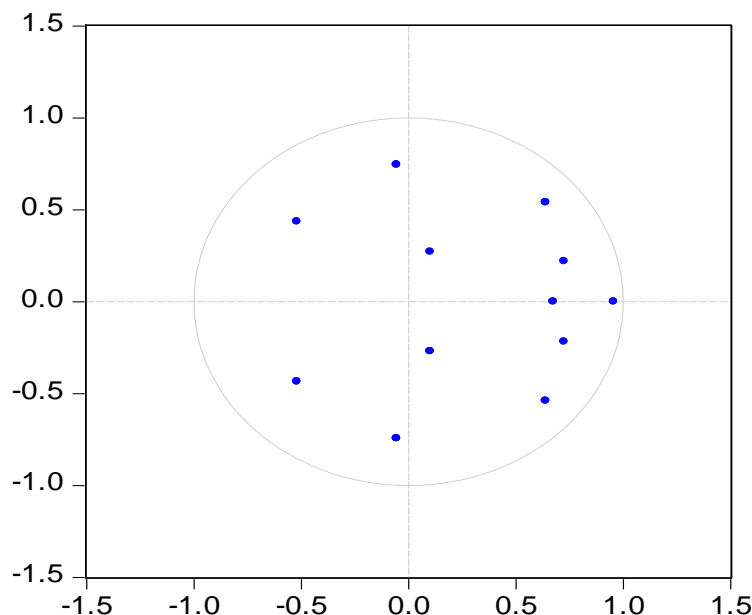
**Figure 3: Cumulative Sum of Squares of Recursive Residual**

Source: Author's computation 2020

### Inverse Roots

The inverse roots of AR characteristics Polynomial in figure 3 also shows the points are within the circle that represents critical band at 5% significant level.

**Inverse Roots of AR Characteristic Polynomial**



**Figure 4: Inverse Roots of AR Characteristics Polynomial**

Source: Author’s computation 2020

### Bound Test

To determine the existence of long-run relationship or trend between macroeconomic variable (MCU) in the model and selected variables (INFCP, TOP, INT, GFCF and IMPC), a co-integration analysis is performed using ARDL bounds test. In the case, the null hypothesis of no co-integration ( $H_0; \beta_0 = \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = 0$ ) is tested. In the model (Manufacturing capacity utilization), the results in Table 4 depict that the Wald F-statistic of 3.836 fall above both the upper and lower critical bounds of 2.62 and 3.79 at 5% level of significance as established by Pesaran et al. (2001). Based on this, we reject the null hypothesis and conclude that there is long-run relationship between the variables between 1986 and 2018.

**Table 4: ARDL Bound Test for Co-integration Analysis**

**Inflation**

**Wald F-statistic: 3.836204; K = 5**

**Dependent variable**

<b>F-statistic</b>		
<b>Bounds level</b>	<b>Lower bound I(0)</b>	<b>Upper bound I(1)</b>
10% critical bounds value	2.26	3.35
5% critical bounds value	2.62	3.79
2.5% critical bounds value	2.96	4.18
1% critical bounds value	3.41	4.68

Source: Author’s computation 2020

**Short Run Analysis**

The co-efficient of determination ( $R^2$ ) in table 5, shows the total variation in the dependent variable, manufacturing capacity utilization that is accounted for by the independent variables included in the model. The five independent variables explain about 99.33% variation in manufacturing capacity utilization. The adjusted co-efficient of determination ( $R^2$ ) is 0.967627, it implies that the explanatory variables are able to explain 96.76% of the total variable in the dependent variable. The value of the F-statistic is 38.68685 with the probability value of 0.000092%. The P-value of F-statistic is less than 0.05%. This means that all the independent variables have a jointly significant influence on the dependent variable. We reject the null hypothesis ( $H_0$ ) and accept the alternative hypothesis ( $H_1$ ). The value of Durbin-Watson statistics is 2.466570. It implies that there is no auto-correlation.

**Table 5: Short Run Coefficient of ARDL (3, 3, 3, 3, 3)**

<i>R-squared</i>	<i>0.993302</i>	<i>Mean dependent var</i>	<i>47.04633</i>
<i>Adjusted R-squared</i>	<i>0.967627</i>	<i>S.D. dependent var</i>	<i>10.25489</i>
<i>S.E. of regression</i>	<i>1.845121</i>	<i>Akaike info criterion</i>	<i>4.053529</i>
<i>Sum squared resid</i>	<i>20.42683</i>	<i>Schwarz criterion</i>	<i>5.174487</i>
<i>Log likelihood</i>	<i>-36.80293</i>	<i>Hannan-Quinn criter.</i>	<i>4.412133</i>
<i>F-statistic</i>	<i>38.68685</i>	<i>Durbin-Watson stat</i>	<i>2.46657</i>
<i>Prob(F-statistic)</i>	<i>0.000092</i>		

Source: Author’s computation 2020

## Long Run Analysis

Table 6 displays the long run impact of MCU. It showed that INFCP reduces/increases the impact of the MCU in Nigeria. The coefficient of INFCP is negative and statistically significant, which implies a percentage increase in INFCP decreases MCU by 1.05 percent and percentage decrease in INFCP increases MCU in Nigeria. This conforms to the empirical findings of Imoughele and Ismaila (2014) and Amaefule and Maku (2019). The main reason for this result is that majority of the manufacturing businesses in Nigeria as a developing economy are working below full capacity because inflation has eroded their working capital and profits. The money that should have been plough back into the business had been eaten up on arrival by inflation. The increase in the rate of inflation in the country, in addition to other extraneous variable has negatively affected the manufacturing output in Nigeria. An increase in trade openness sends a signal to the businesses which affects manufacturing capacity utilization. INFCP therefore, strongly affect MCU in Nigeria. The coefficients of TOP showed a negative relationship with MCU though statistically insignificant. GFCF and IMPC also showed a negative relationship with MCU but statistically significant. This implies that one percentage increase in TOP, GFCF and IMPC decreases MCU by 0.13 percent, 34.50 percent and 5.97 percent respectively conforming to the apriori expectations. Trade openness, gross fixed capital formation and import of goods and services affects manufacturing capacity utilization. Interest rate co-efficient showed a positive relationship with MCU but statistically insignificant. This implies that a percentage increase in INT increases MCU by 1.47 percent and the reverse also hold. When interest rate increases, manufacturing capacity utilization also increases as manufacturers would be more efficient in the use of resources such as capital, labour and information technology to be more productive to cover the interest payment on loans receive and also have sufficient working capital to thrive their businesses. This will make the manufacturing sector more vibrant, reduce her unemployment rate, prevent arbitrary distribution of wealth and income and invariable lead to economic growth and external viability.

**Table 6: Long Run Coefficient of ARDL (3, 3, 3, 3, 3)**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFCP	-1.051156	0.148741	-7.067003	0.0004
TOP	-0.133205	0.200023	-0.66595	0.5302
INT	1.468419	0.676842	2.169515	0.0731
GFCF	-34.501519	7.16213	-4.817215	0.0029
LNIMPC	-5.968093	1.910242	-3.12426	0.0205
C	318.418415	71.063203	4.480778	0.0042

Source: Author's computation 2020

## **Conclusion**

This study analyzed the relationship between inflation and manufacturing capacity utilization in Nigeria relying on annual data spanning 1986 to 2018. Exploiting techniques from the time series literature, our results revealed that in the long run, firstly, the inflation consumer prices had a significantly negative relationship with the manufacturing capacity which conforms to classical assumption on quantity theory of money that price fluctuation occurs as a result of changes in commodity production manner resulting from labour productivity. Secondly, trade openness has a negative and insignificant relationship on the manufacturer's capacity utilization. Thirdly, gross fixed capital formation and import of goods and services has a negative and significant relationship with manufacturing capacity utilization. However, interest rate has a positive but insignificant relationship with manufacturing capacity utilization. From the variables used to measure the relationship between inflation and manufacturing capacity utilization, it is concluded that the policies put in place by the central bank should be such as to reduce the impact of inflation on the manufacturing sector as it is seen that it has been negatively and significantly affecting the capacity and eventual productivity and performance of the manufacturing sector in Nigeria. The bounds test results showed that there is long term relationship among the variables.

## **Policy Recommendations**

Based on the results of the study, the following recommendations are hereby proposed:

- i. A sustainable inflation rate that will spur manufacturing output should be maintained in Nigeria. This will reduce its negative impact on the manufacturing capacity utilization and enhance improvement in the manufacturing output.
- ii. Strategic framework for the development of the manufacturing sector should be entrenched. This will assist in short, medium and long term plan of the sector for effective capacity utilization.
- iii. The available infrastructure in the area of electricity supply and road network should be improved upon in Nigeria for optimum capacity utilization in the manufacturing sector.
- iv. The Central Bank of Nigeria (CBN) should adopt policies that would decrease the current inflation rate by enabling stable prices which will play a catalytic role for growth in manufacturing capacity utilization, and eventually bring about economic growth in the country.

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## Organizational Commitment as Predictor of Knowledge Sharing Behaviour in Organizations

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### Abstract

Knowledge is an essential resource in an organization, thus sharing it across organizational members is a *sine qua non* for success in an environment that is competitive. The study adopted a descriptive survey design to explore the relation between knowledge sharing behaviour and organizational commitment. Participants were employees of the Petroleum Training Institute, Effurun, Delta State, Nigeria. Data collection instrument was a structured questionnaire, which was administered on one hundred and eighty-two respondents in their place of work. Multiple regression was used in testing hypotheses using STATA 13.0 software. Results revealed that organizational commitment explained 12.4% variance in knowledge sharing behaviour, indicating a positive and significant relationship between organizational commitment and knowledge sharing behaviour. Furthermore, affective commitment was positive and significantly related to knowledge sharing behaviour, whereas a negative but insignificant relationship existed between normative commitment and knowledge sharing behaviour. In addition, continuance commitment was found to be positively and insignificantly related to knowledge sharing behaviour. The study, therefore recommended that organizations should place emphasis on developing affective commitment among employees as this will enhance knowledge sharing behaviour.

**Keywords:** Affective commitment, Continuance commitment, Knowledge sharing behaviour, Normative commitment, and Organizational commitment.

### Introduction

The knowledge economy of today's global business world highlights the emphasis on knowledge as an essential resource for actualizing the objectives of organizations (Daland, 2016). Hence, using these knowledge assets effectively would lead to improved performance. Knowledge as described by several scholars connotes a mixture of experiences, insights, imagination, and information (Ikenwe & Igbinoia, 2015). It also represents the manner that individuals in a social setting comprehend how they act (Swan, 2008). Within the literature, knowledge and information have been used interchangeably. Wang and Noe (2010) noted that knowledge includes: thoughts, reality, skill and discernment applicable to individual, group, and business performance. By its nature, employees' knowledge is personal and if employees leave an organization (either by retirement, death, or dismissal), they go with the vast knowledge acquired overtime. This



can make organization loose valuable resources. It is therefore necessary for knowledge to be shared among organizational members. Thus, converting personal ownership of knowledge by employees to organizational ownership.

Although knowledge sharing is important for organizational survival, employees are inclined to hoard knowledge because of the competitiveness within organizations (Olatokun & Nwafor, 2012). While several factors may affect the willingness of employees to share their knowledge, Hislop (2003) noted that the degree of commitment among employees can influence their behaviour towards knowledge sharing. Thus, this study investigated the extent to which organizational commitment can predict the knowledge sharing behaviour of employees. Furthermore, the study examined the effects of affective, continuance and normative commitments on knowledge sharing behaviour.

## **Literature Review**

### **Knowledge Sharing Behaviour**

The availability of knowledge to every organizational member is the main objective of sharing knowledge (Krongh, Nonaka & Rechsteiner, 2012). Thus, spreading knowledge throughout the organization is described as knowledge sharing (Hamidizadeh & Meibodi, 2017). Alaaraj, Mohamed and Bustamam (2016) described knowledge sharing as a social-cultural dissemination of ideas, skills and experiences throughout the various organizational units. Chen (2011) suggested that knowledge sharing is voluntary, and an activity involving the transmission of vital knowledge from an employee to another. Knowledge sharing behaviour can therefore be described as an individual's willingness to share his or her knowledge about organizational activities with other people in that organization. The voluntary nature of knowledge sharing makes it a type of citizenship behaviour, as it is discretionary and may not attract sanctioning if not performed.

According to Al-Shawabkeh (2018), knowledge sharing involves three aspects: the recipient of the transferred knowledge must recognize it; the receiver must exploit the transferred knowledge and finally, knowledge sharing can exist at the team, individual and organizational levels. Knowledge sharing usually takes place between all organizational stakeholders, including employees, customers, suppliers, government agencies and strategic partners. Thus, several benefits accrue to organizations: reducing error and increasing organizational learning (Ford & Chan, 2003); increasing team innovation abilities (Wang & Noe, 2010); new product development quality (Yang, 2008); and decreasing cost of production (Abzari, Shahin & Abasaltian, 2014). In organizations, knowledge sharing can take place through meetings, internet sites, blogs, e-mail, video-conferencing, chat, mentoring and seminar presentation. It is pertinent to encourage individuals' sharing of knowledge rather than hoarding it, which is prevalent in organizations (Lam & Lambermont-Ford, 2010). However, Andolsek and Andolsek (2015) observed that the process by which employees share their knowledge within organizations was still poorly understood.

## **Organizational Commitment**

Organizational commitment is an important factor to understand and explain the behaviour of individuals within organizations (Bakhshi, Kuldeep & Ekta, 2009). Its study is of utmost importance to managers in organizations, hence the 21<sup>st</sup> century has witnessed an increased attention being paid to it by scholars (Memari, Mahdieh & Marnani, 2013). Commitment according to Allen and Meyer (1990), is a person's desire to continue to work for an organization. Khan and Jan (2015) defined organizational commitment as the extent of faithfulness of employees to their organization. It is a psychologically constructed responsibility towards the purpose of setting up an organization by its employees (Chelliah, Sundarapandiyam & Vinoth, 2015). Fu and Deshpande (2014) noted that organizational commitment is an estimation of an individual's rapport with his or her organization. Furthermore, Armstrong (2012) described organizational commitment as the loyalty, bond, or attachment a person has towards their organization. Additionally, Egriboyun (2015) identified the following as features of organizational commitment:

- i. An individual's adopting and accepting an organizations mission and purpose;
- ii. An individual's desire to put in extraordinary effort or sacrifice for his/or her organization;
- iii. An individual's strong desire to retain membership of an organization;
- iv. An individual internalizing the values of his/or her organization; and
- v. When an individual strongly identifies with an organization.

Organizational commitment is, therefore, an employees' strong bonding relationship and emotional connection with his/ or her organization, such that organizational activities takes a prominent place in his/ or her life.

Although organizational commitment takes various forms, most researchers adopt Allen and Meyer (1990) conceptualization of three forms of organizational commitment: affective, continuance and normative commitment. The emotional closeness which any employee has towards his/her organization is known as affective commitment (Price, 2011). Employees who are affectively committed have a robust perception of affinity and identification with their organization, thus increasing their collaboration in the undertakings of such an organization (Rhoades, Eisenberger & Armeli, 2001). Also, affective commitment enables members of an organization to have the disposition to meet targets and remain in their organization (Korir & Kipkebut, 2016).

Continuance commitment results from employee's comparison of the cost of leaving versus that of remaining with their organization (Cetin, 2004). Thus, it refers to the realization of the value associated with pulling out of the organization. Furthermore, Coetzee (2005) has noted that continuance commitment is calculative by its very nature as it is hinged on employee's judgment of considering the risks and costs incidental with leaving an organization. Price (2011) suggested that continuance commitment occurs if employees believe they cannot get a better job or that their success is as a result of organizational

activities. They therefore remain with their organization because of their accumulated investment. When employees are committed to their organization because of a sense of obligation, it is called normative commitment (Cetin, 2004). Price (2011) argued that normative commitment occurs when rewards are given to employees in advance, thus making them reciprocate by devoting themselves to their organization. They believe it is morally right for them to remain with their organization because of what such an organization has done for them (Allen & Meyer, 1990).

After a review of the literature, Meyer and Maltin (2010) highlighted the following as benefits to organizations having a strongly committed workforce: lower turnover intention and absenteeism, higher job satisfaction and performance, good citizenship behaviour and commitment to supervisors, occupations, work teams and customers. Conclusively, organizations with highly committed employees outperform those with low levels of commitment.

### **Organizational Commitment and Knowledge Sharing Behaviour: The Nexus**

Highly committed employees have the tendency to add value to organizational activities by sharing their knowledge, which today is a source of competitive power for organizations (Lin, Zhang, Zhang & Zhou, 2017). Hence, research has shown that organizational commitment can predict the knowledge sharing behaviour of employees in any organization (Zaitouni, 2013). Empirically, Batainel and Alfalah (2015) established that employees' brand commitment positively influenced knowledge sharing in Jordan's Banks. Drawing a sample from Iranian manufacturing companies, Davoudi and Fartash (2012) analyzed the effect of organizational commitment on knowledge sharing. Their results revealed a significant positive relationship between these variables. Salleh, Ismail, Hamzah, Zahari, Mohammed, and Abdullal (2017) studied knowledge sharing behaviour of employees in Malaysian organizations, and observed that organizational commitment explained 58.9% variance in knowledge sharing. Several other researchers note the effective role played by organizational commitment in enhancing employees' knowledge sharing behaviour in Iran, Taiwan, and Pakistan (Abili, Thani, Mokhtarian & Rashidi, 2011; Han, Chiang & Chang, 2010; Saleem, Adnan & Ambreen, 2011). However, Mogotsi, Boon, and Fletcher (2011) reported that organizational commitment was not related to knowledge sharing behaviour in Botswana.

Sow, Anthony, and Berete (2016) argued that it was imperative to study the effects of the three component model of organizational commitment (Allen & Meyer, 1990) on knowledge sharing as these effects may vary. Casimir, Lee, and Loon (2012) noted that affective commitment was related to knowledge sharing of employees. Saleem *et al* (2011) reported that all the three dimensions of organizational commitment (affective, continuance and normative) were strong predictors of knowledge sharing attitude. Demirel and Goc (2013) study in Turkey revealed that although organizational commitment was strongly related to knowledge sharing, only emotional (that is, affective commitment) was

significantly associated with knowledge sharing. Furthermore, they found that continuance commitment was negatively and in-significantly related to knowledge sharing, while normative commitment was positively, but in-significantly related to knowledge sharing. The above contradictory findings motivated this study to re-examine the relationship between organizational commitment and knowledge sharing in Nigeria.

**Research Hypotheses**

The following propositions were tested in this study:

H1: There is a positive and significant relationship between organizational commitment and knowledge sharing behaviour.

H2: Affective commitment is positive and significantly related to knowledge sharing behaviour.

H3: Continuance commitment is positive and significantly related to knowledge sharing behaviour.

H4: Normative commitment is positive and significantly related to knowledge sharing behaviour.

**Model Specification**

$$ksb = f(ac, cc, nc) \dots\dots\dots 1$$

$$ksb = \Omega_0 + \Omega_1ac + \Omega_2cc + \Omega_3nc + \epsilon \dots\dots\dots 2$$

Where,

ksb = Knowledge Sharing Behaviour; ac = Affective Commitment; cc = Continuance Commitment; nc = Normative Commitment;  $\Omega_0, \Omega_1, \Omega_2, \Omega_3$  are coefficients;  $\epsilon$  = Error terms

**Research Methodology**

**Participants and Procedure**

The study adopted a descriptive cross-sectional design, since data were collected at a point in time. Participants were the employees of the Petroleum Training Institute, Effurun, Delta State, Nigeria. Data collection was carried out in the month of July, 2020, at a time the novel corona virus pandemic prevented most employees from going to work. Thus, a convenience sample was used in the study. One hundred and ninety copies of the questionnaires were distributed to employees present in their offices. However, only one hundred and eighty-two copies of the questionnaire, representing 96% were retrieved. Data analysis was therefore based on the collected number of questionnaires.

**Measures**

This study adopted scales used in previous studies. Knowledge sharing behaviour questionnaire items came from van den Hooff and de Ridder (2004) and consisted of eight items, using a five point Likert scale (1 = ‘Strongly Disagree’ and 5 = ‘Strongly Agree’). Organizational commitment scale came from Allen and Meyer (1990), which consisted of three dimensions (affective, continuance and normative commitment). Each dimension was measured by eight items each, using a seven point Likert scale (1 = ‘Strongly Disagree’

and 7 = ‘Strongly Agree’). However, reverse coded items ranged from 1 = ‘Strongly Agree’ and 7 = ‘Strongly Disagree’.

### Result of the Findings

The demographic characteristics of respondents are presented in Table1. Majority of respondents were males (58.2%), while most were in the age group of 20 – 29 years (54.4%). Majority of the participants were single (53.3%), while most of them have been working in the Petroleum Institute for between one year to ten years. Furthermore, most of the respondents were educated with only 3.8% holding primary or secondary certificates, 39.6% had OND/NCE/DIPLOMA, 38.5% held HND or Degrees, while 18.1% represented those with postgraduate certificates. In all, 64.8% were non-academic staff.

**Table 1: Demographic Characteristics of Participants**

Gender	Percentage	Cumulative Percentage
Male	58.2	58.2
Female	41.8	100.0
Total	100.0	
<b>Age</b>		
20 – 29 years	54.4	54.4
30 – 39 years	24.2	78.6
40 – 49 years	12.6	91.2
Above 50 years	8.8	100.0
Total	100.0	
<b>Marital Status</b>		
Single	53.3	53.3
Married	41.2	94.5
Divorced	1.7	96.2
Separated	2.1	98.3
Widowed	1.7	100.0
Total	100.0	
<b>Educational Level</b>		
Primary/Secondary School	3.8	3.8
OND/NCE/Diploma		
Degree(HND/BSC)	39.6	43.4
Postgraduate (Masters or	38.5	81.9
PhD	18.1	100.0
Total	100.0	
<b>Tenure</b>		
1 – 10 years	75.8	75.8
11 – 20 years	13.7	89.5
21 – 30 years	6.6	96.1
31 and above	3.9	100.0
Total	100.0	
<b>Nature of Work</b>		
Non Academic Staff	64.8	64.8
Academic Staff	35.2	100.0
Total	100.0	

Source: Fieldwork, 2020

Table 2 indicates the mean (M), standard deviation (SD), cronbach alpha ( $\alpha$ ), minimum and maximum values for each scale. The mean for knowledge sharing behaviour (ksb) was 3.72 (which was above the mid-point of 2.50), while organizational commitment dimensions have mean which ranged from 4.32 (continuance commitment, cc) to 4.43 (normative commitment, nc) and 4.65 (affective commitment, ac) respectively. These values exceeded the mid-point of 3.50 for each sub-scale. The standard deviation (SD) for each scale ranged from 0.72 (ksb) to 0.81 (nc), 0.83 (cc) and 0.99 (ac) respectively. As shown in Table 2, the cronbach alpha for the variables exceeded the 0.70 cut-off (Cronbach, 2004). These figures shows that the items for each scale were good measures for assessing the association between knowledge sharing behaviour (ksb) and organizational commitment dimensions (ac, cc, nc).

**Table 2: Observation (N), Mean (M), Standard Deviation (SD) and Cronbach Alpha ( $\alpha$ ) of Variables**

Variables	N	M	SD	$\alpha$	Min	Max
ac	182	4.65	0.99	0.78	1	7
cc	182	4.32	0.83	0.72	1	7
nc	182	4.43	0.81	0.79	1	7
ksb	182	3.72	0.72	0.82	1	5

**Source:** Fieldwork, 2020; ksb = Knowledge Sharing Behaviour; ac = Affective Commitment; cc = Continuance Commitment; nc = Normative Commitment

Table 3 shows the correlations between the dependent variable (ksb) and independent variables (ac, cc, nc). The correlation coefficients ranged from low to moderate, but significant at  $p < 0.05$ . Furthermore, the correlation coefficients between pairs of independent variables did not exceed 0.8, indicating the absence of multicollinearity (Senavirata & Cooray, 2019). The variance inflation factor (VIF) was also computed as shown in Table 4. The mean VIF did not exceed the cut-off ( $1.29 < 10.00$ ). This further confirms the absence of multicollinearity among the independent variables (Senavirata & Cooray, 2019).

**Table 3: Correlations among the study variables**

Variables	Ac	Cc	nc	ksb
ac	1.000			
cc	0.257	1.000		
nc	0.459	0.393	1.000	
ksb	0.435	0.135	0.009	1.000

**Source:** Fieldwork, 2020; ksb = Knowledge Sharing Behaviour; ac = Affective Commitment; cc = Continuance Commitment; nc = Normative Commitment

**Table 4: Variance Inflation Factor (VIF)**

Variables	VIF	1/VIF
ac	1.28	0.78
cc	1.19	0.84
nc	1.41	0.71
<b>Mean VIF</b>	1.29	

Source: Fieldwork, 2020; ksb = Knowledge Sharing Behaviour; ac = Affective Commitment; cc = Continuance Commitment; nc = Normative Commitment

**Hypotheses Testing**

The multiple regression analysis results are shown in Table 5. As shown in the table, 12.39% variance in knowledge sharing behaviour was accounted for by organizational commitment [F(3,178) = 8.39,  $p = 0.00 < 0.05$ ]. Therefore, H1 was accepted. Thus, organizational commitment was positive and strongly related to knowledge sharing behaviour of employees. Affective commitment was also positive and significantly related to knowledge sharing behaviour of employees ( $\beta = 0.26$ ;  $t = 4.60$ ;  $p = 0.00 < 0.05$ ). Therefore, H2 was accepted. This indicated that a strong and positive association existed between affective commitment and knowledge sharing behaviour. Although, the association between continuance commitment and knowledge sharing behaviour was positive, it was not significant ( $\beta = 0.07$ ;  $t = 1.13$ ;  $p = 0.26 > 0.05$ ). Therefore, H3 was rejected. This showed that a weak and positive relationship existed between continuance commitment and knowledge sharing behaviour. Furthermore, the association between normative commitment and knowledge sharing behaviour was negative and in-significant ( $\beta = -0.10$ ;  $t = -1.38$ ;  $p = 0.17 > 0.05$ ). Therefore, H4 was rejected. This indicated a weak and negative relationship between normative commitment and knowledge sharing behaviour.

**Table 5: Result of Multiple Regression Analysis**

```
. regress ksb ac cc nc
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Source	SS	df	MS	Number of obs = 182		
Model	11.5308978	3	3.84363259	F( 3, 178) =	8.39	
Residual	81.5426771	178	.458104928	Prob > F =	0.0000	
Total	93.0735749	181	.514218646	R-squared =	0.1239	
				Adj R-squared =	0.1091	
				Root MSE =	.67683	

ksb	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ac	.2626906	.0570706	4.60	0.000	.1500686	.3753126
cc	.0744306	.0661032	1.13	0.262	-.0560162	.2048774
nc	-.101801	.0739479	-1.38	0.170	-.2477284	.0441264
_cons	2.623137	.342979	7.65	0.000	1.946308	3.299965

Source: Fieldwork, 2020

## Discussion of Findings

Employee knowledge plays an important role in the effective functioning of organizations. Sharing the knowledge is crucial because of employees' mobility (in terms of retirement, dismissal, death or voluntary turnover) in today's organizations. Thus, sharing employees' knowledge enhances organizational success. This study empirically investigated the association between organizational commitment and knowledge sharing behaviour of employees at the Petroleum Training Institute, Effurun, Delta State, Nigeria. Findings of the study revealed that organizational commitment explained 12.4% in knowledge sharing behaviour of employees. This finding indicated that for employees to share their knowledge with organizational members, their level of commitment plays a vital role. Thus, highly committed employees may share their individual knowledge with colleagues at work. The significant association between organizational commitment and knowledge sharing behaviour found in this study is in agreement with the findings of previous scholars (Zaitouni, 2013; Davoudi & Fartash, 2012; Salleh et al, 2017), but deviates from the results of Mogotsi *et al* (2011).

When employees are emotionally attached to their organization, they are usually involved in activities that led to being good citizens. Affective commitment of employees to organizations results in positive actions taken by such employees, which results in improved organizational performance. The study found that affective commitment of employees was significantly related to employees' knowledge sharing behaviour. This finding concurred with the results of Casimir *et al* (2012); Demirel and Goc (2013). However, continuance and normative commitment of employees showed a weak association with knowledge sharing behaviour. Moreover, continuance commitment was positively related to knowledge sharing, while normative commitment was associated with knowledge sharing negatively. The reverse of these relationships were reported by Salleh *et al* (2017). This calls for additional research in the future.

This study was subject to some limitations, which should be considered when interpreting results. First, results were affected by common method variance as the data for all variables were collected from the same source. Secondly, a convenience sample from a single organization was studied. This might affect the generalization of findings. However, the study extended the literature by increasing understanding of how these variables are related in the Nigerian context.

## Conclusion

Based on the findings of this study, the following conclusions were made:

- i. Organizational commitment of employees in an organization strongly influences the behaviour of employees towards sharing their knowledge with members of their organization.



- ii. Employees with affective commitment towards their organizations are more likely to share their knowledge with colleagues.
- iii. Continuance and normative commitment of employees have little influence over their behaviour to share knowledge.

Thus, when employees display a high quality of commitment toward their organization, there is the tendency for them to share their knowledge rather than hoarding it.

### **Recommendations**

Knowledge which resides in employees need to be converted to organizational knowledge by sharing it, as this will improve organizational growth and performance. It is therefore recommended that:

- i. Managers of organizations, especially at the Petroleum Training Institute, Effurun, Nigeria should be trained on the nature and methods of ensuring high commitment level among employees.
- ii. Organizations should encourage and reward employees with affective commitment.
- iii. Future research should examine the relationships between continuance commitment, normative commitment and knowledge sharing behaviour.

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## **Towards Overcoming Challenges of Risk Communication on Covid-19 Pandemic in Nigeria**

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### **Abstract**

This study focuses on overcoming challenges of risk communication on covid-19 pandemic in Nigeria. Taking a qualitative approach, the study observes that many efforts by government and other development partners have failed in gaining the support and cooperation of their target beneficiary groups as a result of different factors but more fundamentally as a result of inappropriate and inadequate application of communication. The study, anchored on the cognition dissonance-consonance theory, reveals that the fight against covid-19 by the government of Nigeria is far from being successful consequent upon people's refusal to even believe in the existence of covid-19 and adopt preventive measures put in place to check its spread. This failure, the study believes is caused by inability of the government to apply the right communication strategies in engendering the desired response. The study, therefore, recommends many behavioural change communication strategies among which include application of integrated marketing communication approaches and use of opinion, traditional and religious leaders in this regard.

**Keywords:** Cognition Dissonance, Covid-19, Pandemic, Risk Communication and Risk Management.

### **Introduction**

It may appear to be a waste of time and energy reiterating that the ability of man and his environment to serve and develop is dependent on one fundamental factor of communication. When one of the former American Presidents, Thomas Jefferson made a philosophical declaration that if faced with the problem of making a choice between government and information, he would not hesitate to forgo government; a statement that is very famous among communication scholars, he was only attesting to the indispensability of communication to society. Collaborating this belief, Chiakaan and Ahmad (2014) have stated that "no society can survive and advance without communication." Sambe (2016) also posits in support of this position that communication serves as an instrument or a vehicle of social interaction as it helps us to understand ourselves and keep in touch with others. Eyre (1983) in Ashiekpe (2012) while supporting the views of others, notes further that communication provides a means by which individuals and organizations act and interact; exchange information and ideas; develop plans, proposals and policies; make decisions and manage resources towards the attainment of set goals and objectives.

The ongoing discourse has fundamentally two faces. It implies that the survival, growth and development of any society depends on adequate and effective communication. It also implies that communication is a powerful instrument of development. The recognition and appreciation of communication, in this regard, is what, according to famous communication scholars like Grunig (1992) and Lantican (2003), Ugande (2007), Chiakaan and Tsafa (2020) and others has made communication to be used by government and development agencies generally in order to attain their goals of improving on the welfare of people and society. This is what is referred to as development communication or communication for development.

Development agencies communicate, according to James, Ode and Soola (1990) in Sambe (2016) for different purposes of informing, educating, entertaining, persuading and so on. Summarily, communication by development agencies, including government is aimed at changing the behaviour and attitude of a group of people target for a particular policy or programme towards accepting and supporting such a policy for its success. This implies that communication has to be not only effectively applied but it also has to be strategically applied. Where communication is not applied as desired, no matter how beneficial a policy may be, it may suffer resistance and rejection by the people target to benefit from it. This situation often arises particularly where communication is aimed at making a target group adopt a particular habit or lifestyle that can save it from a particular danger.

When people are being communicated with in order to prevent them from incurring risk associated with certain practices, problems and behaviours for the interest of their health and general wellbeing economically and socially inclined, it is professionally referred to as risk communication. The World Health Organization (WHO) (2020) defines risk communication as the exchange of real time information, advice and opinions between experts and people facing threat to their health, economic or social wellbeing.

Human life in society is full of many circumstances endangering its general wellbeing. This explains why communication is required in managing such circumstances or issues as the case with covid-19 pandemic in Nigeria. Historically, coronavirus, otherwise referred to as Covid-19 broke out in Wuhan, a city in China in December 2019. The disease was declared a pandemic in February 2020 by WHO as it fastly spread and affected the whole world claiming millions of lives. Covid-19 has actually led to unprecedented international public health challenges including mandatory social distancing and prolonged school closures (Abrams and Greenhawt, 2020). Contributing to the history and challenges associated with the Covid-19 pandemic, Chiakaan and Tsafa (2020, p.13) state;

The Covid-19 was so dreadful that almost all nations closed their borders, restricting citizens of other countries from entering their lands. Educational, football, political, economic, religious, in fact, major activities were suspended. The disease brought untold hardships on the whole world.

In Nigeria, the first index case of Covid-19 was recorded on February 27, 2020. The virus was brought into the country by an infected Italian citizen who arrived Lagos from Europe. Since then, the virus has spread throughout the country with over 58,000 confirmed cases as at 28<sup>th</sup> September, 2020 according to the Nigerian Centre for Disease Control (NCDC). The most dreadful aspect of the Covid-19 is unavailability of a drug or vaccine that can cure or prevent its spread. This pathetic situation implies that the only means available for managing the highly contagious virus is communication. Government and relevant agencies automatically employed communication in creating awareness, building understanding and persuading Nigerians to accept and adopt measures that can prevent them from not only contracting it but preventing its spread. Some of the measures in this regard put in place include;

- i. Internal lockdown of the local economy
- ii. Closure of schools, churches, mosques, markets and social gatherings of any type.
- iii. Social distancing, maintaining 2 metres distance
- iv. Frequent washing of hands under running water and use of hand sanitizers.
- v. Isolation of infected persons.
- vi. Testing and contact tracing
- vii. Mandatory use of face masks
- viii. Avoid touching of eyes, nose and mouth.
- ix. Cleaning and disinfecting of high-touch surfaces such as doorknobs, light switches, electronics and counters.
- x. Covering of mouths and nose with one's elbow or tissue when coughing or sneezing.

Fundamentally, the outbreak of Covid-19 has greatly affected the general behavioural pattern of humanity with increasing need to adjust and readjust on the day-to-day behaviour of Nigerians. This has resulted in what is now referred to as the 'new normal' which is a range of new behavioural pattern required to control the virus. With the relaxation of the Covid-19 lockdown resulting in reopening of the economy and schools, the need for accurate and effective communication becomes more necessary in order to reduce the chances of spike of the virus. Incidentally, communication efforts by government and other relevant stakeholders in this regard seem not to be yielding fruitful results thereby creating fears that the country may likely experience another total lockdown. This fear, as expressed by government, is as a result of the non-cooperative attitude of Nigerians in adopting measures that could halt the rampant spread of the disease. This implies that communication aimed at managing the risks associated with Covid-19 has failed. This further, more importantly, implies that there are some challenges facing risk communication in this case. How the challenges can be overcome is the thrust of this study.

## **Statement of Problem**

Risk communication management is better explained as the kind of communication that is aimed at making people adopt measures that can prevent them from anything that can serve as a threat to their health, economic and social wellbeing (WHO, 2020). Usually, communication according to many scholars including Ashiekpe (2012), Aliede (2012), Sambe (2016) and Glik (2007) does not record success on the platter of gold as it is often bedevilled with some challenges such as over multiplicity of sources of information, resistance, cultural influence, lack of accurate and effective information and so on which must be overcome. Communication effort by the Nigerian government and other relevant stakeholders towards managing Covid-19 virus in Nigeria, therefore, was far from being successful due to certain challenges. This position is premised on the belief of many Nigerians openly expressed that Covid-19 was a rich man's disease; it did not exist in Nigeria; government was only hiding under the guise of the virus to cover its underperformance and many factors. Their non-cooperative attitude with the government, in this regard, was reflected in their nonchalant attitude towards adopting measures that were designed to prevent them from not only contracting the disease but also preventing its spread. This situation even created apprehension that the Federal Government even thought of locking down activities in the country for the second time. Since by its nature, risk communication often faces challenges thereby leading to national disaster, it becomes expedient to come up with measures that can address the challenges. This study, therefore, provides a panacea to the challenges of risk communication management with emphasis on Covid-19 pandemic in Nigeria.

## **Conceptual Clarification**

### **Risk Communication Management**

Although there are myriad definitions of communication, Ajala (2001) has noted that examining them critically will reveal one thing about communication which is information transmission. This implies that communication deals with message or information transmission. If this position is agreed with, it therefore means that two parties are involved in the process of communication. Baran (2001) identifies the parties as sender and receiver. The sender, otherwise referred to as the communicator, is the one, according to Sambe (2016) with an idea or message to share with the receiver. The message being shared, in this regard, implies that communication is not a one-way traffic; it does not begin from the sender and ends with the receiver. When the receiver receives the message from the sender, he interprets and responds to it in form of feedback. Feedback in the process of communication is very important because it makes communication to be complete and genuine. It makes the sender of the message determine whether his message is understood or not; it also makes the sender to determine the readiness or not of the receiver to partake in the communication and do what the sender wants him to do or not (Ahmad, 2014).



Any communication that does not care for feedback is equal to propaganda and is likely to fail. This belief is what informs communication scholars such as Wright (1975), Sambe (2016), Ugande (2007), Soola (2003) and many others to submit that any definition of communication that neglects communication as a sharing exercise is not only dubious, unacceptable but unprofessional. Wright, for instance, defines communication as a social process that is fundamental and vital to human survival. Fiske (1990) in Okunna (1999, p.5) considers communication as “a social interaction through message.” Where communication is a process, it connotes the fact that there is interaction between the parties thereby making it possible for them to understand themselves. From a sociological perspective, this implies that communication brings about understanding, acceptability and cooperation.

Armed with the general definition of communication, it becomes a less herculean task to come to terms with what risk communication management entails. From a common sense perspective, risk communication management simply entails the application of communication approaches in managing a situation that can endanger the lives of people medically, economically, socially and even politically. It is about effective and adequate utilization of communication by a development agency, governmental or non-governmental organization in ensuring safety of lives and properties leading to an economically, socially and politically healthy environment for development purposes.

In line with this submission, the WHO (2020) defines risk communication as “the exchange of real-time information, advice and opinions between experts and people facing threats to health, economic or social wellbeing. Also sharing a similar position, Eisenman, Cordasco, Asch, Golden and Glik (2007) have defined risk communication as “the process of passing information on hazards to potentially exposed individuals, groups and communities within the framework of public health and environmental disaster response.”

Fundamentally, hazard prevention and management is the concern of risk communication. Information, based on the foregoing discourse, is required from experts, authorities and or government to concerned people about an issue or occurrence that can endanger them and the society in one way or the other. This automatically brings to the fold that information from government, its agencies and other related ones about covid-19 pandemic in Nigeria is the jurisdiction of risk communication management.

Information, in this regard, is expected to be very accurate, usually originating from constituted authorities or bodies or experts so as to save lives, properties and guarantee the survival and growth of society economically and socially. Information is required to arrest rumours. Rumour does not have authentic source; it usually has multiple and unidentified sources with destructive tendency. In corroborating this view, Briand (2020) states that risk communication is an investment; a preventive measure, a vaccine against rumours and misinformation.

## **Covid 19 Pandemic**

There is hardly any discussion in Nigeria and, of course, the whole world that can take place without the word 'covid 19' being mentioned. Media stories in the broadcast, print and social are dominated with covid-19. Incidentally, many people in Africa and Nigeria particularly, if asked what covid 19 is, can simply refer to it as China's disease "a rich man's disease," "a Whiteman's disease" and so on. Yes, even though they may not be totally wrong, the truth is that in a true search for the definition of the concept, their positions cannot be accepted. The World Health Organizations (2020) defines covid-19 which is also referred to as coronavirus as "a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS)." The coronavirus based on the WHO's submission are viruses belonging to one family which usually, if contracted, attack the respiratory organs in the body resulting in difficulty in breathing. The disease is associated with common cough and sneeze, thereby making it to be highly contagious. It spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes (WHO, 2020). Media reports from the Nigerian Centre for Disease Control (NCDC) and WHO have shown that people who are infected with coronavirus usually show the following common signs; fever, cough and tiredness. Early symptoms can include loss of taste or smell. Other symptoms can include shortness of breath or difficulty in breathing, muscle aches, chills, sore throats, running nose, headache, chest pain and pink eye (conjunctivitis). The severity of the symptoms could range from very mild to severe.

Even though several efforts have been made and are being made by experts to develop a drug or a vaccine that can either cure people or prevent them from contracting the disease and halting its spread, all the efforts are yet to yield a positive outcome. The number of infected persons in Nigeria and globally grows on a daily basis. This implies that accurate information is the only means of managing the disease currently. Information is required to keep people aware of the dangers associated with the disease, sources of contracting it, where to go in case of contraction, and many other things associated with the disease.

## **Theoretical Framework**

This study is anchored on the constituency theories. The constituency theories are so called because they offer similar explanations to human behaviour in relation to a message that seeks to achieve change. Four theories exist in this regard; they are the cognitive dissonance theory formulated by Leon Festinger in 1957, balance theory by Fritz Heider in 1946 and 1958, consistency theory by Charles Osgood and Percy Tannenbaum in 1955 as well as affective cognitive consistency theory formulated in 1956 by Resenberg (Wiley Library, 2013).

From a common sense perspective, the theories are of the position that human beings have belief system which they hold on and which they feel is the best. Unfortunately, a message that is meant for them that challenges such a belief or cognition may be likely rejected.

Ramaswamy and Namakumari (2009, p.661) further shade light on the consistency theories thus;

The consistency theories rest on basic ideas that man seeks consistency, balance and harmony in his belief system. He cannot tolerate inconsistencies and imbalance for long. He always tries to solve the inconsistencies --- when (they) occur between the existing belief system of the individual and new information to which he gets exposed, the given attitude will tend to change in such a way that the inconsistency gets resolved.

Additionally, Chiakaan and Ahmad (2014, p.9) have stated that “communication may fail if the source delivers a piece of information which challenges the belief of the receiver, any message that is contrary to what the receiver has already known and is used to, is likely to be rejected.” Usually, met with this kind of challenge, the receiver will go out seeking confirmation from other sources in order to overcome the tension he is subjected to.

Fundamentally, in order to solve dissonance oriented problem, Sambe (2016) and other behavioural communication scholars have suggested that the communicator of the message should be seen by the receiver as not only being credible but honest and faithful. The communicator is also expected to apply the principle of reinforcement rather than condemnation in changing the behaviour of the receiver.

The relevance of consistency theories to this studies lies in the fact that they provide a guide to government and other agencies involved in the use of communication to make Nigerians believe and adopt measures that can prevent the spread of covid-19 on how they can be successful in this regard. This is because the major problem confronting information on covid-19 is resistance.

### **Challenges of Risk Communication Management in the Face of Covid-19 in Nigeria**

The Federal Government of Nigeria, through the President, Mohammadu Buhari and his assistants, as reported severally by the media, have expressed fear that Nigeria might still be experiencing a second wave of coronavirus rage if care is not taken. The government in this regard, is thinking about locking down activities in the country for the second time. This position clearly states that the battle against the coronavirus is far from being a success. Obviously, the conduct of Nigerians in public places including political rallies, schools, markets, religious gatherings and other gatherings does not show that they care about covid-19; many cannot wear face masks; cannot avoid shaking of hands, care less about maintaining social distancing and so on. This is a clear indication that communication aimed at managing covid-19 by the government is a failure. Of course, this failure is as a result of many challenges which include;

- i. Resistance:** Resistance is a key challenge to risk communication. Often people have to adopt a particular lifestyle or sacrifice time and other resources for the interest of the change that is expected of them. Changing one’s behaviour or

lifestyle, does not come easy; it is always faced with resistance. This is, therefore, one of the fundamental factors that is hindering the success of communication against covid-19 in Nigeria. Nigerians find it strange to distance themselves, avoid shaking of hands, keep away from their true relatives and so on. These are automatically against the culture of Nigerians, hence the rejection of messages in respect to the covid-19 virus. Often, when a message is contrary to the cultural belief of a group it is meant for, resistance, as reveals by Sambe (2016), occurs. Also in acknowledgement of resistance as a key issue in risk communication, Moemeka (2000, p.24) states;

There are major causes of resistance to change. Lack of work ethic, or competitive spirit, socially sanction unwillingness to accept new ideas and lack of socialization in certain key values like upward mobility and achievement, motivation as well as strong belief and trust in traditional ways of doing things constitute constant barriers.

- ii. **Lack of Full Awareness:** When there is lack of adequate and effective application of communication strategies by a development agency concerning a programme it is out to execute for the interest of a target group, there is every possibility that it cannot succeed. The failure is necessary as the target group meant to benefit from the programme will not be adequately exposed to it. The target beneficiary group, because of lack of exposure to the programme, will be unwilling to cooperate and participate in it. This problem appears to be another challenge to communication strategies by government against covid-19 in Nigeria. The government does not employ the right communication approach adequately to create full awareness, build understanding, stimulate interest and acceptability as well as participation in the covid-19 project. The lack of awareness by majority of Nigerians also results in what development communicators call psychological barriers as they cannot support the programme against covid-19 from their hearts individually.
- iii. **Lack of Trust and Confidence in Government:** The dominant opinion of Nigerians expressed in the media and different fora show that they do not have trust and confidence in the government. This is based on their perceived failure of the government to deliver on its promises. Many Nigerians are crying of lack of security, good roads, fallen standard of education, decayed health care system, high corruption and so on. These have made them not to have trust and confidence in the current government especially as it keeps promising a better and improved performance. Nigerians cannot believe information on covid-19 due to their perceived incredibility of the government. Source credibility is a very key ingredient of communication success in this regard.
- iv. **Poverty:** Added to lack of trust and confidence in the government by Nigerians is high poverty. Mohammed (2017, p.21) asserts that; the nature of extreme poverty is recognized by very low income, subsistence and unskilled wage

labour as the dominant income source, food as the dominant consumption good, low education and high illiteracy, minority language group status and rural location point to an unsustainably high cost and relatively low benefit of direct internet service provision through tele-centres to the poor.

From a very simple perspective, poverty can be described as a situation where a person or community members have a very low income base that makes it impossible for them to meet their basic needs of food, clothing and shelter (Chiakaan & Tsafa, 2020).

It is perhaps waste of energy to say that there is high poverty in Nigeria. Covid-19 pandemic incidentally has come when poverty is the order of the day in Nigeria. Many Nigerians cannot afford food, clothes, accommodation, education, water, electricity and so on. In this precarious and pathetic situation, there is a lockdown order, preventing Nigerians from going out and struggling for their daily needs. This, no doubt is met with stiff resistance.

- v. **Rumours and too much Information:** Rumours are unverified accounts or explanations which spread from person to person, but whose veracity may not be quickly or even confirmed. The outbreak of covid-19 in the world and its reported presence in Nigeria are accompanied with various stories from different unconfirmed and unreliable sources. This is worsened by the activities of citizen journalists on the social media. There are so many pieces of information on the social media whose sources are difficult to verify. Some stories about the covid-19, in this regard, are that the disease can only be contracted by old people; it can only kill old people; the disease is ordinary cough and catarrh that people are used to; the disease is only meant for the rich; the disease can be early killed by hot water, ginger, onions, pepper and alcohol. There is too much information about the disease that people find it difficult to identify which one is authentic and reliable and which one is not.
- vi. **Unstrategic Communication Approach:** From all indications, it appears that the government is not very strategic in applying communication in the fight against covid-19. Risk communication or crisis communication, as it is sometimes called, has to be strategically inclined. Chiakaan and Chile (2015) posit strategic communication as the kind of communication that is unique as it is specially planned, designed and applied towards achieving a specific objective. In strategic communication, depending on the objective of the communication, two or more approaches may be required. This also calls for using the right media to reach the target group with messages. A critical observation of the communication strategy used by the government in the fight against covid-19 in Nigeria will reveal that government is more inclined to creating awareness about covid-19 and persuading Nigerians to accept and

adopt preventive measures through news, public announcements and advertising with the broadcast media of radio and television being used in this regard. The social media is also being used especially in texting messages by NCDC about the covid-19 to Nigerians.

While these communication approaches and the media adopted are appreciated, professionally, given the magnitude of the disease, they remain inadequate in mobilising Nigerians fully against the pandemic. Over reliance on broadcast media and to some extent, social media is, therefore, another challenge faced by risk communication about covid-19 in Nigeria.

### **Communication Approaches in Managing Covid-19 in Nigeria**

In the rendezvous of victory, it is said that everybody's participation is required. This simply implies that covid-19, being a national issue needs collective attention and efforts in order to successfully manage it. An Integrated Communication approach which Belch and Belch (2018) refers to as Integrated Marketing Communication (IMC) should be sincerely and committedly applied. Adopting this approach requires the following;

- i. Advertising:** Advertising has the power of not only creating awareness but it also has the power to influence Nigerians to believe that covid-19 is real and adopt measures designed to halt its spread. Advertising messages, in this regard should pass through different media including, radio, television, newspapers, magazines, social media, posters and so on. Apart from direct advertising, corporate advertising can be very helpful as it has the capacity of influencing believability more easily.
- ii. Personal Selling:** This requires direct face-to-face contact with Nigerians with information about covid-19. Government agents, especially health workers can go out and interact with Nigerians, especially those in the rural areas, explain to them what covid-19 is and what can be done to prevent contracting and spreading it. The advantage of this strategy is that the doubting Nigerians will have the opportunity to not only have physical interaction with experts but also hear from them instead of other unknown unverifiable sources.
- iii. Public Relations:** Among the various definitions of public relations that gain acceptability from Nwosu (2004), Keghku (2005), Chile (2003) and other scholars is the definition that posits public relations as “good deeds, publicly appreciated.” This implies that when a government, company or agency is known for good performance; living up to its promises, it can be appreciated by its publics. Where this is the case, people can have trust and confidence in such an agency. The benefit of the trust and confidence is that the publics can never hesitate to patronise whatever comes from such an agency. Incidentally, the Nigerian government is seriously suffering from trust deficit. This has made people to be doubtful about whatever message that comes from it. People cannot

believe the government that covid-19 is real; they think that the government is only lying to collect money from local and international donors for the selfish interest of the cabals. The government should, therefore, strive to achieve credibility which is a product of political public relations.

- iv. **Sales Promotions:** This requires embarking on such other activities that can assist the government in reaching Nigerians with information on covid-19 and influencing them to adopt preventive measures against it. Part of sales promotion here can involve sponsoring activities that can help in this regard. It also involves, apart from media campaigns, employing communication experts, artists such as musicians and comedians to come out with pieces of music and embark on other activities that can help communicate information about covid-19 adequately and persuasively.
- v. **Integrated Media:** Messages and campaigns on covid-19 should not be restricted to a particular medium or selected media; they should not be channelled only through the conventional media of radio, television, newspapers, magazines and posters; the other media such as social and traditional media should also be employed.
- vi. **Involving Leaders:** Traditional, opinion, religious and leaders of various groups and associations can help in creating awareness and influencing their people to adopt measures that can help in fighting covid-19 in Nigeria. This position is anchored on the two-step flow theory of communication.

## **Conclusion**

This study has examined measures towards overcoming challenges of risk communication on covid-19 pandemic in Nigeria. The study is findings reveal that the use of communication by government to ensure that Nigerians believe in the existence of covid-19 in the country and adopt measures put in place to prevent them from contracting and spreading it has not been successful. Currently, Nigerians still do not feel that coronavirus is real. They have different negative perceptions about the disease despite efforts by the government to change these perceptions to positive using the tool of communication. Incidentally, government inability to be successful, in this regard, is fundamentally a product of inadequate and ineffective application of communication among other factors. In order to be successful, in changing the behaviour of Nigerians towards covid-19, appropriate risk communication approaches as recommended earlier should be employed by the government. Government should employ the services of communication scholars fully in designing and implementing persuasive communication campaigns that can create awareness and convince Nigerians to believe in the existence of covid-19 and cooperate in the fight against it.

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## Health Indices and Nigerian Economic Growth

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### Abstract

The investment in health is expected to contribute to economic growth through improvement in the life expectancy, reduction in absentees at work due to ill health of children and mothers, higher productivity, higher disposable income due to reduction in health expenses and reduction in mortality rates. However, empirical literature on the health and economic growth in Nigeria are mixed. Some studies reported inverse relationship while many others established direct impact. This, therefore, encouraged many attentions on the issue of Nigerian health in the literature. This study examined an impact analysis of health indices on the Nigerian economic growth. An empirical investigation was conducted using time series data on Gross Domestic Product, Infant mortality rate, Maternal mortality rate, Human Development Index, Neonatal Mortality rate, Under-5 Mortality rate and Life expectancy from 1986 - 2018. The technique of estimation employed in the study was Ordinary least square (OLS) method. A significant relationship between infant mortality rate and economic growth in Nigeria was established while an inverse relationship among neonatal mortality rate, under-5 mortality rate, life expectancy, human development index and economic growth in Nigeria was recorded. The study revealed that health indicators have a significant impact on economic growth. It was therefore, recommended that on-job training, seminars and workshops can be used to increase the Human Development Index of Nigeria as this can lead to sustainable economic growth. Also, proper public enlightenment and education of mothers on best health care practices is imperative for infant and child survival.

**Keywords:** Economic growth, Infant mortality rate, Under-5 mortality rate, Life expectancy, Neonatal mortality rate, Human Development Index, OLS.

### Introduction

Health, according to the World Health Organization (WHO) in 2000 is the state of being free from physical or psychological disease, illness or malfunction. It is a state of well-being or balance. The WHO further defines it as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. The WHO, however, confirmed that many components are entrenched in good health which has deep meaning different from least disease, as this is more in keeping with poor health. In fact, the

definition of health has been modified to include the ability to live a socially and economically productive life.

The growth of health in the development process of any economy cannot be overemphasized and according to Salami *et al* (2017) opined that only well-educated and healthy people produce optimally and contribute to national output. Also, according to Weil (2014); the simplest channel of casualty running from health to economic growth is through workers' productivity. Individuals who are healthier are able to work more effectively both physically and mentally. Further, adults who are healthier as children will have acquired more human capital in the form of education which will optimally use in further production of goods and services.

Health indices are crucial part of an economic development, especially in developing countries. Health Indices such as quality of life, life expectancy, infant mortality rate, maternal mortality rate, under 5 mortality rate, human development index (HDI) of an economy are being provided solution through three basic health sectors of an economy which are: primary health care, secondary health care and tertiary health care. All these sectors through their functions provide adequate measure to increase the labour force of the nation and invariably the level of production of the country. Therefore, it is necessary to appraise the health indices as an important factor in the Nigerian economic growth process.

Nigeria's HDI value for 2017 is 0.532 while for 2018 is 0.534 - which put the country in the low human development category - positioning it at 157 in 2017 and 158 out of 189 countries and territories. Between 2005 and 2017, Nigeria's HDI value increased from 0.465 to 0.532, an increase of 14.4 percent. Between 1990 and 2017, Nigeria's life expectancy at birth increased by 8.0 years, mean years of schooling increased by 1 year and expected years of schooling increased by 3.3 years. Nigeria's GNI per capita increased by about 87.4 percent between 1990 and 2017 (Human Development Indices and Indicators: 2018 Statistical Update).

The study derives its importance from the policy point of view since the identification of these factors is necessary to enable the governments to make proper changes in their policies in respect of distribution of resources that will help reduce the mortality rates with consequent increase in the length of life. The next section focuses on literature review, the third segment emphasizes on theoretical framework, the fourth part present the results and the last segment focuses on conclusion and findings.

## **Review of Literature**

In the study of Ogungbenle, Olawunmi and Obasuyi (2013), a vector autoregressive (VAR) model approach was employed in analyzing the data. The results of the study revealed that there is no bi-directional causality between life expectancy and public health spending in Nigeria. In the same vein, the study also revealed that there is no bi-directional causality between life expectancy and economic growth in Nigeria over the years. However, the

study confirmed that there is bi-directional causality between public health spending and economic growth in Nigeria.

In the logistic regression analysis, Adetoro and Amoo (2014) confirmed that, education of both parents and occupation of mothers' were found statistically significant to reduction in child mortality rate. The result also revealed that mothers' wealth index, age at first birth and usual of place of residence have substantial impact on child mortality in Nigeria. The cross tabulation analysis result indicated that child mortality rate was highest (49.14%) among the illiterate mothers and lowest (13.29%) among mothers with tertiary education.

Abraham and Ahmed (2011) using an error correction model examined economic growth and human development index in Nigeria. Their results show that policies aimed at accelerating growth would have a negative impact on human development in the short run but in the long run, equilibrium will be restored by Human Development Index adjusting to correct the equilibrium error. This implies that economic growth leads to human development and that macroeconomic policies aimed at achieving sustainable economic growth should be maintained. In the work of Salami *et al* (2017), Life expectancy showed a negative effect on the economic growth being represented as the Gross Domestic Product and this negative effect can be explained as the direct effect that increase in life expectancy has on the Nigerian population.

In the study of Olalekan, Mubashir and Ismail, (2008), using the data obtained from the Nigeria Demographic and Health Survey 2003, they found that children born multiple births are more likely to die during the first year of life compare to children born singletons, independent of child's sex, birth order, pregnancy care and delivery care, maternal education and nutritional status, household access to clean water and sanitation, and other factors. They also found that the mother's education played a protective role against infant death. This evidence suggests that improving maternal education may be key to improving child survival in Nigeria. A well-educated mother has a better chance of satisfying important factors that can improve infant survival the quality of infant feeding, general care, household sanitation, and adequate use of preventive and curative health services.

In the study of Ayotunde, Obiyan, Agunbiade and Fasina (2009), it was observed that maternal education and antenatal visitation were important and significant predictors of childhood survival. In general, the results from the 2003 Nigeria Demographic and Health Surveys show that the risk of under-5 deaths in 1999-2003 reference periods was significantly higher among women with no education followed by those with primary education and the trend continued reducing as education increases among women (50%, 31.3%, 11% and 10% respectively). Despite the variation found in under-5 deaths when age at first birth was considered, it was discovered in the results that maternal education at birth was the only significant predictor of childhood survival. A likely explanation for this may be found in the beliefs and health-seeking behaviour patterns of child bearing women.

Aigbe and Zannu (2012) discovered that Infant and child mortality rates in Nigeria varied spatially among the geo-political zones of the country and between rural and urban residence. The Northeast and the Northwest recorded the highest under-five mortality rates while the Southwest had the lowest rates among the geopolitical zones. Collectively, under-five mortality rates were relatively high for both 1999 and 2008 with even higher rates for 2008 except in the Southwest zone. The unevenness in the rates between rural and urban areas and among the geopolitical zones on one hand, the observed increase in the rates for 2008 over those of 1999 and the clustering of the rates call for more concerted efforts geared towards the reduction of childhood mortality rates.

### Theoretical Framework

This study deviates from other research works using endogenous growth theory. The endogenous growth theorist hold that economic growth is primarily the result of internal and not external forces. It holds that investment in human capital, innovation, and knowledge are significant contributors to economic growth. The theory also focuses on positive externalities and spillover effects of a knowledge-based economy which will lead to economic development. The basic ideas of endogenous growth theory are quite simple. The first is that technological progress is the driving force behind long-run growth. This proposition follows inescapably from the fact of diminishing returns. That is, if people continued to produce the same products, of the same quality, using the same means of production and the same procedures, with no growth in knowledge, then sustained growth in per-capita output would require sustained growth in the amount of capital used per worker. But beyond some point increases in capital per worker would eventually reduce its marginal product to zero. This force would eventually reduce a country's growth rate (that is, the growth rate of its per-capita GDP) to zero. The only force that can prevent this eventual stagnation is increasing productivity, coming from new products, processes and markets; that is, technological progress.

The AK model which is the simplest endogenous model, gives a constant savings rate of endogenous growth and assumes a constant, exogenous savings rate. It models technological progress with a simple parameter (usually A). It uses the assumption that the production function does not exhibit diminishing returns to scale leads to endogenous growth.  $Y = AK^a L^{1-a}$ . This equation shows a Cobb- Douglas function where Y represents the total production in an economy. A represents total factor productivity, K is capital, L is labour, and the parameter measures the output elasticity of capital. For the special case in which  $a = 1$ , the production function becomes linear in capital thereby giving constant returns to scale.

### Model Specification

The model used in this study is adapted from Idowu, (2014).

$$RGDP = f(GF, HE, LE, FR) \quad (1)$$

$$GDP_t = \alpha GF_t^\beta HE_t^\delta LE_t^\theta FR_t^\eta \quad (2)$$

The reduced equation after taking the natural logs of both sides is specified as follows:

$$\text{LGDP}_t = \alpha + \beta \text{GF}_t + \delta \text{HE}_t + \theta \text{LE}_t + \eta \text{FR}_t + \varepsilon_t \quad (3)$$

The variables (that formed the model) are expressed with respect to time, where;

GDP = real gross domestic product

GF = gross fixed capital formation

HE = health expenditure

LE = life expectancy at birth

FR = fertility rate

$\varepsilon$  = error term

$\alpha$  = the intercept

$\beta, \delta, \theta, \eta$  are coefficients of the independent variables.

The model was adapted basically because it seeks to capture the impact of health on economic growth in Nigeria and some variables used in the method are also likened to this study. Also, the variables used in this study are subject to data availability.

For the purpose of this study, a modified form of the adapted model is:

$$\text{GDP} = f(\text{IMR}, \text{NMR}, \text{U5MR}, \text{LE}, \text{HDI}) \quad (4)$$

The econometric criteria of this study is

$$\text{GDP} = \beta_0 + \beta_1[\text{IMR}] + \beta_2[\text{NMR}] + \beta_3[\text{U5MR}] + \beta_4[\text{LE}] + \beta_5[\text{HDI}] + \varepsilon \quad (5)$$

The variables that formed the model are expressed with respect to time, where;

GDP = Gross Domestic Product.

IMR = Infant Mortality rate.

NMR = Neo-natal Mortality Rate.

U5MR = Under-5 Mortality Rate.

LE = Life expectancy.

HDI = Human development Index.

$\varepsilon$  = error term.

The parameters of estimation in the equation are  $\beta_1, \beta_2, \beta_3, \beta_4$  and  $\beta_5$ .

The choice of year picked span from 1986 to 2018 and are sourced from World Development Indicators, World Bank, United Nations Development Programme. The empirical result is presented as follows:

### Result of the Findings

The result Table, the coefficient of the independent variable Infant Mortality Rate (IMR), Life Expectancy (LE) and Neo-natal Mortality Rate (NMR), are positively related to Gross Domestic Product (GDP) while Human Development Index (HDI) and Under-5 Mortality Rate (U5MR) are negatively related to Gross Domestic Product (GDP), as such it indicates that there is a positive relationship between Infant Mortality Rate (IMR), Life Expectancy (LE), Neo-natal Mortality Rate (NMR), and Gross Domestic Product (GDP); and a negative relationship between Human Development Index (HDI), Under-5 Mortality Rate (U5MR) and Gross Domestic Product (GDP).

**Table 1: Ordinary least squares Result**

Dependent Variable: GDP\_\_CURRENT\_US\$\_

Method: Least Squares

Date: 09/19/20 Time: 20:52

Sample: 1986 2018

Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
HDI	-262.7427	875.7360	-0.300025	0.7665
IMR	8.840959	7.067475	1.250936	0.2217
LE	47.17333	26.33697	1.791145	0.0845
NMR	6.256143	33.71819	0.185542	0.8542
U5MR	-7.249630	6.190306	-1.171126	0.2518
C	-1926.887	1981.372	-0.972502	0.3394
R-squared	0.935672	Mean dependent var		195.8745
Adjusted R-squared	0.923760	S.D. dependent var		175.5389
S.E. of regression	48.46924	Akaike info criterion		10.76270
Sum squared resid	63430.22	Schwarz criterion		11.03479
Log likelihood	-171.5846	Hannan-Quinn criter.		10.85425
F-statistic	78.54489	Durbin-Watson stat		1.018414
Prob(F-statistic)	0.000000			

Source: Authors computation using e-views 9

Furthermore, the magnitude of the coefficient of the independent variables differs; with Human Development Index having -262.7427 which connotes that an increase in Human Development Index will bring about -262.7427 decrease in the Gross Domestic Product. Life Expectancy having 47.17333 indicates that an increase in the Life Expectancy will cause about 47.17333 increase in the Gross Domestic Product. Infant Mortality Rate having 8.840959 implies and a unit increase in Infant Mortality Rate will cause about 8.840959 increase in the Gross Domestic Product. Also, a unit increase in Neo-natal Mortality Rate will cause about 6.256143 increase in the Gross Domestic Product. Likewise, and a unit increase in Under-5 Mortality Rate will cause about -7.249630 decrease in the Gross Domestic Product.

The adjusted  $R^2$  is given as 0.935672 measures a goodness of fit and it implies that the independent variables explain about 93.567% changes in the Gross Domestic Product and as such the independent variables are relevant to the Nigerian economy while the remaining 6.432 are the other variables that affect the Gross Domestic Product but not captured within the model. This 6.432% are called stochastic random error term.

The F-statistics is also used to test the significance of variables. From appendix 2, the probability value of the F-statistics must be less than the significant level for it to be statistically significant. The probability value of F-statistics is 0.0000; therefore, the independent variables are significant both at 1% and 5% respectively. The Durbin Watson

value of 1.018414 shows that there is absence of serial correlation within the model since the rule of thumb is based on the observed R-squared.

This table explains the test of serial correlation using Breusch-Greus-Godfrey correlation LM Test. The study has no autocorrelation since the rule of thumb is based on the observed R-squared.

### Test for serial Correlation

Table 2: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	17.67119	Prob. F(2,25)	0.0000
Obs*R-squared	19.32802	Prob. Chi-Square(2)	0.0001

### Conclusion

The wealth of a nation rests solely on the health sector. The regression result confirms that health variables plays a very significant role in determining the long run economic growth as all the health indicators have a significant impact on the long run economic growth. Analysis indicates that GDP and most of its determinants are significant, and that they are linked in the long run. The implication of this is that an economy that wants to achieve sustainable and rapid growth should invest in the health sector. Human capital formation should be properly taken care of. On-job training, seminars, workshops can be used to increase the human development index of Nigeria which later leads to sustainable economic growth. Also, proper public enlightenment and education of mothers on best health care practices is imperative for infant and child survival.

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## Appendix 1: Data Presentation

Gross Domestic Product, Infant Mortality rate, Maternal Mortality Rate, Life expectancy,

Years	GDP (current US\$)	IMR	NMR	LE	HDI	U5MR
1986	54,805,852,581.2	124.5	49.9	46.1	0.258	211.00
1987	52,676,041,930.6	125	49.9	46.0	0.269	211.90
1988	49,648,470,439.8	125.4	50	46.0	0.280	212.60
1989	44,003,061,108.3	125.7	50.1	45.9	0.291	212.90
1990	54,035,795,388.1	125.6	50.3	45.9	0.302	212.90
1991	49,118,433,047.6	125.4	50.6	45.9	0.313	212.50
1992	47,794,925,815.6	125	50.8	45.9	0.324	211.90
1993	27,752,204,320.2	124.5	51	45.8	0.335	211.20
1994	33,833,042,988.4	123.9	51	45.8	0.346	210.10
1995	44,062,465,800.0	122.9	51	45.9	0.351	208.30
1996	51,075,815,092.3	121.4	50.8	45.9	0.368	205.70
1997	54,457,835,193.9	119.5	50.4	45.9	0.379	202.10
1998	54,604,050,167.9	117.1	49.7	46.0	0.390	197.70
1999	59,372,613,485.9	114.5	49	46.1	0.401	192.80
2000	69,448,756,932.6	111.6	48.1	46.3	0.412	187.40
2001	74,030,364,472.4	108.6	47	46.5	0.423	181.70
2002	95,385,819,320.7	105.6	45.9	46.8	0.434	175.90
2003	104,911,947,833.9	102.5	44.8	47.2	0.443	169.90
2004	136,385,979,322.7	99.4	43.7	47.7	0.462	164.00
2005	176,134,087,150.5	96.2	42.6	48.2	0.465	157.90
2006	236,103,982,431.6	93	41.5	48.8	0.475	151.90
2007	275,625,684,968.9	89.9	40.6	49.4	0.479	146.00
2008	337,035,512,676.6	86.8	39.7	49.9	0.485	140.30
2009	291,880,204,327.6	83.9	38.8	50.4	0.490	134.80
2010	363,359,886,203.3	81	38	50.8	0.484	129.60
2011	410,334,579,160.6	78.3	37.1	51.3	0.494	124.11
2012	459,376,049,763.8	75.7	36.4	51.7	0.512	120.00
2013	514,966,287,334.4	73.3	35.6	52.1	0.519	115.60
2014	568,498,937,615.6	71	34.9	52.5	0.524	111.60
2015	494,583,180,777.2	68.7	34.2	53	0.527	108.00
2016	404,649,527,537.7	66.6	33.5	53.4	0.53	104.30
2017	375,745,486,520.7	64.6	32.9	53.9	0.532	100.30
2018	398,000,000,000.1	62.1	36.0	54.1	0.534	119.9

### Human Development Index Indicators (1986-2018).

Source: World Development Indicators, World bank, United Nations Development Programme. Estimates developed by the United Nations inter agency group for Child Mortality estimation (UNICEF, WHO, World Bank) at: [www.childmortality.org](http://www.childmortality.org)

**Appendix 2: Ordinary Least square**

Dependent Variable: GDP\_CURRENT\_US\$\_

Method: Least Squares

Date: 09/19/20 Time: 20:52

Sample: 1986 2018

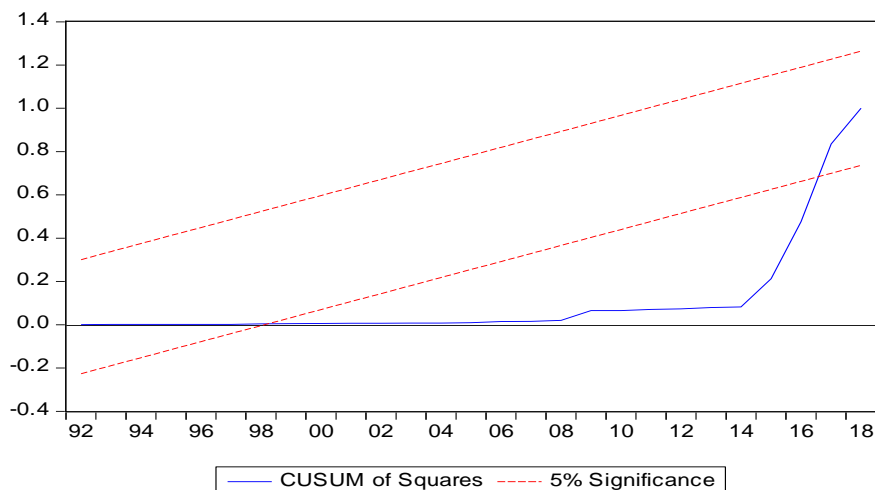
Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
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NMR	6.256143	33.71819	0.185542	0.8542
U5MR	-7.249630	6.190306	-1.171126	0.2518
C	-1926.887	1981.372	-0.972502	0.3394

R-squared	0.935672	Mean dependent var	195.8745
Adjusted R-squared	0.923760	S.D. dependent var	175.5389
S.E. of regression	48.46924	Akaike info criterion	10.76270
Sum squared resid	63430.22	Schwarz criterion	11.03479
Log likelihood	-171.5846	Hannan-Quinn criter.	10.85425
F-statistic	78.54489	Durbin-Watson stat	1.018414
Prob(F-statistic)	0.000000		

Source: Authors compilation using E-views 7



## **Emergency Contraceptive Practices Among Sexually Active Female Students in Selected Tertiary Institutions in Kaduna State, Nigeria**

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### **Abstract**

The study investigates issues on emergency contraceptive practices among sexually active female students in selected tertiary institutions in Kaduna State. Data were collected quantitatively from self-identified sexually active female students selected across three tertiary institutions in Kaduna State. The selection of respondents resonates purposive sampling method as respondents were selected based on certain known characteristics such as being sexually active and ensuring that various faculties are represented. Findings from the study revealed a relatively high level of awareness about the existence of emergency contraceptives (EC). However, the level of use is low compared to the high number of respondents who reported engaging in unprotected sex. Both modern and traditional forms of ECs are being used by students. However, others would not use EC due to the perceived fear of side effects, religious/traditional convictions and lack of availability. This exposes sexually active young people to the risk of unwanted pregnancies and the resultant effects of unsafe abortions. The study, therefore, recommends implementation of policies that will help promote the use of ECs by people who engage in risky sexual activities.

**Keywords:** Contraceptives, Emergency Contraceptive, Sexual activity, STIs, Tertiary institutions and Unwanted pregnancy.

### **Introduction**

The increase in incidences of unwanted pregnancies resulting from unprotected sexual intercourse among young people have raised great concern across the globe. There has been a geometric increase in the incidences of unwanted pregnancies and unsafe abortions among young adults the world over. Each year, about four million adolescents resort to abortions and at least two million more young women are left with chronic illness or disability which could result to life-long suffering, shame or abandonment (Ramos, 2011). This figure can be reduced with an increase in the use of contraceptives, including Emergency Contraceptives (EC) (World Health Organisation (WHO), 2018). This scenario is even worse in countries like Nigeria where abortion is illegal and punishable by law except for therapeutic reasons. The restrictive law against abortion in Nigeria has made young people who are pregnant to seek for abortion in clandestine conditions which could result in adverse health problems such as damage to the reproductive system of the woman, physical disability or at worse death.

Abortions account for 20 - 40 percent of maternal deaths and tens of thousands suffer from chronic and sometimes irreversible health consequences (Abiodun & Balogun, 2009). The National Demographic and Health Survey (NDHS)(2019) reported about 19 percent of women aged 15-19 years to be pregnant in the preceding year of 2018 in Nigeria. These concerns have led to varying levels of technological developments regarding contraceptives that are expected to promote the practice of safe sex. Various forms of contraceptives have been identified to protect the individual from the contraction of Sexually Transmitted Infections (STIs) and unwanted pregnancies.

Young people are found to exhibit risky sexual behaviours by engaging in unprotected sexual activities without much concern for the outcome of such decisions such as unwanted pregnancy (Ebuehi, Ekanem & Ebuehi, 2006; Zaggi, 2014; Kolawole, Abubakar & Zaggi, 2015). The consequences of unwanted pregnancy are often detrimental to the students' educational progress and future career. This typified by the unfriendly environment the Nigerian society provides for young girls who get pregnant outside wed lock. Such girls are often exposed to shame and ridicule and sometimes even forced to withdraw from the school. Considering these challenges, most students with unwanted pregnancy could resort to abortions, usually in unsafe ways, and consequently resulting in adverse health effects.

Students in tertiary institutions are considered a high-risk category in terms of reproductive health. Tertiary institutions give students a high degree of freedom and provide social platforms such as hostel parties, social meetings, as well as less restriction from parents and guardians thereby resulting in students meeting and interacting with others of the opposite sex. For example, a study conducted by Zaggi (2014) among students in a tertiary institution in Kaduna state, reveals that students meet and initiate sexual relationships in school easily than when at home with their parents. The study further reveals that such relationships often expose students to the dangers of engaging in risky sexual activities. The lack of use, incorrect use or failure of contraceptives during sex exposes young people to the risk of unwanted pregnancy, this risk could be reduced if not eradicated by the correct use of ECs. The study seeks to achieve the following objectives:

- i. To explore the level of awareness of the existence of emergency contraceptive methods among students in tertiary institutions in Kaduna State.
- ii. To examine the level of use and types of emergency contraceptives used by students in tertiary institutions in Kaduna State.
- iii. To explore the reasons for the non-use of emergency contraceptives by students in tertiary institutions in Kaduna State.

### **Research Questions**

To achieve these objectives, the study is designed towards answering the following research questions:

- i. What is the level of awareness of the existence of emergency contraceptive methods among students in tertiary institutions in Kaduna State?
- ii. What is the level of use and the types of emergency contraceptives used by students in tertiary institutions in Kaduna State?
- iii. What are the reasons for the non-use of emergency contraceptives among students in tertiary institutions in Kaduna state?

## **Conceptual Clarification**

### **Emergency Contraceptive**

The WHO (2005) defines emergency contraceptive as a back-up method for contraceptive emergencies used by a woman within the first few days after engaging in unprotected sex to prevent an unwanted pregnancy. ECs help to protect against pregnancy but do not protect against STIs. According to Haggai (2003), ECs are either drugs or devices used to prevent pregnancy within the first few days of unprotected sexual intercourse. Emergency contraception is also referred to as "morning-after pill", "post-coital contraception" or "second chance contraception" (Tilahun, Assefa & Belachew, 2010). Emergency contraception is primarily a female method of contraception and its primary use is to reduce the need for abortions and the negative maternal health consequences associated therewith. Levonorgestrel-only pills (postinor-2) and combined oral contraceptives are reported to be the most common methods used globally (Lemma, 2009; Ezebialu & Eke, 2013). Emergency contraceptives are similar to birth control pills; however, they contain higher hormonal doses. In the context of this study, emergency contraceptive is used to refer to any method (modern or traditional) used to prevent an unwanted pregnancy after engaging in unprotected sexual intercourse. Unprotected sexual intercourse could be a result of the lack of contraceptive use or the failure of contraceptives during sex. Failure of contraceptives could be due to condom break during sex or failure to take the day-to-day birth control pills.

### **Awareness and Use of Emergency Contraceptive Among Students in Tertiary Institutions in Nigeria**

Despite the widespread campaigns on the need to use contraceptives before, during or after sexual intercourse to protect against STIs and unwanted pregnancy, there has been reported low use among young sexually active people. A study conducted by Zaggi (2014), among students in a tertiary institution in Kaduna State, reveals only 38 percent of sexually active students involved in the study reported using any form of contraceptive before, during or after sex. The need to encourage the use of contraceptives, in this case, emergency contraceptives, has made Non-Governmental Organisations (NGOs) such as the Nigerian Consortium on Emergency Contraception (NCEC) to launch campaigns in collaboration with other health stakeholders in 1998 by developing strategies to increase the use of and accessibility to emergency contraception across Nigeria. Through this effort, the Society

for Family Health (SFH) in 2001 became a major distributor of emergency contraceptive, especially postinor-2 in Nigeria.

Postinor-2 has been identified by Ezebialu and Eke (2013) as the common brand of emergency contraceptive pills used in Nigeria. The product contains a total of 1.50 milligrams (mg) for levonorgestrel. Some labelling requirements advice that dosage should be taken in two pills (each of 0.75 mg), 12 hours apart. However, evidence has shown that taking both pills at the same time is equally effective. If a progestin-only product is not available, a less desirable alternative known as the Yuzpe regimen employs commonly available combined oral contraception pills that contain both estrogen (ethinyl estradiol) and progestin (levonorgestrel). This regimen is generally taken in two doses, 12 hours apart, with each dose containing 100 micrograms (mcg) of ethinyl estradiol and 500 mcg of levonorgestrel (Wambugu, 2013).

Studies such as Alemayehu (2006), Zaggi (2014), Zaggi and Dambo (2019), have associated the lack of contraceptive use among young people to the forms of sexual relationships that young people engage in. Alemayehu (2006) in his study among high school students in Ethiopia as well as Zaggi (2014) in a survey among students in a tertiary institution in Kaduna State found that girls who engage with multiple sexual partners are most likely to engage in unprotected sexual intercourse, especially when one or all their partners are older. Zaggi and Dambo (2019) in a qualitative study among students of Federal Polytechnic Kaduna, Kaduna State found that girls who engage in transactional sex sometimes lack agency in negotiating the use of contraception during sex. Given these limitations, girls are often exposed to risk associated with unprotected sex such as unwanted pregnancy and consequently unsafe abortions that could result in adverse health effects. It is expected that cases as this could be avoided using emergency contraceptives which could be taken within 72 hours after unprotected sex (Kolawole, Abubakar & Zaggi, 2015).

A study on the awareness and practice of emergency contraception among university students in Port Harcourt, South-South Nigeria by Ojule, Orij and Georgewill (2008) reveal a low-level awareness of the modern emergency contraceptives with only 20.4 percent of the respondents reported being aware of its existence. However, the study revealed the use of traditional forms of emergency contraceptives as a concentrated salt drink, stout beer, or having an enema after unprotected sex. Attahir, Sufiyan, Abubakar and Haruna (2010), in their study on emergency contraceptive among female adolescents in Rigasa community in Kaduna State, reported the use of robin blue (dye) by inserting it in excess in the vagina before or immediately after sex. Respondents in this study also reveal that lime mixed with coke or potash could be used as emergency contraception. Also, medications not intended to be used as emergency contraception such as metronidazole, was reported to be used to prevent pregnancy after unprotected sex. Other traditional forms of emergency contraceptives used by young people as reported in similar studies include, spiritual waist and armbands, urinating immediately after unprotected sex

(Zaggi, 2014), club soda, gaseous drinks (Idonije, Oluba & Otamere, 2011), herbal concoctions, hot drink (Akani, Enyidah & Babatunde, 2008). Although these forms of emergency contraceptives are widely used by young people, there is no proven efficacy.

### **Theoretical Framework**

This study is guided by the rational choice theory. This theory has its roots in the classic school of criminology and was developed by an Italian social thinker, Cesare Beccaria (Devine, 1982). However, the theory has been applied to other spheres of life to explain the choices that people make in their everyday social life. Central to the argument of the rational choice theory is the assumption that individuals are motivated by their wants and goals and are driven by personal desires. Being that individuals cannot attain all they desire; they are forced to make choices regarding their goals and the means of achieving them. In doing so, individuals must anticipate the outcomes of alternative courses of action and calculate which action is best. In the end, rational individuals choose the course of action that is likely to give them the greatest satisfaction.

In this case, it is argued that students in tertiary institutions experience a high level of personal freedom and social interactions, these offer them the opportunities for permissive lifestyles including a high level of sexual networking. From this perspective and the idea of the rational choice theory, human behaviour is a carefully calculated action meant to achieve defined goals, irrespective of perceived consequences. Within this context, the use or non-use, as well as the type of emergency contraceptive used by students after unprotected sex, could be assumed to be a calculated action meant to achieve defined goals irrespective of the consequences. In this case, choices could be influenced by the perceived benefits or side effects of emergency contraceptives as well as the perceived efficacy of emergency contraceptive methods. Considering the foregoing discussion, the study seeks to explore the level of emergency contraceptive use among female students in selected tertiary institutions in Kaduna State as well as the types of emergency contraceptives being used by students in these institutions.

### **Methodology**

Data for the study were collected from three randomly selected tertiary institutions in Kaduna State; Kaduna State University (KASU), College of Nursing and Midwifery Kafanchan (CON) and Kaduna State College of Education Gidan Waya (COE). Quantitative data were collected from female students who self-identified to be sexually active and were registered in these institutions at the time of the study. A respondent is considered sexually active in this study if she has engaged in sexual intercourse within the preceding six months to the time of data collection. An initial survey was conducted in these institutions where female students were randomly issued with an information/consent form, with details of the study and at the end, they were asked to state if they were sexually active and were willing to participate in the study. Those interested in the study were asked to indicate their phone numbers for further contact during the questionnaire distribution



phase. From the information retrieved, 279 sexually active respondents were selected for the study across the three institutions; 67 from KASU, 167 from COE and 45 from CON. The selection of this sample across the three institutions was informed by the numbers of students that met the selection criteria as well as indicated interest to participate in the study. In the selection process, purposive sampling was used to ensure that students from different faculties in the school were represented in the sample.

Data were collected using self-administered semi-structured questionnaire. The questionnaire was constructed in English language which is the official language in all the selected institutions used by both staff and students. The questionnaire was structured in three sections: the first section contained questions on the socio-demographic variables of respondents, the second section addressed the awareness of students on the existence of emergency contraceptives and the third section contained questions on the use or non-use as well as the types of ECs used by students. Selected respondents were contacted and given questionnaires to complete and return immediately or later as would be convenient for the respondents. A total of 270 completed copies of the questionnaire were retrieved. It is on these retrieved copies of questionnaire that the analysis for the study was based. Data collected was first checked for consistency and finally edited for missing values. The data were coded and transferred to the Statistical Package for Social Sciences (SPSS) software (version 20) for analysis. Data were analysed by using univariate data analysis and presented in frequency tables.

### **Results of the Findings**

To find out the level of emergency contraceptive awareness, respondents were asked to mention if they have heard of any method of emergency contraceptives. It is important to note that awareness in this context does not reflect knowledge on how emergency contraceptive work. Awareness is used to indicate if respondents have ever heard of at least one method of emergency contraceptives.

**Table 1: Awareness of Emergency Contraceptives**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	202	74.8
No	68	25.2
<b>Total</b>	<b>270</b>	<b>100.0</b>

Responses indicate a high level of awareness among respondents in the selected institutions as 74.8 percent indicated being aware of the existence of at least one method of emergency contraceptive (Table 1). Respondents were asked to indicate if they have had unprotected sex and the frequency of engaging in unprotected sex within the last one year before the time of the study as shown in Table 2.

**Table 2: Engagement in and frequency of unprotected sex within the last one year**

<b>Ever engaged in unprotected sex</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	253	93.7
No	17	6.3
<b>Total</b>	<b>270</b>	<b>100.0</b>
<b>Number of Unprotected Sex</b>	<b>Frequency</b>	<b>Percentage</b>
One time	64	25.3
Two times	80	31.6
Three times	36	14.2
More than three times	73	28.9
<b>Total</b>	<b>253</b>	<b>100.0</b>

Findings of the study reveal a high level of risky sexual practice among respondents as majority (93.7 percent) of respondents reported having unprotected sex within the last one year. This is worrisome due to the reported spread of STIs among young people. Although they could use emergency contraception to protect themselves against pregnancy, emergency contraceptives do not protect against STIs and if used wrongly, without the right timing, it could also fail to protect against unwanted pregnancy. Understandably, that young people involved in unprotected sexual intercourse could be doing so with their partners whom they trust, it is expected that using other forms of contraceptives such as condom could also improve the level of protection against both unwanted pregnancy and STIs. Interestingly, 6.3 percent of the respondents reported not engaging in any form of unprotected sexual intercourse within the last one year.

A comparison of the number of respondents who indicated in Table 1 that they were not aware of any form of emergency contraceptive (74.8 percent) and the number of respondents in Table 2 who reported engaging in unprotected sex (93.7 percent), shows the possibility of respondents who engage in unprotected sexual intercourse without using any form of emergency contraceptive to protect against pregnancy. This could be due to a lack of awareness of the existences of ECs. Also, as indicated in Table 2, majority (74.7 percent) of the respondents who had engaged in unprotected sex, has done so at least twice in the preceding year (31.6 percent had unprotected sex twice; 14.2 percent, three times and 28.9 percent, more than three times).

To determine the level of emergency contraceptive use among respondents, they were asked to indicate if they had used emergency contraceptives before and the number of times, they have used within the last year.

**Table 3: Used of ECs and Frequency of Use within the last one year**

<b>Ever used ECs</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	146	54.1
No	124	45.9
<b>Total</b>	<b>270</b>	<b>100</b>
<b>Frequency of using ECs</b>	<b>Frequency</b>	<b>Percentage</b>
One time	36	24.7
Two times	22	15.1
Three times	12	8.2
Four times	11	7.5
Five times	48	32.9
Six times	4	2.7
Seven times	7	4.8
More than seven times	6	4.1
<b>Total</b>	<b>146</b>	<b>100.0</b>

All respondents (including those that have never engaged in unprotected sex) were asked to indicate if they had ever used emergency contraceptives before. It is expected that respondents could use other forms of contraceptives during sex and still use ECs after sex as a backup plan to protect against unwanted pregnancy. Majority of the respondents (54.1 percent) indicated they have ever used emergency contraceptives after sexual intercourse. Of this category, the majority, 75.3 percent have used ECs at least two times, while 24.7 percent reported using ECs only once within the preceding year (Table 3).

Respondents were given a list of emergency contraceptive methods (both modern and traditional) and asked to indicate as many as they have used, and also indicate in an open space provided, other forms of emergency contraceptives they have used before (especially traditional forms of ECs). Respondents were asked to select as many methods because it is expected that some respondents would have used more than one of the methods. Therefore, the total frequency could appear to be more than the number of respondents who reported ever using ECs (146 respondents) as reflected in Table 3. In this regard, percentages in Table 4 are derived by dividing the frequency of each method by 146 (the number of respondents that have used ECs before, see Table 3) then multiplied by 100.

**Table 4: Types of ECs used by respondents after unprotected sex**

<b>Use of Modern EC methods</b>	<b>Frequency</b>	<b>Percentage</b>
Menstrogen	65	44.5
Postinor 2	124	84.9
Copper IUD	11	7.5
Pills and IUD	15	10.3
Others	14	9.6
<b>Use of Traditional EC methods</b>	<b>Frequency</b>	<b>Percentage</b>
Drinking and washing the vagina with salty water	50	34.2
Lime	60	41.9
Potash	10	6.8
Gin	11	7.5
Herbs	35	24.0
Squatting after sex	6	4.1
Taking gaseous drinks	21	14.4

As indicated in Table 4, respondents reported using both modern and traditional forms of emergency contraceptives. Postinor-2 and menstrogen featured as the commonly used modern forms of emergency contraceptives with 84.9 percent and 44.5 percent respondents affirming in this regard respectively. Other forms of modern emergency contraceptives used by respondents were copper IUD (7.5 percent) as well as pills and IUD (10.3 percent). Respondents reported using traditional forms of emergency contraceptives to protect against unwanted pregnancy such as drinking concentrated salty water after unprotected sex and also washing the vagina with salty water (34.2 percent), drinking lime after unprotected sex (41.9 percent), Drinking potash dissolved in water (6.8 percent), drinking gaseous drinks and gin (14.4 percent and 7.5 percent respectively). Also, 24.0 percent of respondents indicated they take some herbal concoctions after having unprotected sex and 4.1 percent indicated that squatting after unprotected sex help to flush out the sperm from the vagina.

Although respondents believe that these traditional forms of emergency contraceptives help to protect against unwanted pregnancy, its potency is yet to be proven scientifically. As such, this could expose its users to adverse health consequences and at its extreme death. This is because of the lack of proper prescription as to the right quantity and the right time to administer it after engaging in unprotected sex.

To ascertain the reasons for the non-use of emergency contraceptives despite their awareness of its existence and the possible risk of unwanted pregnancy, respondents were asked to indicate why they may consider not using emergency contraceptives after unprotected sex.

**Table 5: Reasons for non-use of ECs after unprotected sex**

Reasons associated with the non-use of ECs	Frequency	Percentage
Leads to an untimely death	58	21.5
Leads to barrenness/infertility	57	21.1
It is a sin	46	17.0
Lack of knowledge	48	17.8
Lack of accessibility	16	5.9
Lack of money	17	6.3
Others	28	10.4
<b>Total</b>	<b>270</b>	<b>100.0</b>

As contained in Table 5, respondents indicated they will not use emergency contraceptives due to its perceived side effects such as death (21.5 percent) and barrenness/infertility (11.1 percent). Others perceived that using emergency contraceptives is a sin (17.0 percent). Other respondents also indicated other factors that could make them not to use ECs to include the lack of knowledge about its existence (17.8 percent), inaccessibility (5.9 percent) and the lack of money to purchase ECs (6.3 percent).

Considering factors associated with the non-use of emergency contraceptives, as reflected in Table 5, there is a possibility that students' ability to make a rational decision towards the use of emergency contraceptives may be hampered by the interplay of these factors among sexually active students. Factors such as the fear of side effects could deter students from using ECs. Students would rather make use of other forms of contraceptives during sex or resort to taking the risk of getting pregnant when they engage in unprotected sex.

### **Discussion of Findings**

Results from the study have revealed a relatively high level of students' engagement in risky sexual practices. Majority of students engage in unprotected sexual intercourse severally, thereby exposing themselves to the risk of unwanted pregnancy and the contraction of STIs. Although emergency contraceptives help to prevent pregnancy, it must be stated that the level of protection provided by EC is limited because it does not protect against the contraction of STIs. Findings from this study reveal a relatively high level of awareness about the existence of emergency contraceptives, there is however a substantial number of sexually active respondents that are not aware of its existence. This lack of awareness would limit the capacity of such students to protect themselves against pregnancy when they engage in unprotected sex or when they experience contraceptive failure during sex. Studies by Fasanu, Adekanle, Adeniji and Akindele (2014), Kolawole, Abubakar and Zaggi (2015), Awoleke, Adanikin, Awoleke and Odunaye (2015), have revealed an increase in awareness and knowledge of emergency contraceptives to have a close association with an increase in utilization.

Findings from the study also reveal the use of modern ECs by respondents, postinor-2 featured as the commonly used modern EC. This could be as a result of its availability in pharmacy stores as well as its easy mode of administration. In line with this, studies by

Zaggi (2014), Ross and Hardee (2012) have related the knowledge and utilisation of contraceptive methods to its level of availability. They argued that the most used methods of contraceptives are those that are readily available to consumers at retail outlets and cheaper prices. In this case, postinor-2 is more available than other forms of ECs as the IUDs. Traditional forms of contraceptives form an important part of contraceptives in Nigeria. The study also reveals that, traditional methods of emergency contraceptives are used by students after unprotected sex. Methods like squatting, ingestion of concentrated salt water, gaseous drinks, lime, potash, gin and herbal concoctions were mentioned by respondents as emergency contraceptives being used.

Babalola (2009) defines traditional contraceptives as plants/items used for birth control or in preventing pregnancy and for the expulsion of the foetus from the womb. It is expected that upon ingestion, these concoctions sterilize the sperm and inhibit implantation by causing disturbances in the oestrogen-progesterone balance of the female body. Although the efficacy of these methods is often only explicated by traditional medicine practitioners and their clients, it is, however, important to emphasize the relevance of traditional contraceptive methods to these clients. Admittedly, most users of traditional contraceptives in Nigeria may lack access to modern contraceptives; they, however, believe that traditional contraceptive methods are products of their forefather's wisdom, which recognises their socio-cultural and religious values and has little or no side effects when compared to modern contraceptives (Adesina, 2013).

Going by the arguments of the rational choice theory, it is believed that individuals will use emergency contraceptives each time they engage in unprotected sex because of its benefit in protecting against unwanted pregnancy. However, there is a need to recognise the study of Reyna and Farley (2006) which reported the need for the examination of social factors that tend to influence the individual's course of action concerning health behaviours. In this study, findings reveal the influences of social factors on students' decision not to use an emergency contraceptive, these social factors include the fear of contraceptive side effects, religious beliefs that contraception is a sin, lack of adequate knowledge as well as inaccessibility to emergency contraceptive methods.

## **Conclusion**

This study has examined emergency contraceptive practices among sexually active female students in selected tertiary institutions in Kaduna State, Nigeria. Findings of the study have shown that the high level of sexual activity among students have detrimental effect on the educational progress of students which include unwanted pregnancies. Most students would seek means of terminating pregnancies and would resort to unsafe abortions that could have adverse effects on their health. Hence, the need to implement policies that will help promote the use of ECs by people who engage in risky sexual activities.

## Recommendation

Based on the findings of the study, the following recommendations are made;

- i. There is the need for government health institutions, NGOs and other stakeholders to intensify campaigns that will enlighten and educate young people about emergency contraceptives, available methods and the ways it functions; including the right ways of administration. Such campaigns should ensure wide coverage especially to rural areas, this way a wider population of young people would be enlightened in this regard.
- ii. It is pertinent to improve the accessibility of emergency contraceptives, in terms of availability of diverse methods at close locations and at low prices. Health workers should be encouraged to provide such services to clients irrespective of age and marital status.
- iii. Cultural and religious perceptions concerning contraceptives and the bearing they have on young people's sexual health must also be addressed. This will entail recognising young people as capable of being sexually active, hence, the need to protect them from the adverse effects of unwanted pregnancies.

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## **Maternal Mortality, Child Mortality, Life Expectancy and Economic Growth: The Nigerian Experience**

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### **Abstract**

The study investigated the impact of maternal mortality, child mortality and life expectancy on the Nigerian economic growth covering a period of 30 years spanning 1990 to 2019. In addition, the study adopted a theoretical framework of Solow Growth Theory and its production function was later modified for the empirical analysis of this study. The Classical Least Square was used to estimate the relationship of the empirical model while the Granger Causality Test was used to test the direction of causality among the model parameters. Results of the analyses revealed that maternal health, infant mortality and population growth exerts positive impact on economic growth with infant mortality found to be statistically insignificant while under-five mortality and life expectancy exerts a negative impact on economic growth in Nigeria with life expectancy exhibiting a statistical significance. The Granger Causality test results revealed unidirectional causality from gross domestic product to life expectancy and maternal mortality, also unidirectional causality from population growth to gross domestic product and from under-five mortality to gross domestic product. The test also revealed there is no causality between infant mortality and gross domestic product over the study period in Nigeria. Therefore, the study recommended that government should formulate plans and strategies at reducing child mortality at all its level (federal, state and local) to ensure economic growth among others.

**Keywords:** Child Mortality, Classical Least Square, Economic Growth, Granger Causality, Life Expectancy, Maternal Health and Solow Growth Theory.

### **Introduction**

Every economy desires growth and development, whereas in recent time the nature of connection between major health indicators (maternal health, under 5 mortality, infant mortality and life expectancy), health expenditure and economic growth have generated debate among economic researchers, policy makers and health economists. This was due to the fact that government expenditure has increased over time and such should be reflected on the country's health indicators (Byaro & Musonda, 2016; Farahani, Subramanian & Canning, 2010; Ude & Ekesiobi, 2014, Ogungbenle, Olawunmi &

Obasuyi, 2013; Klobodu, Dawson, Reed & Carpio, 2018). Economic growth literature clearly explained the importance of health in propelling productivity in any economy.

Grossman (1972) argued that good health is required for the production of optimal output. The popular notion “*health is wealth*” implies it is only a healthy labour force that can contribute efficiently and effectively to production and growth of a country’s output. As postulated by Solow (1956), the output of a nation at any point in time depends on capital, labour and knowledge or effectiveness of labour. Thus, this make the health of the citizens of a country that constitute its labour force essential to the government that aspires growth for labour manage all other inputs and as such adequate provision, policies, programmes and frameworks should be made one of the primary objectives of every government as the result translates to economic growth which is one of their macroeconomic objectives. It is suggested that, healthier workers will be able to work longer, efficiently and effectively than their relatively less healthy counterparts (Meroyi, 2018). Health of the labour cannot be over-emphasized yet without good health status; the labour force cannot optimize the utility of available scarce resources.

Maternal and child mortality rate has generally reduced in Africa and Nigeria in particular as evidenced by their reduction between 1990 till date (Millennium Development Goal, 2013; UNICEF, 2016). Despite the efforts put in place and this significant achievement, maternal and child mortality rates per 100,000 lives are still higher than the estimate of MDG-5. As presented by Bello and Joseph (2014), in Nigeria, one woman dies in every ten minutes on the account of either pregnancy or child birth, amounting 53,000 per year. This figure is indeed high and saddening, it implies about 800 women die in every 100,000 live births while Nigeria’s new born death rate (neonatal mortality) is considered one of the highest in the world with 528 per day (UNICEF/ WHO/ World Bank/UN, 2015).

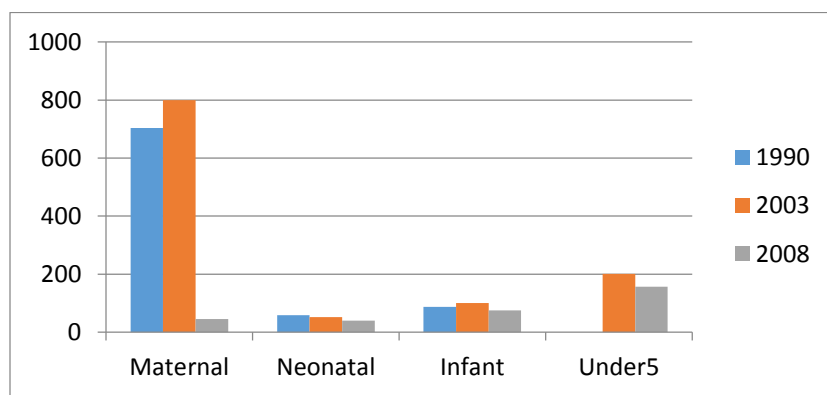


Fig. 1: Trends in Maternal and Child Mortality Rates in Nigeria (Per 100,000) 1990 - 2008

Source: MDG Acceleration Framework (2013)

Furthermore, inadequate/lack of health care facilities and equipment in hospitals/health centres, inadequate professional health personnel majorly as a result of brain drain, access to antenatal and postnatal health care facilities are major challenges confronting the provision of comprehensive and all-round health care for women and children (UNFPA, 2013). Also, there are problems with lack of education on antenatal and postnatal health care importance among pregnant women which cause complications on maternal and child health. Whereas, the Nigerian economy with population estimate of about 201 million according to United Nations (2020) had grown over the years in all its sectors since independence.

Against this background that major health indicators are positively related to economic growth; empirical exploration of literature reveals studies concentrated on health spending and health outcomes in Nigeria such as David, (2018), Nwankwo (2018), Ogunjimi and Adebayo (2019). Similar to this study are that of Klobodu *et al* (2018) who examined maternal and child health impact on economic growth but focused on some Sub-Saharan African countries. Also, the study of Ogungbule, Olawunmi and Obasuyi (2013) only considered life expectancy as health indicator variable in their research while the study of Ogunjimi and Adebayo (2019) only examine the causality between health expenditure, health outcomes and economic growth in Nigeria.

Conclusively, this study is of great distinction as its main objective is to examine the impact of maternal health, child mortality and life expectancy on economic growth in Nigeria for the period 1990 – 2019. It also attempts to check for the direction of causal relationship among the variables. The guiding hypotheses are: (i) maternal health, child mortality and life expectancy has no significant impact on economic growth in Nigeria (ii) maternal health, child mortality and life expectancy does not granger cause economic growth in Nigeria. The remaining sections of this paper are structured in the following manner: section 2 discusses the conceptual clarifications, trend analysis of variables and literature review. Section 3 contains the theoretical framework, model specification, data and estimation techniques. Section 4 comprises the empirical results and analysis; and section 5 concludes the study.

## **Conceptual Clarifications**

### **Maternal Mortality**

This simply means any loss or death that occurs to a woman's life after childbirth usually within 42days or as a result of pregnancy complications. As noted by Ibrahim (2016), such complications are issues emanating or linked to improper management of pregnancy and not from accident or incidental factors. Literature revealed that there are several medical and non-medical factors affecting maternal health in the broad context. Moughalu (2010) in his work noted that in Nigeria, maternal mortality is been influenced by several non-medical conditions. Such include social, economic and cultural factors among others; which impact directly on maternal mortality status. The most engrossing fact which calls

for attention on maternal mortality in Nigeria rural areas are the causes, these causes are factors that are non-medical which range from poverty to educational attainment, income level/earning, taboos or prohibitions as well as certain cultural practices and beliefs.

However, Nigeria maternal mortality reduction had recorded commendable progress especially between 1990 and 2015. Maternal mortality declined in 1990 from 1,100 per live births to 350 in 2012 whereas despite this appreciable trend of reduction, it is still considered then not sufficient for reducing maternal mortality ratio (MMR) to 250 maternal deaths per 100,000 live births as objectified by United Nations Millennium Development Goals for 2015 (MDG, 2013). As reported by NDHS (2019) in their 2018 survey, Nigeria still failed to achieve the United Nation objective in reducing maternal mortality rate.

### **Child Mortality**

Child mortality is a broad component which can be simplified into infant mortality and under-5 mortality. Infant mortality is the death of young children majorly those below age 2 and it is measured by infant mortality rate index (IMR), which is often computed using the number of deaths of children within the specified age per 100,000 live births at a particular period of time (Carpenter, n.d.). Under-5 mortality rate (U5MR) on the other hand can simply be defined as the probability a child given birth to in a specified year will die before the age of five. It can also be referred to as the sum total of deaths of infants (i.e. below age two) and that of children under the age of five, this is calculated per 100,000 live births (United Nations Children's Fund, 2012; UN Inter-agency Group for Child Mortality Estimation, 2013).

Past reports and studies on child mortality showed that despite the reduction in annual rate of U5M, Nigeria finds it challenging to attain the benchmark decline rate of 11% per annum as required by MDG goal 4 of the United Nations in West and Central Africa in 2015 (Rajaratnan et al, 2010; National Population Commission [Nigeria], 2004, 2009c; Lynken *et al*, 2009). Further investigations revealed that several efforts had been put in place in SSA countries (Nigeria inclusive) but child mortality rate still remains unacceptably high in the region. Smith (2010) reported that despite the region account for just one-fifth of the world's children population, about half of the world childhood deaths are from SSA countries.

### **Life Expectancy**

According to World Health Organization (WHO)(2006) life expectancy at birth is defined as the average number of years that a new born is expected to live if the current mortality rates continue to prevail. Life expectancy at birth is a clear reflection or indication of the overall mortality level of a population or country at a period of time. It also gives the summary of mortality pattern that cut across all age structure – children and adolescents, adults and the aged of a population or country. It is evident from literature over the years

that Nigeria's life expectancy has increased as a result of reduction in infant and under-5 mortality (CBNSB, 2017 & NDI, 2018).

### **Economic Growth**

Economic growth according to Jhingan (2006) is defined as an increase in output level of a country over a period of time. In this definition, it was explained further that economic growth is related to a quantifiable sustained increase in a country's per capita income or output accompanied by expansion in its labour force, consumption, capital and volume of trade. Similarly, Bisiriyu and Osinusi (2020) viewed economic growth as an increase in productivity of a country over a period of time which brings about better standard of living among the citizens through improvement in social and basic infrastructures such as health care, education and housing among others.

The significance of economic growth cannot be overemphasized as it serves as a catalyst for economic development which is a core objective of every economy.

### **Trend of Nigerian Economic Growth, Maternal Health, Child Mortality and Life Expectancy**

Nigeria is characterised as a lower-middle income with mixed economy and emergent market with currently expanding financial, service, communication and entertainment sectors (World Economic Situation and Prospects, 2014). The country is ranked 30<sup>th</sup> in the world in terms of GDP as of 2011 and its emergent manufacturing sector is the third largest in Africa despite been considered underperforming. In addition, the GDP growth rate of the country grew steadily since its independence to 2019 except for some years (1982 – 1984 and 2016). The economy was growing until 1982 when it plunged into economic crisis that prevail to 1984 and was later corrected with the adoption of Structural Adjustment Programme (SAP). Bisiriyu and Osinusi (2020) cited the study of Akeju and Olanipekun (2014) who revealed the country's GDP at purchasing power parity in 2005 increased more than doubled from \$170.7 billion to \$413.4 billion in 2011 while the actual figure was estimated to be approximately \$520 billion with the inclusion of the informal sector. The GDP per capita increased by 116% from \$1200 per person in 2005 to an estimated value of \$2,600 per person in 2011.

The economy later fell into another recession recently in 2016 when her real GDP dropped. The study of Ogunjimi and Adebayo (2019) revealed the statistical figure that the GDP fell from ₦69023 billion in 2015 to ₦67931 billion in 2016. As of 2019, Nigeria's economy is the largest in the West Africa region, largest in Africa with nominal GDP of \$496.12 billion with GDP per capita of \$2407 and on track of becoming one of the 20 largest economies of the world whereas it presently stand as the 27<sup>th</sup> largest economy in the world according to the International Monetary Fund (IMF) World Economic Outlook Database, 2019.

Infant mortality rate as reported by Ogunjimi and Adebayo (2019) stood at 125.4 per 1,000 live births in 1981 but declined to 124 per 1,000 live births in 1983 and this increased

steadily to 126.2 in 1989 and 1990. However, according to the report of Ogunjimi and Adebayo (2019), this figure plummeted in 1991 to 126 per 1,000 live births and steadily decrease until it reached a double digit of 99.8 per 1,000 live births in 2004. The figure stood at 81.1 per 1,000 live births in 2010 and recently estimated as 66.9 per 1,000 live births in 2016. U5M was also reported to have an unstable pace in Nigeria over the years and this was faster in the 1960's and 1970's than in recent time (Adetunji, 2002). Ahmed *et al* (2000) also reported Nigeria was rated to have had a modest decline in U5M rate in the 1990's alongside some SSA countries (Madagascar, Mauritania & Lesotho).

Maternal mortality rate in Nigeria as at 1981 stood at 362.41 per 1,000 female adult and fluctuated for years until 1993 when it stood at 363.8 per 1,000 female adults. This increased steadily over the years and stood at 393.53 per 1,000 female adults in 2002 and later declined until it reached 359.82 and 333.03 per 1,000 female adults in 2010 and 2016 respectively (Ogunjimi & Adebayo, 2019). However, the country's life expectancy at birth stood at 45.62years in 1981 which later increased steadily in 1985 to 46.13. The figure declined in 1993 and 1994 to 45.84 but increased to 48.25 in the following year. Since 1995, the figure had maintained an upward trend, reaching 48.25years in 2005, 50.85years in 2010 and 53.43years in 2016 (CBNSB, 2017; WDI, 2018).

This indicates that measures and programmes by government and international organisations such as United Nations to combat maternal mortality yielded a significant result. Conclusively from the analysis, it is evident that economic growth, maternal health, child mortality and life expectancy had demonstrated commendable and interesting trends in Nigeria over the years.

### **Empirical Review**

Exploration of literature showed there are lots of time-series and panel researches examining the connection between health outcomes (maternal mortality, child mortality, life expectancy), health expenditure and economic growth in several countries (developed and developing) and regions. Anyanwu and Erhijakpor (2007) investigated the relationship between government health expenditure and health outcomes in 47 African countries between 1994 and 2004 using Robust Least Square Model. Their results showed health expenditure have a statistically significant effect on infant mortality and under-five mortality. Further result from the study revealed both infant and under-five mortality are positively and significantly associated with SSA countries while inverse is true for North Africa countries. In the same vein, Kim and Lane (2013) analyzed the relationship between public health expenditure and public health outcomes nexus among 17 OECD countries between 1973 and 2000. The results of the study showed a negative relationship between government health expenditure and infant mortality rate and a positive relationship between government health expenditure and life expectancy at birth.

Novington, Olakojo and Nowignon (2012) investigated the effects of public and private health care expenditure on health status in SSA countries from 1995 to 2010. The study adopted panel data regression and the results showed that health care expenditure significantly influence health status through improving life expectancy at birth, reducing death and infant mortality rates. Similarly, Nikoloski and Amendah (2017) examined health expenditure and better health outcomes among 14 African countries from 2000 – 2014. The result revealed public health expenditure reduces infant, neonatal and under-five mortality rate while increasing life expectancy at birth significantly. In the study of Shetty and Shetty (2014) on health expenditure and infant mortality rate among 34 Asia countries revealed a significant inverse relationship between health expenditure and infant mortality rate.

In Nigeria, David (2018) in his empirical explanation on the nexus between infant mortality and public health expenditure in Nigeria from 1980 to 2016, the empirical results indicated the presence of significant long-run relationship between infant mortality and government health expenditure. In the study of Edeme, Emecheta and Omeje (2017) on public health expenditure and health outcomes in Nigeria, it was found that an increase in public health expenditure improves life expectancy and reduces infant mortality rates. Also, Bashir (2016) assessed the impact of government health infrastructure on health sector performance from 2000 to 2013 and found a strong and significant inverse relationship between government health expenditure and infant mortality. The study also found a weak positive association between public health spending and life expectancy.

Linking economic growth to health outcomes, Bhalotra (2006) explored the extent to which the reduction in child mortality can be attributed to economic growth in 15 major states of India over a period of three decades. Malik (2006) in his study concluded infant mortality rate, life expectancy rate and crude health rate has significant effect on economic growth proxy by per capita gross national income (GNI). Also, Bloom, Kuhn and Prettnner (2015) in their investigation on the contribution of female health to economic development noted that improved female health and health care facilities enhances demographic transition which results to sustained economic growth.

Similarly, Klobodu, Dawson, Reed and Carpio (2018) examined child health and economic development among six SSA countries (Burkina Faso, Togo, Ghana, Ivory Coast, Botswana and South Africa) between 1960 and 2012. The study concluded maternal and child healths are beneficial for long-term economic growth. The research further recommends that maternal health and child health care should be prioritized within the overall economic growth and development plans. In Nigeria, Ogungbenle, Olawunmi and Obasuyi (2013) in their study on life expectancy, public health spending and economic growth in Nigeria for the period 1997 to 2008 revealed there is no bi-directional causality between life expectancy and economic growth in Nigeria for the years under review.



Finally, Ogunjimi and Adebayo (2019) examined the relationship among health expenditure, health outcomes and economic growth in Nigeria between 1981 and 2017, the results from their analysis showed a unidirectional causality running from health expenditure to infant mortality and no causality between real GDP and infant mortality. Furthermore, the result showed a unidirectional causal relationship running from health expenditure and real GDP to life expectancy and maternal mortality; and a unidirectional causal relationship running from real GDP to health expenditure.

**Theoretical Framework**

This study is guided by the Solow Growth Theory. This was chosen being the basic and fundamental reference point for almost all analyses of growth. The theory supports the fact that for an economy to produce certain output that will enhance growth, there must be some certain inputs which labour is one which must play a significant role. The Solow Growth Theory focuses on four variables: Output (Y), Capital (K), Labour (L) and “Knowledge” or the “Effectiveness of labour” (A); thus the production function takes the form:

$$Y = f(K, L, A) \dots\dots\dots (1)$$

The above equation changes form to  $Y = f(K, AL) \dots\dots\dots (2)$

This is because knowledge is embedded in labour and it is explained by Solow noting there is a multiplicative relationship between labour (L) and knowledge (A). However, labour (L) ensures the utilization of capital (K) in production process. The multiplicative effective of A and L as explained by Solow is referred to as effective labour because acquisition of knowledge or skill makes labour more effective and productive.

The theory further argued that the production function has constant returns to scale in its two arguments – capital and effective labour. This simply means doubling labour and capital doubles the amount of output within the economy with A held constant. Multiplying both factors of production L and K by any non-negative constant c causes output to change by the same factor:

$$F(cK, cAL) = cF(K, AL) \text{ for all } c \geq 0 \dots\dots\dots (3)$$

Solow in his analysis proceeds to check equation (3) above of constant returns to scale using the popular Cobb Douglas production function which is specified as:

$$F(K, AL) = K^\alpha, AL^{1-\alpha} \dots\dots\dots (4)$$

where  $(0 < \alpha < 1)$ , introducing the constant c;

$$\begin{aligned} F(K, AL) &= (cK)^\alpha (cAL)^{1-\alpha} \dots\dots\dots (5) \\ &= c^\alpha K^\alpha \cdot c^{1-\alpha} (AL)^{1-\alpha} \\ &= c^\alpha c^{1-\alpha} \cdot K^\alpha (AL)^{1-\alpha} \\ &= cF(K, AL) \end{aligned}$$

From the foregone theoretical analysis, it is obvious that the role of labour is cogent to economic growth and as such, their health status is paramount to ensure increase in productivity. As the theory posit, doubling the amount of labour and capital doubles productivity; in the same vein decreasing the amount of labour decreases productivity ceteris paribus. However, increase in mortality rate, child mortality and decrease in life expectancy will decrease labour force which will surely in turn decrease productivity and retard economic growth of the nation.

**Model Specification**

The aforementioned Cobb Douglas production function as used by Solow in his analysis was adopted and modified for the study under investigation. The least square regression equation based on the functional relation is stated as follows:

$$GDP = a_0 + a_1MMR + a_2IMR + a_3U5M + a_4LE + a_5POP + U \dots\dots\dots (6)$$

**Where:**

- a<sub>0</sub> = Intercept
- a<sub>1</sub>, a<sub>2</sub>, a<sub>3</sub>, a<sub>4</sub>&a<sub>5</sub> = Regression Coefficients
- GDP = Gross Domestic Product Growth Rate
- MMR = Maternal Mortality Rate
- IMR = Infant Mortality Rate
- U5M = Under-5 Mortality Rate
- LE = Life Expectancy
- POP = Population Growth Rate
- U = Error Term

**Data and Estimation Techniques**

This study employed time series data on maternal health given by maternal mortality rate, child mortality given by infant mortality rate and under5 mortality rate, life expectancy, population growth rate and economic growth given by gross domestic product growth rate for the period 1990 to 2019. The secondary data were collected from World Bank Data site while the sourced data were analyzed with the specified multiple regression model using the unrestricted Classical Least Square. The estimated parameters are subjected to evaluation using the F-statistics and t-statistics while the overall stability is tested using the adjusted R<sup>2</sup>and Durbin Watson test. Furthermore, the Pairwise Granger Causality Test was employed to examine the direction of causality among the variables of the study.

**Results of the Findings**

Table 1 below shows the result of the Unit Root test for stationarity. The Augmented Dickey Fuller test was used to ascertain the time series properties of all variables employed in the model so as to avoid spurious regression which results from the inclusion of two or more non-stationary time series data in regression analysis.

### Test of Stationarity: Augmented Dickey Fuller test

**Table 1: Summary of the ADF Unit Root Test**

Variables	Test Statistics	5% Critical value	Probability	Remarks
GDP	-3.261566	-2.967767	0.0264	Stationary at level
IMR	-3.783385	-2.976263	0.0082	Stationary at level
LE	-4.628087	-3.004861	0.0015	Stationary at level
MMR	-4.255702	-2.971853	0.0025	Stationary at first difference
POP	-4.603667	-2.976263	0.0011	Stationary at second difference
U5M	-3.164556	-3.004861	0.0362	Stationary at level

Source: Authors' Computation, 2020

Table 1 reveals GDP, IMR, LE and U5M were found to be integrated of order zero and this implies that the data were stationary at level form. MMR and POP were found to be integrated of order one and two at level form respectively and therefore, became stationary after differencing once and twice. Differencing was necessary so as to avoid the problem of spurious regression when series are used in their non-stationary form.

The results from the multiple parameters regression specified to investigate the impact of maternal health, child mortality and life expectancy on economic growth in Nigeria from 1990 to 2019 using E-Views version 9 is summarized below:

**Table 2: Estimated Regression Results**

Dependent Variable: GDP

Method: Least Squares

Date: 09/18/20 Time: 09:02

Sample: 1990 2019

Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
<b>C</b>	151.0113	157.0965	0.961265	0.3460
<b>IMR</b>	5.206780	11.96325	0.435231	0.6673
<b>LE</b>	-6.326094	1.872581	-3.378276	0.0025
<b>MMR</b>	0.052717	0.026337	2.001672	0.0567
<b>POP</b>	60.02731	27.92223	2.149803	0.0419
<b>U5M</b>	-3.461846	6.546944	-0.528773	0.6018
R-squared	0.621604	Mean dependent var		4.401808
Adjusted R-squared	0.542772	S.D. dependent var		4.116132
S.E. of regression	2.783272	Akaike info criterion		5.061988
Sum squared resid	185.9185	Schwarz criterion		5.342228
Log likelihood	-69.92982	Hannan-Quinn criter.		5.151639
F-statistic	7.885137	Durbin-Watson stat		2.257023
Prob(F-statistic)	0.000164			

Source: Authors' Computation, 2020

The results of the regression analysis above revealed that infant mortality rate (IMR), maternal mortality rate (MMR) and population growth rate (POP) exert positive impact on economic growth in Nigeria from 1990 to 2019 in Nigeria. These do not conform to a-priori expectation base on expected signs expect population growth; it implies with a unit increase in infant mortality rate, maternal mortality rate and population growth, the Nigerian gross domestic product growth rate will increase by 5.2067, 0.0527 and 60.0273 respectively. On the other hand, the result also showed that life expectancy (LE) and under 5 mortality rate (U5MR) exert negative impact on Nigeria economic growth over the years of study. This implies that life expectancy and under5 mortality were growth retarding agents over the period of study. The magnitude indicates a unit increase in life expectancy and under5 mortality will deteriorate the growth of gross domestic product by 6.3261 and 3.4618 units respectively. The sign of under-five mortality rate conform to a-priori expectation while that of life expectancy does not.

Testing the partial significance of the estimated parameters of the model from table 2 above, the results show that the estimate parameters for life expectancy (LE) and population growth rate (POP) were found to be partially statistically significant at 5% critical level ( $p$ -values  $<0.05$ ) while the estimated parameters for maternal mortality rate (MMR), infant mortality rate (IMR) and under-five mortality rate (U5M) were found to be statistically insignificant at 1% and 5% critical levels. The result is in line with that of Malik (2006) who examined the relationship between health and economic growth and concluded that life expectancy has significant effect on economic growth. Also, the result corroborate with the finding of Klobodu et. al. (2018) who concluded that child health is beneficial for long-term economic growth in his study on child health and economic development in some selected sub Saharan Africa countries.

The F-statistics which measures the overall significance of the model shows that all incorporated parameters in the model maternal mortality rate (MMR), infant mortality rate (IMR), under-five mortality rate (U5M), life expectancy (LE) and population growth rate (POP) have joint significant on economic growth in Nigeria at 1% and 5% critical levels. The value of the adjusted  $R^2$  reveals about 54% of the total variation in economic growth is explained by the explanatory parameters of the model. Also, the Durbin Watson statistics reveals there is no presence of serial autocorrelation among the residuals because its value (2.2570) is very close to two. Therefore, parameters estimated from the model are stable, efficient and suitable for policy simulation.

**Table 3: Summary of Pairwise Granger Causality Test**

Variables	F - statistic	Probability	Remark
<b>IMR</b> <b>GDP</b>	2.45457	0.1081	No Causality
<b>GDP</b> <b>IMR</b>	1.20069	0.3192	No Causality
<b>LE</b> <b>GDP</b>	1.23781	0.3086	No Causality
<b>GDP</b> <b>LE</b>	4.11191	0.0297	Causality
<b>MMR</b> <b>GDP</b>	0.12215	0.8856	No Causality
<b>GDP</b> <b>MMR</b>	4.62894	0.0204	Causality
<b>POP</b> <b>GDP</b>	3.02620	0.0681	Causality
<b>GDP</b> <b>POP</b>	0.43632	0.6516	No Causality
<b>U5M</b> <b>GDP</b>	2.83632	0.0792	Causality
<b>GDP</b> <b>U5M</b>	1.03844	0.3700	No Causality

Source: Authors' Computation, 2020

Table 3 above presents the summary of the Granger Causality test, the test was carried out using an optimal lag length of two. The result indicates that there is unidirectional causality from gross domestic product to life expectancy and maternal mortality rate and from under-five mortality rate to gross domestic product. Also, unidirectional causality from infant mortality rate to maternal mortality rate, maternal mortality rate to life expectancy and under-five mortality rate to maternal mortality rate; all leading to the rejection of the null hypotheses (see table 2 in the appendix). Furthermore, the Granger Causality test results reveal there is bidirectional causality between life expectancy and infant mortality rate, population growth rate and infant mortality rate, under-five mortality rate and life expectancy, population growth rate and life expectancy and finally between under-five mortality and population growth rate leading to the rejection of null hypotheses. The results also indicate there was no causality between infant mortality rate and economic growth over the period under study.

The result of the study is in line with the result of Klobodu *et al* (2018) who found that child health granger cause economic growth in six SSA countries – (Burkina Faso, Togo, Ghana, Ivory Coast, Botswana and South Africa). Also, the result corroborate with that of Ogunbenle *et. al.* (2013) who revealed that there is no bidirectional causality between life expectancy and economic growth in Nigeria over their years of analysis. In addition, the study of Ogunjimi and Adebayo (2019) also supported result of the study that there is no causality between real GDP and infant mortality.

**Conclusion**

The study investigated maternal health, child mortality, life expectancy and economic growth in Nigeria for the period spanning from 1990 to 2019 to empirical data on parameters of the study. The classical least square method and granger causality test were adopted to analyze the specified model of the study. The results from the study empirical analyses found that maternal mortality, infant mortality and population growth exerts a positive impact on economic growth with only population growth rate found to be

statistically significant. The study also reveals life expectancy and under-five mortality exerts negative impact on economic growth in Nigeria over the years of study. The inverse relationship of life expectancy was found to be statistically significant. The finding on under-five mortality conformed to a-priori expectation, though not significant while that of population growth conformed and as well statistically significant; validating the Solow theory as reviewed that doubling labour will double the output level.

However, the granger causality test results reveal bidirectional causality from gross domestic product to life expectancy, from gross domestic product to maternal mortality, from population growth to gross domestic product, under-five mortality to gross domestic product and no causality between infant mortality and gross domestic product over the data period of analysis. A major implication of these results is that under-five mortality, infant mortality and population growth over the years are capable of influencing economic growth in Nigeria.

### **Recommendations**

Based on the findings of the study, the following policy recommendations were made:

- i. Government should formulate plans and strategies at reducing child mortality at all level (federal, state and local) to ensure economic growth.
- ii. Governments and their agencies should work with United Nations towards reducing maternal mortality and child mortality and as well increasing life expectancy at birth as these contributes to population growth rate which spurs economic growth.
- iii. Private sectors should also be encouraged by government to aid the attainment of reduced maternal mortality and child mortality to reap the gain of productivity needed for economic growth and development.

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## Appendix

Table 1: Estimated Regression Result

Dependent Variable: GDP

Method: Least Squares

Date: 09/18/20 Time: 22:05

Sample: 1990 2019

Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	151.0113	157.0965	0.961265	0.3460
IMR	5.206780	11.96325	0.435231	0.6673
LE	-6.326094	1.872581	-3.378276	0.0025
MMR	0.052717	0.026337	2.001672	0.0567
POP	60.02731	27.92223	2.149803	0.0419
U5M	-3.461846	6.546944	-0.528773	0.6018
R-squared	0.621604	Mean dependent var		4.401808
Adjusted R-squared	0.542772	S.D. dependent var		4.116132
S.E. of regression	2.783272	Akaike info criterion		5.061988
Sum squared resid	185.9185	Schwarz criterion		5.342228
Log likelihood	-69.92982	Hannan-Quinn criter.		5.151639
F-statistic	7.885137	Durbin-Watson stat		2.257023
Prob(F-statistic)	0.000164			

Source: Authors' Computation, 2020

Table 2: Pairwise Granger Causality Tests

Date: 09/18/20 Time: 21:52

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.	Inference/Conclusion
IMR does not Granger Cause GDP	28	2.45457	0.1081	No Causality
GDP does not Granger Cause IMR		1.20069	0.3192	No Causality
LE does not Granger Cause GDP	28	1.23781	0.3086	No Causality
GDP does not Granger Cause LE		4.11191	0.0297	Causality

MMR does not Granger Cause GDP	28	0.12215	0.8856	No Causality
GDP does not Granger Cause MMR		4.62894	0.0204	Causality
POP does not Granger Cause GDP	28	3.02620	0.0681	Causality
GDP does not Granger Cause POP		0.43632	0.6516	No Causality
U5M does not Granger Cause GDP	28	2.83632	0.0792	Causality
GDP does not Granger Cause U5M		1.03844	0.3700	No Causality
LE does not Granger Cause IMR	28	6.08322	0.0076	Causality
IMR does not Granger Cause LE		8.14456	0.0021	Causality
MMR does not Granger Cause IMR	28	1.51366	0.2412	No Causality
IMR does not Granger Cause MMR		2.67384	0.0903	Causality
POP does not Granger Cause IMR	28	5.76206	0.0094	Causality
IMR does not Granger Cause POP		3.09327	0.0646	Causality
U5M does not Granger Cause IMR	28	1.34012	0.2815	No Causality
IMR does not Granger Cause U5M		0.88018	0.4282	No Causality
MMR does not Granger Cause LE	28	9.05521	0.0013	Causality
LE does not Granger Cause MMR		2.38950	0.1141	No Causality
POP does not Granger Cause LE	28	7.05998	0.0041	Causality
LE does not Granger Cause POP		8.75606	0.0015	Causality
U5M does not Granger Cause LE	28	9.27989	0.0011	Causality
LE does not Granger Cause U5M		7.17019	0.0038	Causality
POP does not Granger Cause MMR	28	2.45909	0.1077	No Causality
MMR does not Granger Cause POP		1.85571	0.1790	No Causality
U5M does not Granger Cause MMR	28	3.08913	0.0648	Causality
MMR does not Granger Cause U5M		1.34172	0.2811	No Causality
U5M does not Granger Cause POP	28	3.30808	0.0546	Causality
POP does not Granger Cause U5M		5.69954	0.0098	Causality

Source: Authors' Computation, 2020

## **Socio-Demographic Correlates of Prisoners' Psychological Wellbeing in Wamba Correctional Service Centre Nasarawa State, Nigeria.**

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### **Abstract**

The study investigated the influence of sociodemographic variables such as marital status and length of stay or duration of imprisonment on inmates psychological wellbeing in Wamba Correctional Services Centre, Nasarawa State, Nigeria. The participants consisted of 98 male prison inmates (never married 32; Married 66) from the Correctional Service Centre, Wamba which is the area for this study. The 98 participants responded to the Ryff's psychological wellbeing scale. Institutional approval was obtained from the correctional institution authorities. Two hypotheses were proposed and tested by means of simple statistical techniques (t-test) using mean and standard deviation and one-way ANOVA for the data analysis. Result of the t-test showed a non-statistically significant difference between the single and married inmates within the correctional centre environment in term of psychological wellbeing. This implied that single inmates do not have a better psychological wellbeing when compared to married inmates. The result from the one-way ANOVA revealed a non-statistically significant difference between the psychological wellbeing of inmates serving long sentence and other inmates (short sentence and awaiting trial). Hence, the two hypotheses were rejected. The study concluded that prisoners' psychological wellbeing has nothing to do with their socio-demographic variables. Based on the findings, the study recommended that correctional services centres should be more habitable and accommodating so that inmates can continue to have or develop a better psychological wellbeing while serving their terms of imprisonment.

**Keywords:** Correctional Service Centre, Correlates, Prisoners, Psychological Well-being and Socio-demographic.

### **Introduction**

People who are incarcerated for one offense or the other may have issues that will affect their psychological well-being. For example, finding oneself in a cell that houses many inmates may lead to inmates having issues with their sleep and personality traits or dispositions which may subsequently affect their psychological well-being.

Psychological well-being of prison inmates is an important research field; thus this issue increasingly receives global concern. Taking the UK as an example, the UK Psychiatric Morbidity Survey 2012, reported significant increases in anxiety and depression among the inmates aged from 18 to 24 years. Rich and White cited in Baidawi (2015) identified

positive mental health services as a protective role against health risk behaviours, but negative mental health would result in risky behaviours among inmates. In addition, a large number of cross-sectional evidence shows that individuals having much depression and hopelessness tends to be less physically active and has more negative feelings, such as suicidal thoughts Rich and White in (Baidawi, 2015).

Macaskill, Robins and Byrne (2010) studied the inmates from prison in the UK, and found rates of mental illness among inmates are same as that of the general population, whereas only 5.1% of them can receive treatment. Therefore, easier access to specialist treatment is in great need among inmates. By contrast, some extant study findings showed that Hong Kong prison inmates are more vulnerable than their peers regarding mental disorders, because their health is poorer and they have higher rates of depression and anxiety.

Prison inmates are five times more likely to be recognized with mental health issues. The different context determines the different study research results, and thus studying inmates' psychological well-being should be closely related to the specific context. There are a variety of factors influencing prison inmates' mental health. For prison inmates, their failure to meet basic physical activity guidelines and increasing sedentary behaviours are significant factors. Among a wide variety of variables, psychological wellbeing is a significant factor, and wellbeing disorder frequently co-occurs with mental health problems.

Many studies have reported sex differences in personality traits, and the prevalence of insomnia and depression. Several studies have reported a relationship between personality traits and wellbeing in Caucasians. Lichstein, Damian and Roberts (2000) have documented racial differences in psychological wellbeing. Although there are several studies in Asian, most of them have been conducted among adolescents, university students, or small samples. Besides, they focused on only the neuroticism. It needs to be examined whether the psychological wellbeing would be related with the five factors of personality in broad range of age. The prison environment houses varieties of offenders based on their offenses as well as their socio-demographic classifications in terms of gender, age, marital status, length of stay or duration of imprisonment among others. Studying inmates psychological well-being matters a lot in today's prison system variables. This is because there are always issues of constant uprising and delay sentences across the prison system most especially the issue of overcrowding (Awopetu, 2014), and inmates have to adjust to such surrounding in other to live the life of prison. As a result, their Psychological well-being will seriously be affected. This study therefore investigated the psychological well-being of inmates with respect to some of their demographic variables such as marital status, sex and length of stay or duration of imprisonment.

## **Hypotheses**

This study is guided by the following hypotheses;

- i. Inmates who are single will have better psychological well-being than those who are married.
- ii. Inmates serving long period of imprisonment are likely to have different psychological wellbeing with others in the correctional service environment.

## **Literature Review**

### **Psychological Wellbeing**

Psychological well-being is simultaneously the absence of the crippling elements of the human experience such as depression, anxiety, anger, fear and the presence of enabling one's positive emotions, meaning, healthy relationships, environmental mastery, engagement and self-actualization. Psychological wellbeing is above and beyond the absence of psychological ill-being and it considers a broader spectrum of constructs than what is traditionally conceived of as happiness (Seligman & Csikszentmihalyi, 2000). Rachel, Annette, Jan and Lalage (2012) noted that psychological well-being consists of positive relationships with others, personal mastery, autonomy, a feeling of purpose and meaning in life, and personal growth and development. Psychological well-being is attained by achieving a state of balance affected by both challenging and rewarding life events (Rachel, Annette, Jan & Lalage, 2012).

Psychological well-being is a term which has different meanings to different people. According to Levi and Maslow (1987) well-being is a dynamic state characterized by a reasonable amount of harmony between an individual's abilities, needs and expectations, and environmental demands and opportunities. In their systematic review of the definitions (Pollard & Lee, 2003) describe well-being as a "complex, multi-faceted construct that has continued to elude the researchers' attempt to define and measure it." Broadly speaking, well-being has been defined from two perspectives. The clinical perspective has generally operationalized well-being as the absence of negative conditions such as depression, distress or anxiety whereas the psychological perspective defines well-being as the prevalence of positive self attributes (Ryff & Singer, 1996; Seifert, 2005). It is a person's evaluative reactions to his or her life, either in terms of life satisfaction, 'cognitive evaluations' or affect 'ongoing emotional reactions' (Kashdan, Biswas, Diener & King, 2008). In general terms, it can be defined as the subjective feeling of contentment, happiness, satisfaction with life's experiences and of one's role in the world of work, sense of achievement, utility, belongingness and no distress, dissatisfaction or worry etc. It emphasizes positive characteristics of growth and development. (Seifert, 2005) gave a multidimensional model of well-being which included six distinct components of positive psychological functioning. In combination these dimensions encompass a breadth of wellness that includes positive evaluations of oneself and one's past life despite the

awareness of their limitations (self-acceptance), a sense of continued growth and development as a person (personal growth), the belief that one's life is purposeful and meaningful (purpose in life), the possession of quality relations with others (positive relations with others), the capacity to manage effectively one's life and surrounding world (environmental mastery), and a sense of self-determination (autonomy). Each dimension of Ryff's psychological well-being model reflects different challenges that individuals face in their lives. The components conceptualized by (Seifert, 2005) are;

- i. **Autonomy:** Autonomy is characterized by an individual's self-determination and his independence in making his own decisions. It also refers to self-evaluation by personal standards and regulating behaviour from within.
- ii. **Environmental Mastery:** This places emphasis on creating a surrounding context that suits one's personal needs and capacities. It also involves managing the environment by controlling complex situations and making effective use of opportunities.
- iii. **Personal Growth:** This dimension is characterized by a feeling of continued development of an individual's potential and viewing one's self as growing and open to new experiences. It is basically concerned with self-realization of an individual.
- iv. **Positive Relations with Others:** This dimension emphasizes having warm and trusting relationships with others, having feelings of empathy, affection and intimacy towards others.
- v. **Purpose in Life:** Creating meaning and direction in life is central to this dimension. Having goals in one's life and a sense of direction that makes life more meaningful and gives it a purpose.
- vi. **Self-Acceptance:** It is a kind of self-evaluation that involves awareness and acceptance of both personal strengths and weaknesses.

### **Theoretical Framework**

This study is anchored on the six-factor model of Psychological Well-being. The theory was developed by Carol Ryff in (Gao & McLellan, 2018) which determines six factors that contribute to an individual's psychological well-being, contentment, and happiness (Seifert, 2005). According to Ryff in Gao & McLellan (2018), Ryff's model is not based on merely feeling happy, but is based on Aristotle's Nicomachean Ethics, "where the goal of life is not feeling good, but is instead about living virtuously." Six factors are considered key-elements of psychological well-being as listed above.

Psychological well-being may be defined as one's emotional and cognitive evaluations of his or her own life (Kashdan, Biswas, Diener & King, 2008). These evaluations include one's mood, emotional reactions to events and judgment about life satisfaction. Psychological well-being is the outcome of experiences and interactions relating to various

aspects of our being. It is influenced by life events, personality characteristics (Kashdan, Biswas, Diener & King, 2008), personal goals, perceived social support, the type of attributions one makes, etc. The personality of the individual is crucial in this regard. Personality refers to the enduring styles of thinking and behaving when interacting with the world. It relates to unique and relatively qualities that characterize behaviour and thought. Since personality is a core factor which determines our reactions and adjustments, psychological well-being during such a stressed phase as adolescence should be studied within its perspective.

The Dynamic Equilibrium model assert that individuals have a distinct average amount of well-being that is determined by his/her personality (Christopher *et al*, 2011). According to them, people with extraverted personalities, for example, are more likely to experience certain events as compared to those who are most introverted. These events, in turn, affect one's baseline level of psychological well-being. While unusual events may shift an individual above or below his level, the Dynamic Equilibrium Model suggests that the individual will return to their baseline level as the circumstances normalize (Kashdan, Biswas, Diener & King, 2008).

This work is relevant to the study under investigation because of individuals strive for a life defined by affiliation, intimacy and contributing to one's community can be described as aspiring to fulfil their intrinsic psychological needs.

The limitation of Ryff scales is that it relies on self-reported assessments of psychological wellbeing. As with all self-report instruments, inmates may respond in ways that are socially desirable rather than reveal their actual response to each statement. A final limitation is that the validity of the instrument has been tested not on gender (both male and female) inmates, but on males' inmates only. While this is a limitation, given the ever-growing proportion of females' inmates within Correctional Centre, though this is of minor concern.

### **Marital Status and Prisoners' Psychological Wellbeing**

The issue of whether being a single or married prison inmate affects prisoners' responses to the prison environmental changes, challenges or situations has been investigated by researchers both in Nigeria and other parts of the world. Awopetu (2014), used a cross sectional survey design and sampled 980 prison inmates from Agodi, Ilesha and Ado prisons in South West Nigeria and examined the influence of demographic variables and prison overcrowding on inmates psychological well-being. One of the variables studied was marital status of the prison inmates in which 557 were single inmates, 270 are married and about 71 were divorced inmates. Though, she explained that 82 inmates could not indicate their marital status. The researcher administered a self-constructed Prison Overcrowding Questionnaire designed to measure amount of privacy, demands upon



attention and social withdrawal among others. While the General Health Questionnaire was also administered to tap information on the psychological well-being of the inmates.

Additionally, the researcher employed the multiple regression statistics to analysed the data on marital status (single and married) alongside with other demographic variables such as age, duration of stay, category of prison. From the results obtained, it shows that prisoners who are married had higher psychological well-being than prisoners who were single. This is represented by the "Beta" ( $\beta = .14, p < .01$ ). This implies that difference exist on how inmates respond to the prison environment based on their marital status (Tafida, Nweze, & Udegbe, 2018).

Several studies have revealed the influence of marital status on prisoner's psychological well-being. For example, studies by Gove (1972); Tudor (1973); Radloff and Essex (1975) garnered additional evidence that marriage was more of a mental health benefit for men than women in terms of psychological distress. Yet most studies and reviews done since the early 1970s have concluded that a mental health advantage exists for both married men and married women in contrast to their unmarried peers (Gore & Mangione, 1983; Gove, Highes & Style, 1983; Gove, Hernandez & Puente, 1990; Mirowsky & Ross, 1989; Pearlin & Johnson, 1977). Unmarried are not, however, all equally distressed; formerly married persons report more distress than never-married persons (Pearlin & Johnson, 1977).

Global happiness, the most commonly examined measure of positive psychological well-being, also has been consistently related to marital status; married men and women exhibit an advantage compared with their unmarried peers (Glenn & Kumari, 1975, Lee, Seccombe & Shehan, 1991). However, national trend data from the General Social Survey spanning the 1970s and the 1980s have revealed a narrowing of the happiness gap between the married and the never-married. This trend was noted particularly for men and for younger adults (ages 25-39 years).

Between 1972 and 1982, there was a significant increase in the proportion of never-married men who indicated that they were "very happy," as well as a significant decrease in the proportion of younger married women during this period who indicated high levels of positive well-being (Glenn & Weaver, 1979). Lee, Seccombe and Shehan (1991) extended this period analysis to 1989 and found that the gap increased somewhat during 1987 and 1988, but then diminished again in 1989. The changes found in happiness by marital status were most pronounced among young adults (for women aged 20-25 years and for men aged 26-39 years). A less robust effect was also found for women aged 26-39 years.

### **Duration of Imprisonment and Prisoners' Psychological Well-Being**

Duration of imprisonment is a period of serving prison terms as imposed by the court which ranges from less than one year which is considered as short term imprisonment to one year

and above as longer period of serving prison sentence or term. It also varies according to the law of a country.

Thompson and Loper (2005) opined that psychological wellbeing patterns in incarcerated women with difference on sentence duration examined both prisoners who are serving long term, medium term and shorter term. Their findings revealed that prisoners who are serving long term and medium term reported poor adjustment and committed more non-violent institutional offences than prisoner who were on short term imprisonment.

Also, the study by Mackenzi and Goodstein (1985) showed differences in sentence duration. The researchers compared long term and short term inmates from the large maximum security prisons and measured their level of stress (anxiety, depression, psychosomatic illnesses, and fear), psychological wellbeing (prisonization) criminal history, self-esteem and demographic characteristics. The results of their study showed that prisoners who were new to prison and anticipated serving long prison term were found to report higher levels of stress and lower self-esteem than prisoners who had already completed long terms in prison. In addition, the study found that short-term inmates that were new to prison also reported less depression and few psychosomatic illnesses as compared to those who are new inmates with long sentences.

Thompson and Loper (2005) studied the psychological wellbeing patterns in incarcerated women with differences on sentence length. They adopted a survey research design and randomly selected a total of 692 female inmates serving different length of imprisonment ranging from short term (prisoners convicted for a period of less than 2 years to 10 years) and long term imprisonment (prisoners convicted for a period of 10 years and above). Furthermore, the study measured the variables through two separate instruments such as the Brief Symptom Inventory and the prison psychological wellbeing questionnaire whereas the prison records were used to get valid information on institutional misconduct.

In terms of the finding of the study, prisoners who were serving both medium and long terms imprisonment reported poor psychological wellbeing and committed more non-violent institutional offenses than prisoners who were on short term imprisonment. The result further revealed that sentence duration has no any significant relationship with the emotional aspect of psychological wellbeing of the prisoners.

Mackenzie and Goodstein (1985) compared long term and short term inmates from three large maximum security prison and reported their levels of stress (anxiety, depression, psychosomatic illness, fear), psychological wellbeing (prisonization), criminal history, self-esteem and demographic characteristics.

Their findings revealed that inmates who are new to prison and anticipated serving long prison terms were found to report higher levels of stress and lower self-esteem than inmates who had already completed long terms in prison. In addition, short term inmates that were

new to prison also reported less depression and few psychosomatic illnesses as compared to those who are new inmates with long sentences.

Also, World Prison Brief (2017) reported that 68, 259 persons were reportedly held in 240 facilities with an official capacity of 50,153 which is 26.5% increase that is making the occupancy rate of 126.5%. However, some reports put occupancy rates at 800%. Female prisoners make up about 2% of prisoners and another 2% are juvenile offenders; an estimated 67.9–77% of inmates in Nigerian prisons are classified as ATPs (Institute for Criminal Policy Research, 2014; World Prison Brief, 2017). Prison conditions are deplorable with inadequate, degrading infrastructure. Overcrowding is a common issue of concern across facilities and so is food and water shortages, inadequate medical supplies, inhumane treatments and extortions have also been reported (Editorial, 2016). Efforts by the federal and state government authorities to reduce the proportion of inmates with Awaiting Trial Person (ATP) status and improve prison conditions are reported in the media but improvements are yet to be seen. In many cases, ATPs stay years beyond the 2–3 months ceiling fixed by the 1999 Nigerian Constitution, thus a breach of human rights is underscored. If a detained person finally receives court hearing and subsequently sentenced to prison, the years served as awaiting trial is normally counted as time already served. Again, the Nigerian Constitution provides that persons detained unlawfully be compensated and publicly apologized to upon release. However, compensations and apologies are rarely observed (Amnesty International, 2015).

However, in another study by (Prakash, Sharma, Singh & Sanger, 2015), Sharma, Singh and Sanger (2015) that compared convicted prisoners and those under trials (awaiting trials) from Birsa Munda Central Jail, Hotwar, Ranchi in India employed cross sectional design and selected 86 participants through a purposive sampling technique. The participants consist of 36 convicted prisoners and 50 under trials and compared the effect of incarceration on their wellbeing. Their participants were aged 25 – 45 years.

The study administered the Personality General Index General Well-being Measure (PGIGWBM) while chi-square test was used to compare the groups. The result of their findings suggest that under trials inmates reported poor or lower well-being compared to those convicted which is represented by ( $t = .277$ ,  $p > .05$ ). The study concluded that incarceration have a great and significant effect on the lives of some prisoners and therefore urged the prison authority to take measures to cater for the welfare of the prisoners for effective psychological wellbeing.

### **Materials and Methods**

The study adopted the survey design approach. Also, the statistics used in analysing the data include the t-test for independent sample and One-way ANOVA. The participants were drawn from Nigerian Correctional Service Centre, Wamba, Nasarawa State, Nigeria.

They were selected using a systematic random sampling technique through inmates' records of 286 inmates as at the time of the study. A total of ninety-eight (98) prison inmates participated in the study; the inmates were all males. In terms of age classifications, 29.6% were within the ages of 18-25 years, 42.9% were aged 26-35 years while those that fell within the age of 36 years and above were 27.6%.

In terms of the marital status of participants, 32.7% were single, 42.9% were married and 24.5% were divorced/separated. With respect to the term of imprisonment, 15.3% were in prison for short term, 35.7% stayed for a long term in prison and 49.0% stayed in prison on awaiting trial (Table 1).

**Table 1: Demographic Characteristics of Participants**

<b>VARIABLES</b>	<b>FREQUENCY</b>	<b>PERCENTAGES</b>
<b>Gender</b>	Male	98
	Female	0
	<b>Total</b>	<b>98</b>
<b>Age</b>	18-25 Years	29
	26-35 Years	42
	36Years Above	27
	<b>Total</b>	<b>98</b>
<b>Marital Status</b>	Single	32
	Married	42
	Divorced/Separated	24
	<b>Total</b>	<b>98</b>
<b>Term of Imprisonment</b>	Short Term	15
	Long Team	35
	Awaiting Trial	48
	<b>Total</b>	<b>98</b>
<b>Religion</b>	Islam	29
	Christianity	69
	<b>Total</b>	<b>98</b>
<b>Education</b>	No Education	6
	Primary	13
	Secondary	31
	Tertiary	48
	<b>Total</b>	<b>98</b>

## Methods of Data Collection

The Ryff's psychological well-being was administered to the participant and it describe below:

### Ryff's Psychological Well-Being Scale

This is a 42 item scale designed to measure psychological well-being of people in six different domains of autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance. The instrument has five responses style ranging from 1-5, where 1 indicates strong disagreement and 5 indicates strong agreement. The Ryff scale is based on six factors, specifically, autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Higher total scores indicate higher psychological well-being. The following are explanations of each criterion, and an example statement from the Ryff inventory to measure each criterion. Ryffs provided the original reliability coefficient of the instrument .85 and the researchers further provided reliability of the instrument to be .84.

### Procedure

Before proceeding with the study, Officer in-Charge of Nigerian Correctional Service Centre Wamba granted approval. After approval, participants were briefed on the purpose of the study and the need for their voluntary participation. The researcher assured the inmates that their responses would be confidential and anonymous. The Correctional Officers assisted in the administration of the instruments.

### Results of the Findings

#### Difference between the Psychological Wellbeing between Single and Married Prison Inmates.

**Table 2: Difference between Single and Married Inmates' Psychological Wellbeing**

Loss of Love ones	N	Mean	SD	df	T	P
Single	32	142.41	28.426	72	0.678	0.500
Married	42	136.81	39.517			

Sig. Level:  $P > .05$

Table 2 presents the mean and standard deviation scores on the difference between single and married inmates' psychological wellbeing. The results revealed that, single inmates ( $\bar{x} = 142.41$ ;  $SD = 28.426$ ) and married inmates ( $\bar{x} = 136.81$ ;  $SD = 39.517$ ). Furthermore, the analysis revealed a no statistically significant;  $t(72) = 0.678$ ,  $P > 0.05$ NS difference between single and married inmates' psychological wellbeing. Thus, the null hypothesis was rejected.

**Hypothesis 1:** Inmates who are single will have better psychological wellbeing than those who are married. This hypothesis was tested using Independent Sample t-test in the tables 2. The analysis revealed a no statistically significant, Hence, the hypothesis was rejected. That is both never-married and married inmates have the same psychological wellbeing.

**Table 3: Means and Standard Deviations of Inmate Term of Imprisonment**

Term of Imprisonment	N	Mean	Standard Deviation
Short Term	15	155.07	33.124
Long Term	35	144.94	33.661
Awaiting Trail	48	139.75	34.824
<b>Total</b>	<b>98</b>	<b>143.95</b>	<b>34.225</b>

Table 3 presents the mean and standard deviation scores of the inmate's term of imprisonment on psychological wellbeing. The results revealed a not statistical difference between the mean and standard deviation of the inmates (short term, long term and awaiting trial) that short term (M= 155.07; SD= 33.124); long term (M= 144.94; SD= 33.661) and awaiting trail (M= 139.75; SD= 34.824). hence, the null hypothesis was rejected.

**Difference between the Psychological Wellbeing of Inmates serving Prison Sentence and others in the correctional service environment.**

**Table 4: Results of One-Way ANOVA on the Psychological Wellbeing of Inmates in terms of their duration of imprisonment.**

Source	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2734.926	2	1367.463	1.172	.314
Within Groups	110883.819	95	1167.198		
<b>Total</b>	<b>113618.745</b>	<b>97</b>			

Table 4 presents the result of the One-way ANOVA which revealed a no statistically significant  $F(2,95) = 1.172, P > .05$ NS difference in the psychological wellbeing of inmates across the term of imprisonment. In other words, the hypothesis was rejected in this study.

**Hypothesis 2:** Inmates serving long period of imprisonment are likely to have different psychological wellbeing with others in the correctional service environment. This hypothesis was tested using Analysis of Variance (ANOVA) in the tables 3 and 4. The analysis prostrated a non-significant difference between the mean and standard deviation of the inmates sentence to long period of time and others (inmates with short period and those awaiting trial). Hence, the hypothesis was rejected. This implies that all inmates (sentence or awaiting trial) in the correctional centre environment have the same psychological wellbeing irrespective of the duration of imprisonment.

## Discussion of Findings

The present study investigates the socio-demographic correlates of prisoners' psychological wellbeing in Wamba Correctional Service Centre Nasarawa State, Nigeria. Two hypotheses were proposed. The findings of this study were discussed based on the already highlighted hypotheses.

### **i. Difference of Psychological Wellbeing between Single and Married Inmates:**

The first hypothesis stated that inmates who are single will have better psychological wellbeing than married inmates. The findings of this study revealed that inmates who are single do not have better psychological wellbeing than those who are married. Similarly, the analysis revealed that there is no statistically significant difference between single and married inmates' in terms of psychological wellbeing. Thus, the hypothesis was rejected in this study. This is in disagreement with previous studies by Gove (1972), Gove and Tudor (1973), and Radloff (1975), who observed differences in relations to how married and single inmates responded to prison environment. A study that was conducted by Gove (1972), Gove and Tudor (1973), and Radloff (1975) garnered additional evidence that marriage was more of a mental health benefit for men than women in terms of psychological distress. Yet most studies and reviews done since the early 1970s have concluded that a mental health advantage exists for both married men and married women in contrast to their unmarried peers (Gore & Mangione, 1983; Gove, Hughes & Style, 1983; Gove, 1990; Mirowsky & Ross, 1989; Pearlin & Johnson, 1977). Unmarried are not, however, all equally distressed; formerly married persons report more distress than never-married persons (Pearlin & Johnson, 1977). In contrast to this, Awopetu, (2014) compared 557 single inmates and 270 married inmates on the psychological wellbeing within the prison environment. Her findings showed that married prison inmates had higher psychological wellbeing than single prison inmates. One plausible explanation for nondifference of the psychological wellbeing of inmates (both married and unmarried) in the present study may be the number of participants used in the study which consisted of 32 single (never married) prison inmates and 66 married (married, divorced/ separated) prison inmates. Given the mixed nature of the previous findings Awopetu, (2014) on marital status and inmates psychological wellbeing, another explanation may be as a result of other confounding factors that the study could not isolate.

### **ii. Difference of Psychological Wellbeing between Inmates who are serving long period and others:**

The second hypothesis which stated that Inmates serving long period of imprisonment are likely to have different psychological wellbeing with others in the correctional service environment. The study revealed that the inmates serving different types of prison terms did not differ in their psychological well-

being. Whereby the result showed long term and other (short-term and awaiting trial) prisoners did not differ on their patterns of overall psychological well-being and therefore the hypothesis was rejected. Further analysis revealed that there is no statistically significant difference in the psychological wellbeing of prison inmates across the duration of imprisonment. This is in contrast with a study conducted by (Charles et al, 2017) which noted that events and concerns in the outside world continue to have an effect on the life and wellbeing of incarcerated persons as they border about family, children etc. particularly worse is prisoners sentenced for long period and those awaiting trial as they continue to face mounting anxiety from the long period and uncertainties in their situations respectively.

### **Conclusion**

The study has investigated the socio-demographic correlates of prisoners' psychological wellbeing in Wamba Correctional Service Centre Nasarawa State, Nigeria.

The study concluded that:

- a. Both single and married prison inmates have comparable level of psychological wellbeing.
- b. Similarly, inmates who are serving long prison sentence do not differ in any way in term of their psychological wellbeing compare to other inmates (those serving shorter prison sentence as well as those on awaiting trial) in the correctional service environment

### **Recommendations**

Based on the findings, the study makes the following recommendations;

- i. To meet the challenges of modern day correctional service centres, it is important that government should design modern correctional service centre that cater for the psychological well-being of the inmates. This will help the inmates to explore their personalities and to serve their terms of imprisonment without any harm to their psychological well-beings.
- ii. There is urgent need for increase in the application of psychological services to inmates in Nigerian Correction Service Centres.
- iii. Inmates should be made to appreciate their surrounding so that they can continue to have positive psychological well-being. iv. All inmates diagnosed with distorted psychological well-being should be offered psychological help from psychological service units.
- iv. The stakeholders in the administration of criminal justice in Nigeria should employ more forensic psychologists into the system. Those psychologists will consistently counsel inmates with issues of psychological well-being, consult lawyers and psychologically analyse inmates to determine their well-being.



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## **Internal Displacement and the Challenge of Election Conduct in Nigeria: A Study of the 2015 General Elections**

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### **Abstract**

Democracy has become the most accepted form of government in the world. The beauty of democracy has been on its inclusiveness in ensuring periodic change of government through free and fair elections. However, the conduct of election has faced numerous challenges, and of late, this has included internal displacement. In the case of Nigeria, 2015 was the first time it was confronted by a large-scale internal displacement in the conduct of its general election. It is against this background that this study investigated the impacts of internal displacement on the 2015 General Elections in Nigeria. This study took a critical look at how the electoral management body confronted this new challenge and the extent it ensured its inclusiveness. The study adopted a survey research, involving the use of primary data collection technique. By this, questionnaire was distributed to the IDPs in Durumi IDP camp, Abuja. Data analysis followed quantitative approach, while Social Dominance Theory propounded by Sidanius and Pratto was adopted as a theoretical prism. Following the research findings, the study concluded that INEC failed to ensure inclusiveness in the election process as most internally displaced persons who had already registered before their displacement were not allowed to vote in the 2015 general elections. The study recommended amongst others, a strong inclusive legislation on participation of IDPs across the country in order to prevent unjustifiable social dominance against some IDPs.

**Keywords:** Displacement, Election, Electoral Participation, Internal Displacement, Internal Displaced Persons, and Social Dominance.

### **Introduction**

Human security is largely the central focus of government as it refers to the value of life of the people of a particular society. Anything that reduces the quality of life, which include - conflict, scarcity of vital resources, environmental degradation or demographic pressures, infringes on human security is considered a threat to human security (Dhirathiti, 2011). In its simplest form, issues ranging from poverty, unemployment, conflict, violence, sicknesses and diseases, to environmental degradation, natural disasters, domestic violence, transnational crimes, and human rights abuses constitute factors which cause insecurity in individuals thereby leading to displacement of these persons from their habitual homes (Betts *et al*, 2006).

One of the significant symptoms of human insecurity crisis is internally displaced persons. As opined by the United Nations Guiding Principles, these are ‘persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border’ (Cited in Oladeji, 2015, p. 44). Internally displaced persons receive little or no attention from the government of their habitual residence. These persons leave their comfort for a life of uncertainty elsewhere which triggers insecurity from within them coupled with the minimal attention received from government thereby exposing these people to economic threats, health threats, personal threats, political threats, environmental threats and community threats. Great concerns have been generated by both local and international agencies due to the poor living conditions of these persons which in turn, leads to poor sanitations therefore a rise in sicknesses and diseases (Emmanuellar, 2015). Importantly, internally displaced persons become dependent on others for basic amenities either on the host community or external intervention (Brookings, 2008).

In Nigeria the activities of Boko Haram have led to internal displacement of good number of Nigerians. The Boko Haram crisis was on going amidst the preparation towards the 2015 general elections. Nigeria began 2015 facing highly polarizing - and potentially destabilizing - elections amid a dangerous territorial advance in the northeast by the violent Islamist insurgent group known as Boko Haram. According to Oladeji (2015), by some estimates, more than 5,500 people were killed in Boko Haram attacks in 2014, and Boko Haram attacks have already claimed hundreds of lives in early 2015. In total, the group may have killed more than 10,000 people since its emergence in the early 2009.

Nigeria experienced a new vista in its electoral history in the 2015 general elections as, for the first time, there was voting among the Internally Displaced Persons (IDPs). Before this period, the country has never experienced prolonged displacement of the magnitude witnessed towards the build up to the 2015 general elections. Therefore, before 2015, IDP voting was alien to Nigeria’s political and electoral process. As 2015 drew closer, the voting rights of IDPs was elevated to the front burner of election discourse. This is because the insurgency in the north eastern part of the country has caused a large number of eligible voters to be displaced from their homes. Apart from the insurgency which was orchestrated by the Islamist militant group – Boko Haram – flooding, herdsman menace, inter-communal clashes fuelled by ethnic and religious tensions, especially in the Middle Belt region, and even elections, have also caused a lot of people to be displaced from their places of abode. As a result of this, many fled for safety to neighbouring states, there was high influx of IDPs to the Federal Capital Territory (FCT) Abuja. They formed IDP Camps and settlements which include Durumi and Kuje IDP Camps, Abuja. However, as the elections drew closer, there were concerns that good number of registered voters would be

disenfranchised, owing to the fact that they have been displaced from their homes/wards where they registered to vote. Thus, as arrangements were being put in place to ensure that the IDPs in the north-eastern part of the country were not disenfranchised, the Independent National Electoral Commission (INEC) announced that registered voters fleeing their present abode to their States of origin for fear of outbreak of violence during and after the general elections would not be allowed to vote in their home States. This generated a lot of controversy, as some argued that by the definition of internally displaced persons, these categories of people qualify as IDPs, because they are persons or groups of persons that have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border.

This provided a situation where arrangement was made for some IDPs to exercise their franchise and some were denied such rights. According to INEC, such people who registered and have obtained their Permanent Voters Cards (PVCs) in one part of the country but have fled to another could only go back to where they were registered if they wished to vote. By this, those in question feared that there could be a repeat of the painful experience of the post-election violence of 2011. This fear was exacerbated by the threats being issued during the campaigns.

The research problem of this study lies in the disturbing increase number of internally displaced persons in Nigeria especially towards the 2015 elections. The Boko Haram sect intensified their fight during the build up towards the 2015 general elections which caused much internal displacement. Apart from the activities of Boko Haram, natural disaster like flood, also the activities of bandits led to the unprecedented increase of Internally Displaced Persons. IDP Camps in the country ran into hundreds of thousands and millions. There was massive influx of IDPs in Abuja, as large number established camps in Durumi and Kuje areas of Abuja. Majority of those displaced persons were eligible voters with Permanent Voters Cards who could no longer exercise their franchise. With the large number of displaced voters, the country was thrown into debate and controversy on whether to make provisions for them to vote, or which category of displaced voters should be enabled to vote. An attempt by the National Assembly to legislate on this proved abortive, leaving INEC to make executive decisions amidst duress. As a result, internal displacement made the 2015 general election to be beclouded by controversy. Such scenario is alien to Nigerian electoral system, and at the same time the issue of internal displacement is becoming phenomenal. Against this challenge, this study examined the implications of the internal displacement on elections with reference to the 2015 general elections focusing on Durumi and Kuje IDP Camps, Abuja.

In line with the background and problem of this study, the following objectives are to be achieved:

- i. To assess the impact of internal displacement on the 2015 general elections in Nigeria.
- ii. To identify the extent to which internal displacement affected the voting rights of the IDPs.
- iii. To ascertain ways through which the franchise of internally displaced persons can be sustained.

Considering these challenges, the study investigated the following:

- i. How has internal displacement impacted on the 2015 general elections in Nigeria?
- ii. To what extent did internal displacement affect the voting right of internal displaced persons?
- iii. How can the franchise of internally displaced persons be sustained?

### **Conceptual Review**

#### **Internal Displaced Persons (IDPs)**

The most commonly used definition of IDPs is premised on the United Nation's (UN) Guiding Principles on Internally Displacement. The Guiding Principles define IDPs as "Persons or group of persons who have been forced or obliged to flee or to leave their homes or places of habitual residences in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violation of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border (cited in Iheme, 2014). Iheme argued that the issue of displacement has become phenomenon, especially considering the rate at which it is spreading. He further maintains that Victims of man-made or natural disasters become IDPs when they no longer live within their residential homes but remain within home country's territory. Internally displaced persons are victims of various kinds of injustices or violent confrontations perpetrated by either their own government against them or by others, such as communal clashes, riots, religious conflicts, terrorism, natural disasters and so on. On the other hand, it is most painful when people are rendered internally displaced due to failure of security operatives to deter an impending attack.

#### **Election**

Many political scholars have viewed the concept of election from different dimensions. Some have equally seen election as a form of political participation which is very pivotal in the practice of democracy and also has the capacity to disrupt democracy and unity of a nation. There may not be doubt about this fact, because in Nigeria people mainly and generally participate in politics during election period. Shashi (2007) has seen election as the process by which public or private officials are selected from a field of candidates by the making of ballots in a vote. He maintains that in politics, the act of choosing a representative or the holder of a particular office is usually by ballot. This assertion shows a representative form of governance in action, which is part of Nigerian political system. In this representative political practice, the people have the right to decide who represents

them. This is in line with the position of Nnanabu (2011) who held that election is an inalienable right of the citizenry to elect their leaders according to the constitution provision of country. For Nnanabu, election is the mandate of the people according to the principle of democracy to vote into power the candidates of their choice. Nnanabu maintains that election is an instrument of power transferred to the people's-oriented government, and the means of achieving democracy is through election. Nnanabu argued that a true democracy cannot be actualized without a viable electoral process which is the authentic and effective means of achieving a virile and uninterrupted democracy, therefore, election is an instrument used in a democratic dispensation for elective position. This assertion presents the legal aspect of election, where it is made clear as the constitutional right of the citizens.

### **Electoral Participation**

Electoral participation varies in intensity from one individual or group to another. At the highest level of intensity, electoral participation could be active; at the low level, it could be passive, even to the point of apathy (withdrawal), which could be determined by the level of political tolerance within the environment (Unanka, 2004). For Unanka, active electoral participation is the kind engaged in both by the political elites and non-elites (the politicians and a select part of masses). The non-elite politicians are people who are not quite accurately called the decision-makers and implementers, but who as members of political parties and pressure groups can contest elections as candidates and vie for political leadership or can significantly influence government decisions. The active masses include those who do not necessarily belong to any political party or pressure group and cannot contest any election for any public office, but who ordinarily can influence governmental decisions, where necessary, by resorting to protest, all these are done in the environment of political tolerance.

### **Theoretical Framework**

Theoretical Framework serves as a prism through which a concept, idea or phenomenon is explained, analysed and understood. Therefore, a theoretical framework is of much relevant to a study of this nature. It is against this background that the theory of Social Dominance is adopted. The theory was first formulated by Sidanius and Pratto (1989) in their book, *Social Dominance: An Intergroup Theory of Social Hierarchy and Oppression*.

The key propositions of the social dominance theory include:

- i. Individuals are stratified by age, sex and group. Group identification is based on ethnicity, religion, nationality.
- ii. Human social hierarchy consists of a hegemonic group at the top and negative reference groups at the bottom.
- iii. As role gets more powerful, the probability it is occupied by a hegemonic group increase (law of increasing proportion).



- iv. Racism, sexism, nationalism, geographical location and classism are all manifestations of this same principle of social hierarchy.

Following the propositions, social dominance is a theory of inter-group relations that focuses on the maintenance and stability of group-based social hierarchies. According to the theory, group-based inequalities are maintained through three primary inter-group behaviours – institutional discrimination, aggregated individual discrimination, and behavioural asymmetry.

The theory proposes that widely shared cultural ideologies, that is, legitimizing myths, provide the moral and intellectual justification for these intergroup behaviours. The theory begins with the observation that human social groups tend to be organized according to group-based social hierarchies in societies. These hierarchies have a trimorphic (3-form) structure based on (1) age (adults have more power and higher status than children); (2) gender (men have more power and higher status than women); and (3) arbitrary-set, which are group-based hierarchies that are culturally defined and do not necessarily exist in all societies. It is this arbitrary-set hierarchy aspect that this study adopted in its analysis.

Arbitrary-set hierarchies can be based on ethnicity (for example, Whites over Blacks and vice versa); religion (Christians over Muslims, and vice versa); nationality (Yorubas over Hausa/ Fulani, and vice versa) and geographical locations (North and South, North West, North East, North Central, South East, South West and South South) etc. Human social hierarchies consist of a hegemonic group at the top and negative reference groups at the bottom. More powerful social/political roles are increasingly likely to be occupied by a hegemonic group, than the dominated group, and this domination is justified by legitimizing myths. Legitimizing myths are beliefs justifying social dominance, such as sacred myths (for example, the divine right of kings, or the born-to-rule mentality of one ethnic group over others).

The 2015 Nigeria General Elections witnessed the adoption of voting modality by INEC to provide the necessary conditions for only the IDPs resident in the North East Camps to vote, against other IDP camps located in other parts of the country. This also includes the IDPs who are from North East but residing outside the IDP camps in North East.

This policy by INEC generated a lot of controversy during the 2015 general elections, accusing INEC of arbitrary set-hierarchy which involves protecting and preferring a set of IDP extract against the others, and discrimination based on geographical location which is in line with the highlights of the theory. This theory captures and explains the behaviour of INEC in enabling the IDPs to participate in the 2015 general elections, and further limited it to only IDPs residing in the North East, and making it easier for them by providing modalities which include: change in residency requirement for IDPs; mass transfers of the registration of identified IDPs to their new locations; creation of special

voting centres for IDPs in the north east; and distribution of outstanding PVCs to IDPs in their camps before the election.

In giving special consideration to the IDPs resident in the North East, INEC through its administrative mechanisms granted a waiver to areas of the Electoral Act that could impede these categories of IDPs from participating. This include: waiver on mass transfer of the registration of identified voters to new locations, late redistribution of outstanding PVCs to IDPs in their camps. The theory identifies the action of INEC in considering only the IDPs resident in IDP Camps in the north east in the 2015 general elections as arbitrary-set hierarchy on geographical location.

### **Internal Displaced Persons and the 2015 General Elections**

As the 2015 general elections drew near, voting rights of IDPs was elevated to the front burner of electoral discourse. This is because the insurgency in the north eastern part of the country had caused a large number of eligible voters to be displaced from their homes. Apart from the insurgency which was orchestrated by the Islamist militant group – Boko Haram – flooding, herdsmen menace, inter-communal clashes fuelled by ethnic and religious tensions, especially in the Middle Belt region. Elections have equally made people to be internally displaced. Therefore, as the elections drew closer, there were concerns that a good number of registered voters would be disenfranchised, owing to the fact that they have been displaced from their homes/wards where they registered. Ibeanu (2015, p.20) succinctly captured it thus:

...By mid-2014 the Boko Haram insurgency in the North East seemed to be rising at tremendous rate, displacing in its wake hundreds of Thousands of eligible voters. There were repeated questions put to Chairman Jega by stakeholders, particularly development partners, regarding INEC's plans for IDP voting. Professor Jega's position was consistently that INEC was committed to an inclusive electoral process and therefore would do everything it could to provide opportunities for every qualified Nigerian to vote. In essence, INEC was committed to IDP voting but the realities of organizing the complex processes it would entail will determine if it would be done in 2015 or later. The Governorship by-election in Adamawa State...brought the full magnitude of the IDP challenge in the electoral process to the attention of the Commission for the first time. This is because it was the first time a state wide election would take place in any of the three main insurgency States...The large numbers of IDPs in the holding camps and stories of many others spontaneously settled with families and friends convinced INEC of the need to urgently respond to the situation. Although the Adamawa by-election was later cancelled...the Chairman of INEC and his team were convinced that the Commission would have to respond to requests for IDP voting sooner than later.

Meanwhile, in Nigeria, the Internal Displacement Monitoring Center, IDMC (2016) estimated that there were almost 2,152,000 IDPs in the country as of December 31, 2015. This figure is based on an assessment conducted from November to December 2015 by the International Organization for Migration (IOM) Displacement Tracking Matrix (DTM) team in 207 Local Government Areas covering 13 States in northern Nigeria (Abuja, Adamawa, Bauchi, Benue, Borno, Gombe, Kaduna, Kano, Nasarawa, Plateau, Taraba, Yobe, and Zamfara). According to the same IDMC report, of the total figure of IDPs, 12.6% were displaced due to communal clashes, 2.4% by natural disasters, and 85% as a result of insurgency attacks by the Islamist Boko Haram.

The debate on whether the IDPs would vote in the 2015 general elections or if they had been disenfranchised as a result of having been displaced from where they registered to vote got the attention of the National Assembly, as the Senate, in particular, considered an amendment to the Electoral Act 2010 (as amended) to make provision for the IDPs to vote in their respective camps nationwide through a proposed insertion of Section 42 (2) into the Act. However, the Bill was later stalled at its second reading in December 2014 as the Senate was of the view that a resolution employing the Independent National Electoral Commission (INEC) to use all administrative mechanisms within the Electoral Act to ensure that IDPs of adult age exercise their franchise in time of general elections would be more effective (PLAC Newsletter, February 2015). Hence, on 16 December, 2014, Senate directed its Committee on INEC to liaise with INEC to establish special polling units for IDPs victims of insurgency in the north east (Cleen Foundation, 2014). Consequently, INEC raised a Task Force on how to get the IDPs to vote during the elections. The establishment of the Task Force was a fallout or outcome of a workshop and a technical brainstorming by the Chairman's office, as well as a one-day stakeholders' conference on IDP voting also organized by the Chairman's office. One important recommendation of the Task Force was that special centers should be set up for the IDPs in the north east to vote.

Thus, as arrangements were being put in place to ensure that the IDPs in the north-eastern part of the country were not disenfranchised, INEC announced that registered voters fleeing their present abode to their States of origin for fear of outbreak of violence during and after the general elections would not be allowed to vote in their home States (Nweje, 2015). This is the problem. By the definition of internally displaced persons, these categories of people qualify as IDPs, because they are persons or groups of persons that have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border ([www.internaldisplacement.org](http://www.internaldisplacement.org)). Why then was arrangement made for some IDPs to exercise their franchise and some were denied such rights? According to INEC, such people who registered and have obtained their Permanent Voters Cards (PVCs) in one part of the country but have fled to another

could only go back to where they were registered if they wished to vote. Those in question feared that there could be a repeat of the painful experience of the post-election violence of 2011. This fear was exacerbated by the threats being issued during the campaigns, which was characterized by political intolerance, campaign of calumny and hate.

### Research Method

This study adopted survey design as it was quantitatively inclined. Data were collected through the administration of questionnaire. The study was designed to investigate the impacts of internal displacement in the conduct of elections and by carrying out empirical inquiry into the 2015 Nigerian general elections, using the case of Durumi IDP Camp, Abuja. Considering the population of IDPs in Durumi IDP camp, four hundred (400) copies of the questionnaire were administered, while three hundred seven (307) were successfully retrieved amidst some limitations. Data collected were presented in a tabular form and quantitatively analysed using simple percentage statistical tool.

### Result of the Findings

The following are data collected in line with the research questions.

**Table 1 The impact of internal displacement on the 2015 general elections in Nigeria**

Response	Frequency	Percentage
High	83	27.0%
Very High	212	69.1%
Low	7	2.3%
Very Low	5	1.6%
<b>Total</b>	<b>307</b>	<b>100%</b>

**Source:** Field survey June, 2020

The nature or type of impact internal displacement has on general elections in Nigeria is important to be ascertained in this study. The frequency distribution table above shows that 83 respondents of the total respondents which 27.0% are of the view that the negative impact of internal displacement on general elections is “High”. The table further shows that 212 of total respondents constituting 69.1% which is the highest number affirm that the impact of internal displacement on general election is “very high”, while 7 respondents of 2.3% are of the view “low” impact, and 5 respondents of 1.6% hold that the impact is “very low”.

**Table 2 The extent of effect of Internal displacement on the voting right of IDPs**

Responses	Frequency	Percentage
High	78	25.4%
Very High	203	66.1%
Low	21	6.8%
Very Low	5	1.6%
<b>Total</b>	<b>307</b>	<b>100%</b>

*Source: Field survey June, 2020*

The above distribution table ascertains the views of respondents on the extent at which internal displacement affected the voting right of the IDPs in Nigeria. This table is very key to this study since it provides answers to one of the major questions of the paper and also showing the nexus between electoral violence and the conduct of general elections. The above distribution shows that 78 of the total respondents which constitute 25.4% are of the view that the level at which internal displacement affected IDPs is “high”. The table further indicates that 203 respondents which is the highest number of respondents constituting 66.1% of the entire sample of the population are of the opinion that the extent is “very high”. Meanwhile, 21 respondents of 6.8% maintained that the extent is “low” while 5 respondents of 1.6% hold that the extent is “very low”.

**Table 3. Sustenance of franchise of internal displaced persons**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Through Adequate Security	83	27.0%
Through Strong and Inclusive Legislation	212	69.1%
Creating Voting centres in all IDP Camps	7	2.3%
Immediate Reintegration	5	1.6%
<b>Total</b>	<b>307</b>	<b>100%</b>

*Source: Field survey June, 2020*

The study considers it important to through field survey ascertain how the franchise of IDPs can be sustained even in the light of increase internal displacement. The frequency distribution table above shows that 83 respondents of the total respondents which 27.0% are of the view that the franchise can be sustained through adequate security. The table further shows that 212 of total respondents constituting 69.1% which is the highest number affirm that the franchise can be sustained through strong and inclusive legislation, while 7 respondents of 2.3% are of the view creating voting centres in all IDP Camps, and 5 respondents of 1.6% hold that it is through immediate reintegration.

### **Discussion of Results**

The Simple Percentage Statistical tool used in presenting and analyzing data collected in this study shows that, Research Question One is very relevant; and Internal Displacement strongly impacted negatively on the 2015 general elections in Nigeria as it resulted to disfranchisement of majority of registered IDP voters as they were denied of voting. This is evident as majority of the respondents identified ‘very high’ which explains the injustice on registered IDP voters located in other camps outside north east. This reveals the level of inclusiveness in the country’s electoral process. This finding entirely negates the claims by the electoral management body as was seen in the literature reviewed above.

The findings also show that Research Question Two is relevant; and that to a great extent internal displacement affected the voting rights of IDPs in the 2015 general elections in Nigeria. It shows the need to design a framework to enable the internally displaced persons exercise their voting right, hence the issue of displacement has become phenomenon.

The study findings indicate that Research Question Three is valid; and majority of the respondents suggested that the franchise of internally displaced persons can be sustained through strong and inclusive legislation, this is important as the issue of displacement has become phenomenon which is in line with the argument of Itheme (2014) as reviewed in the literature.

## **Conclusion**

This study has examined internal displacement and the challenge of election conduct in Nigeria using the case of 2015 General Elections. The findings of the study have revealed significant relationship between Internal Displacement and the conduct of Elections. The study identified the negative impact of Internal Displacement on elections as it limited the inclusiveness of election, thereby putting the inclusiveness of election process in Nigeria into question. Also, to a great extent, internal displacement affected the voting rights of the IDPs and further identified ways through such challenge can be averted, and in turn improve and sustain the voting rights of the IDPs. The study has concluded that internal displacement leads to denial of franchise, especially in a democratic society where there is no existing inclusive legislation on the citizens under internal displacement.

## **Recommendations**

Based on the findings of the study. the following recommendations are made;

- i. There is need to enact strong legislation on participation of all registered IDPs across the country in general elections. This will prevent discrimination by Independent National Electoral Commission (INEC) to favour some sections of registered IDP voters that participate in elections.
- ii. The Independent National Electoral Commission (INEC) should through its administrative powers create and establish voting centers in all IDP camps across the country. This will enable the internally displaced persons who are registered voters to actively exercise their franchise conveniently. iii. Adequate security should be provided for the IDPs in camps across the country. This will ensure some level of confidence and encourage registered IDPs to exercise their franchise.
- iii. Effective political education should be carried out by all election stakeholders, including INEC, Political Parties, Politicians, Electoral Observer bodies, Civil Society Groups and Government. This will help to enlighten the IDPs politically, and also help them to effectively exercise their franchise.

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## Analysis of Crime Control and Foreign Direct Investment in Nigeria

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### Abstract

This study analyses the impact of crime control on the performance of Foreign Direct Investment (FDI) in Nigeria. To obtain the objective of appropriate policymaking, secondary data covering 1996 to 2017 was utilized. This study employed multiple econometrics regression techniques (MERT) using econometrics view for the analysis. Unit root test was carried out to overcome spurious results and most of the variables became stationary at first difference. The results revealed that defense vote does not exhibit correct signs based on a priori criteria and has no significant impact on the performance of FDI in Nigeria. Furthermore, the internal security vote and corruption index of Nigeria conform to the a priori criteria and both have positive and negative impact on FDI inflows to Nigeria respectively. Meanwhile, the  $R^2$  (0.71) and  $\bar{R}^2$  (0.66) indicate that the model fits the data quite well and in addition, the F-statistic which is the test statistics for overall results significant with (14.42) as compared with the tabulated value of 3.16 and  $\rho=0.0000$ . This is an indication that the model is well formulated. The results obtained from the individual variables provide adequate information for decision making that will influence the foreign direct investment in the country. Based on the findings, the following recommendations are made among others; the inverse signs of defense vote call for concern, that it should be increased, the annual budget should be executed early to avoid delay effect and corruption should be fought vigorously as it affects the efforts of fighting crime.

**Keywords:** Crime control, Corruption, Defense, Foreign Direct Investment, Internal Security and Nigeria.

### Introduction

It has been globally established that Foreign Direct Investment (FDI) is a necessary ingredient for sustainable economic growth and development of host economies. The cardinal role of FDI in emerging/developing economies including Nigeria can be underscored on the ground that these countries can hardly mobilize their domestic savings sufficiently enough to stimulate investment, employment, income and economic stability. The FDI serves to augment the deficit of domestic investable resources.

Overall benefits of FDI for developing countries are well documented given the appropriate host-countries' policies and basic level of development (OECD, 2002). In furtherance to this, the OECD (2002) reported that FDI triggers technology spillovers, assist human capital formation, contributes to international trade integration, helps create a more competitive business environment and enhances enterprises development. It is believed that some institutional and environmental factors tend to prevent some developing countries especially from realizing optimal benefits of FDI inflow in the domestic economy.

According to Ndem, Okoronkwo and Nwamuo (2014), the steady decrease in the share of FDI inflow in Nigeria can be attributed to high level corruption, poor governance, in adequate infrastructures amongst others. These constitute poor business environment and these myriads of socio-economic challenges have been made worse with the prevalence of varying degrees of crimes that seem to remain unabated in Nigeria. The wave of crimes in Nigeria have graduated from robbery, 419, yahoo boys/yahoo plus, internet fraudsters/cybercrimes, and others to kidnapping/hostage taking for the purpose of coercing the victims' employers, family or the government to raise huge amount of money to release the victims.

The wave of insecurity and its effect on the level of investment in Nigeria most especially the foreign direct investment has been recognised by studies (Jelilov, Ozden & Briggs, 2018). In their study relating to the impact of insecurity on investment in Nigeria, Jelilov, Ozden and Briggs documented that the wave of insecurity in Nigeria has discouraged not only local but foreign investment in the country. According to Ukoji and Okolie (2016), crime in Nigeria for the past few years has assumed a debilitating proportion. The development portrays the inability of government to provide security and safe environment for lives, properties and the conduct of economic activities (Osawe, 2015; Ukoji & Okolie, 2016).

Giving the fact that information technology has made the world a digital global village, no amount of papers at global fora that Nigerian political leaders would present to project Nigeria as safe haven for investment will likely yield positive results as foreigners are aware of the trend of insecurity ravaging the country. This can explain why foreign direct investment favours the oil enclave sector at the expense of other sectors such as education, health and agriculture and thus can only bring about few employments and hardly can overcome poverty trend in Nigeria. The FDI inflows to Nigeria has been dwindling and in the downward trend for a decade now.

## **Conceptual Clarifications**

### **Crime**

Crime is any act which constitutes an offence against the organization or society or nation and punishable by law. Some societies believe that same sex marriage is legal while some societies maintain otherwise. In Nigeria, killing of bush animals is seen as a means of

earning a living, and some hunters are praised for their bravery when they kill animals like buffalo, elephants, chimpanzee, whale or soon, but if the killings take place in some societies where such animals are held as endangered species, the act is seen as a crime. Nonetheless, there are common deviant behaviours which are termed as crimes across the globe such as homicide, financial crimes, corruption, bribery, thuggery, rape and other sexual violence, human trafficking, drug trafficking, robbery, kidnapping, terrorism, denial of human rights, cybercrime, self-kidnapping, arms proliferation. What constitutes crime does not have limited scope and that deviant acts metamorphosis from time to time. The obvious is that it violates the social norms of a given setting. According to the Scottish Centre for Crime and Justice Research (2015), crime is an action or omission which constitutes an offence punishable by law. It further conceives crime as an offence which goes beyond the personal and into public sphere, breaking prohibitory rules or laws, to which legitimate punishments or sanctions are attached and which requires the intervention of public authority. Crime is a public wrong as criminal offense has harmful effect on some individual or individuals as well as community, society or state (Ukoji & Okolie, 2016).

### **Crime Control**

This explains measures put in place to counter behaviours which have detrimental effects on individuals, organization, societies, nations and the global community. It also includes mechanism put in place to prevent crimes and stem the wave of criminality in a given society. Since crime constitutes insecurity, it therefore means that measures to have security constitute crime control measures. It embraces all efforts geared towards forestalling integrity and confidentiality of citizens, foreigners and committee of nations on a given nation by the manner which the security architecture can deter, delay, detect, deny or mitigate harmful attacks on people and installations or facilities within the boundaries of any given country. Crime control has to do with behaviours and approaches directed at reducing the threat of crimes and enhancing the sense of security and safety which is aimed at improving the quality of life, and as well as develop an environment where crimes cannot thrive (Adebayo, 2013). Crime control embraces the anticipation, recognition and appraisal of crime and initiation of some actions to remove it.

### **Foreign Direct Investment**

Foreign direct investment is an investment in a business by an investor from another country for which the foreign investor has control over the company. According to Susic, Trivanovic and Susic (2017), foreign direct investment represents such investment in which a foreign investor keeps the ownership right, provides control and the management of the firm he invested the funds, in order to achieve long term interest. This is why most foreign direct investments are owned by multinational companies with robust capital resources to sustain their assets outside the home countries. FDI represents the amount of investments made by foreign investors over a period of time (Sarbu & Gavrea, 2014).

## **Theoretical Evidence and Empirical Review**

The gains of foreign direct investment can be analysed in two directions; the side of host economies and the foreign investors. With this in mind, several factors account for motivation of foreign investment into the host countries amongst which has to do with business environment including safety concern particularly crime issue. The traditional determinants of FDI are becoming relatively less important such as natural resources and labour cost while the less traditional factors such as governance and economic freedom are becoming more popular (Perres, Ameer & Xu, 2018). Countries with high crime rates portray weak governance and the nature of violent crimes such as kidnapping and Boko haram insurgents deter economic freedom. This has negative effect on inflow of FDI to Nigerian economy as uncertainty about loss likely to be due to criminal activities constitute risk premium to investors. Firms may be reluctant to invest in expensive equipment and machinery for fear of losses due to theft and vandalism (Mahofa, Sundaram & Edwards, 2016).

In Ashby and Ramos (2013), organized crimes deter foreign direct investment in financial services, commerce and agriculture in Mexico. In addition, Kimou and Gyimah-Brempong (2012) revealed that crime has a negative effect on investment. Violent crimes affect the diversification of economic production factors because it can lead to outflow of human capital and as well reduction in production. Foreign direct investment is believed to be motivated to places with high human capital stock but on daily record, human capital suffers drain outside the country as the active populace feel insecure and unsafe.

Violent crime and perception of crime can affect a company's ability to attract customers, recruit and retain employees, boost workplace morale and ensure productivity of its employees in some cases to stay in business. Mahofa *et al* (2016) established that an increase in crime rates, in particular, the property crime rates reduces business entry, with one percent increase in total crimes leading to a reduction of business entry by 0.53 percent. There is no gainsaying that reduction in crime rates and the assurance of sustainable security will bring about growth in the inflow of foreign direct investment into Nigeria. The bane of FDI inflow to Nigeria can be attributed social instability, crime and corruption and thus resulted to the loss of confidence in Nigeria on general note and particularly to partner with Nigerians (Taiwo, Achugamonu, Okoye & Agu, 2017).

The wave of crimes in Nigeria have continued to rob the nation of the gains expected from the presence of FDI. Nigeria has abundant natural resources as well as robust market size which the FDI should ordinarily take as advantage and in turn beneficial to Nigeria but the issue of crime in varying dimensions in Nigeria tend to undermine Nigeria's promising gains.

Bayar and Gavriletea (2018) viewed that both FDI and portfolio inflows have become important sources of finance, especially for countries without sufficient capital but the frequency and severity of crimes associated with globalization process have caused

decrease in foreign capital inflows which may be detrimental to the development of the emerging economies.

There are a lot of benefits associated with FDI inflows such as environmental and social improvement, knowledge transfer, employment opportunities, new technologies and innovation (De Mello, 1997, Basu & Gauringlia, 2007; Kurtishi-Kastrati, 2013; Bayar & Gavriletea, 2018). These benefits will not be fully realized in Nigeria as crime problem has constituted security concern and unless it is abated, the foreign investors would prefer alternative destinations.

**Methodology**

**Data and Variables**

The data for the study was obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin and World Facts book on four variables - foreign direct investment to Nigeria, defense vote, internal security vote and corruption perception index of Nigeria between 1996 and 2017. Foreign direct investment is the dependent variable while the others are the explanatory variables.

**Model Specification**

The model of this study was specified in line with the empirical study of Jelilov *et al* (2018) where FDI was discovered to exert influence by crime incidence. Given this, the relationship between foreign direct investment (FDI) and other variables representing the incidence of crimes in the country for decision making were examined. The FDI is taken as the outcome variable and Defense vote, Internal Security Vote and Corruption Index. Therefore, in this study, the model captures variables that are expected to influence FDI in Nigeria which are specified thus:

$$FDI = f(DFV, ISV, CRI) \tag{1}$$

Where;

DFV = Defense vote

ISV = Internal Security Vote

CRI = Corruption Index

Mathematically, the relationship becomes:

$$FDI = DFV + ISV + CRI \tag{2}$$

The econometric form becomes

$$FDI_t = \alpha + \beta_1 DFV + \beta_2 ISV + \beta_3 CRI + \mu \tag{3}$$

With the result that best suit the model as established by the unit root test, the relationship becomes:

$$FDI_t = \alpha - \beta_1 DFV_{t-1} + \beta_2 ISV_{t-*} - \beta_3 CRI_{t-1} \tag{4}$$

After linearizing, better fit is achieved and the relationship becomes

$$\ln FDI_t = \alpha - \beta_1 \ln DFV_{t-1} + \beta_2 \ln ISV_{t-*} - \beta_3 \ln CRI_{t-1} \text{-----} \quad (5)$$

To overcome serial correlation, the final estimation was done without linearizing the value of corruption index (CRI), and the model assumes this form:

$$\ln FDI_t = \alpha - \beta_1 \ln DFV_{t-1} + \beta_2 \ln ISV_{t-*} - \beta_3 CRI_{t-1} + \mu \text{-----} \quad (6)$$

**A priori theoretical expectation**

$\beta_2 > 0$  while  $\beta_3$  and  $\beta_1 < 0$

$\mu$  is assumed to be normally distributed with zero mean and constant variance.

**Co-integration Test**

Stationary time series are said to be co-integrated if they move together through time, meaning that they are tied together through statistical test. The trace statistics and maximum Eigen value are used to compare with the critical value of 5 percent level of significance.

Table 1. Unrestricted Co-integration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.362589	16.46553	29.79707	0.6792
At most 1	0.310181	7.458709	15.49471	0.5250
At most 2	0.001609	0.032201	3.841466	0.8575

Trace test indicates no co-integration at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source : Authors' Computation using E-views version 7

Table 2. Unrestricted Co-integration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.362589	9.006823	21.13162	0.8319
At most 1	0.310181	7.426508	14.26460	0.4400
At most 2	0.001609	0.032201	3.841466	0.8575

Max-eigenvalue test indicates no cointegration at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

Table 3. Unrestricted Co-integrating Coefficients (normalized by b'S11\*b=I):

DFV	ISV	CRI
-0.020682	0.025582	0.020364
0.011734	-0.004399	0.025714
-0.008891	0.000135	0.002696

Tables 1, 2 and 3 displayed the results of co-integration tests. The results revealed that there is no co-integrating relationship among the variables. The trace statistics, maximum Eigen value and the normalised tests all provided evidences to support the null hypothesis that there is no long run relationship between the variables under investigation at 5 percent level of significant. This implies that findings of this study will be more valid for decisions and policy makings based on the individual variable relationships with the outcome variable (foreign direct investment) than forecasting the trend of FDI

**Unit Root Test**

The unit root test is recommended for time series data to avoid spurious result. The test is often conducted to establish whether the variables have a unit root or not within the period of study.

Table 4. Unit Root Test Results

Variable	Level	Prob.Value	First difference	Prob. Value	Order of Integration
FDI	-1.38625	0.5691	-4.23704*	0.0040	I(1)
DFV	-0.36995	0.8997	-5.13780*	0.0006	I(1)
ISV	-1.09523	0.9958	-1.29691***	0.6041	I(1)
CRI	-1.26340	0.6252	-3.85933*	0.0094	I(1)
Asymptotic Critical Values					
1%	-3.78880		-3.80855		
5%	-3.01236		-3.02069		
10%	-2.64611		-2.65041		

\* implies significant at 1% level, \*\* significant at 5% level and \*\*\* non significant

Source: Authors’ computation using E-Views Version7.

Table 2 showed the unit results. From the result, it was observed that among the explanatory variables; defense vote and corruption index are stationary at 1<sup>st</sup> difference I(1) while internal security vote is not stationary at any level of difference.

Table 5. Estimated multiple regression results

Dependent Variable: LOG(FDI)

Method: Least Squares

Date: 05/31/19 Time: 13:50

Sample: 1996 2017

Included observations: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	18.77881	1.390971	13.50051	0.0000
LOG(DFV)	-0.700080	0.498125	-1.405431	0.1769
LOG(ISV)	1.360596	0.476218	2.857085	0.0105
CRI	-0.019959	0.006153	-3.243583	0.0045

R-squared	0.706274	Mean dependent var	20.66664
Adjusted R-squared	0.657320	S.D. dependent var	1.975233
S.E. of regression	1.156279	Akaike info criterion	3.291258
Sum squared resid	24.06568	Schwarz criterion	3.489629
Log likelihood	-32.20383	Hannan-Quinn criter.	3.337988
F-statistic	14.42721	Durbin-Watson stat	2.389028
Prob(F-statistic)	0.000049		

Source: Authors' computations using E-views version 7.

## Discussion of Results

Table 5 depicted the estimated regression which demonstrated the impact of the explanatory variables on the outcome variable as presented in the model of the study. From the results, it was observed that the individual variable as showed by the t-ratios obtained using probability values compared with 5 percent level of significance ( $\alpha_{0.05}$ ) shows that the defence vote does not have a significant impact on FDI inflows in Nigeria. This was demonstrated as a unit change in DFV brought about 0.70 unit change which is corresponding to 70 percent decrease in foreign direct investment in the country while holding other variables constant. In other worlds, a unit change in the internal security vote led to about 1.36 unit change which corresponds to 136 percent increase in foreign direct investment while holding other variables constant.

This implies that within the period of study, internal security votes had impacted significantly on the FDI and conforms to a priori expectation of this study. The corruption index exhibit negatively impacted on FDI in Nigeria as demonstrated by the estimates which indicates that a unit change in CRI while holding other variables constant brought about decrease foreign direct investment inflow into Nigeria by 0.019 units which corresponds to about 1.9 percent decrease in the foreign direct investment in Nigeria. The result of the corruption index is consistent with the conclusions that countries with lower corruption index scores in host countries have positive association with FDI inflows (Cuervo-Cazurra, 2006, 2008; & Peres *et al*, 2018).

In overall, the variables combined explained about 71 percent variation in the foreign direct investment (FDI) as demonstrated by  $R^2$  (0.71) and after adjusting for other intervening variables the  $\bar{R}^2$  (0.66) suggest that the model has good fit. The overall fitness of the model was confirmed by the  $F_c$  (14.42) with  $\rho=0.0000$  indicating that the model is well formulated and it is significant in explaining FDI inflow in Nigeria.

## Conclusion

Nigeria needs to seriously motivate foreign direct investment into the domestic economy to stem the negative tides of unemployment and poverty. The prevalence of crimes especially Boko Haram, hostage taking, banditry have made Nigeria to be seen as unfriendly for investment especially foreign investment. There is need for sincerity of



purpose and commitment on the side of the leaders as well as all those saddled with security concern of Nigeria.

### **Recommendations**

From the results of the findings, it is believed that if the following policy recommendations are considered, foreign direct investment and even domestic investment will be encouraged so as to bring about economic stability and overall development of the nation:

- i. Defense vote should be used to procure the necessary gadgets to fight bandits and insurgents in the country. From findings, the administration of security vote in Nigeria seems not to impact seriously on the wave of crimes in Nigeria and hence needs to be reappraised.
- ii. Internal security vote though significant in explaining FDI in Nigeria has uncertain delayed effect which is not assured. It means that the quantum of security vote in Nigeria has to be increased.
- iii. Corruption negates efforts put in place to fight crimes in Nigeria. From findings, it shows that it negates FDI inflow in Nigeria. Corruption needs to be fought vigorously as it undermines all budget administration. This is because public resources are often diverted for individual gains and undermine the results that would have been achieved without corruption.
- iv. The detection and prevention require the use of forensic technology. When an individual plan to commit an offense and knows that he/she would be caught, they will not venture into such but if otherwise, the individual will carry it out with the thinking that he will not be caught.
- v. Annual budget should be implemented early enough to overcome delayed effect of policy direction.

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## Appendix A

Equation one. Log Transformation of Data Result( this improves the R-squared and , F-stat, and DW – stat)

Dependent Variable: LOG(FDI)  
 Method: Least Squares  
 Date: 05/31/19 Time: 13:36  
 Sample: 1996 2017  
 Included observations: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	23.92219	2.643642	9.048954	0.0000
LOG(DFV)	-0.612254	0.495959	-1.234484	0.2329
LOG(ISV)	1.107181	0.498594	2.220606	0.0395
LOG(CRI)	-1.445576	0.435131	-3.322159	0.0038
R-squared	0.711493	Mean dependent var		20.66664
Adjusted R-squared	0.663408	S.D. dependent var		1.975233
S.E. of regression	1.145961	Akaike info criterion		3.273330
Sum squared resid	23.63809	Schwarz criterion		3.471702
Log likelihood	-32.00663	Hannan-Quinn criter.		3.320061
F-statistic	14.79671	Durbin-Watson stat		2.542559
Prob(F-statistic)	0.000042			

Observation : log(DFV) not significant and DW still above 2 ie 2.5 still denoting presence of sderial correlation . though, not tool high enough. To further take care of this problem model two below left CRV without log  
 Model 2.

Dependent Variable: LOG(FDI)  
 Method: Least Squares  
 Date: 05/31/19 Time: 13:50  
 Sample: 1996 2017  
 Included observations: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	18.77881	1.390971	13.50051	0.0000
LOG(DFV)	-0.700080	0.498125	-1.405431	0.1769
LOG(ISV)	1.360596	0.476218	2.857085	0.0105
CRI	-0.019959	0.006153	-3.243583	0.0045
R-squared	0.706274	Mean dependent var		20.66664
Adjusted R-squared	0.657320	S.D. dependent var		1.975233
S.E. of regression	1.156279	Akaike info criterion		3.291258
Sum squared resid	24.06568	Schwarz criterion		3.489629
Log likelihood	-32.20383	Hannan-Quinn criter.		3.337988
F-statistic	14.42721	Durbin-Watson stat		2.389028

Prob(F-statistic) 0.000049  
 observation : no presence of serial correlation as DW= 2.4

### Appendix B

Result without data adjustment for stationarity (At Level)

Dependent Variable: FDI  
 Method: Least Squares  
 Date: 05/29/19 Time: 23:00  
 Sample: 1996 2017  
 Included observations: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.11E+09	1.73E+09	1.791207	0.0901
DFV	-21107379	10539830	-2.002630	0.0605
ISV	26990926	10551221	2.558086	0.0198
CRI	-24378139	14794691	-1.647763	0.1167
R-squared	0.559184	Mean dependent var		3.13E+09
Adjusted R-squared	0.485714	S.D. dependent var		3.27E+09
S.E. of regression	2.35E+09	Akaike info criterion		46.15492
Sum squared resid	9.93E+19	Schwarz criterion		46.35329
Log likelihood	-503.7041	Hannan-Quinn criter.		46.20165
F-statistic	7.611117	Durbin-Watson stat		0.944177
Prob(F-statistic)	0.001719			

#### Diagnostic tests

Pairwise Granger Causality Tests  
 Date: 05/29/19 Time: 23:39  
 Sample: 1996 2017  
 Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
DFV does not Granger Cause FDI	20	0.39809	0.6785
FDI does not Granger Cause DFV		3.10900	0.0742
ISV does not Granger Cause FDI	20	1.16683	0.3381
FDI does not Granger Cause ISV		1.67358	0.2208
CRI does not Granger Cause FDI	20	2.50152	0.1155
FDI does not Granger Cause CRI		4.06633	0.0388
ISV does not Granger Cause DFV	20	2.43936	0.1210
DFV does not Granger Cause ISV		0.31261	0.7362

CRI does not Granger Cause DFV	20	1.08871	0.3618
DFV does not Granger Cause CRI		0.92153	0.4193
CRI does not Granger Cause ISV	20	0.13462	0.8751
ISV does not Granger Cause CRI		1.81945	0.1961

**Co-integration test**

Date: 05/29/19 Time: 23:44  
 Sample (adjusted): 1998 2017  
 Included observations: 20 after adjustments  
 Trend assumption: Linear deterministic trend  
 Series: DFV ISV CRI  
 Lags interval (in first differences): 1 to 1  
 Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.362589	16.46553	29.79707	0.6792
At most 1	0.310181	7.458709	15.49471	0.5250
At most 2	0.001609	0.032201	3.841466	0.8575

Trace test indicates no cointegration at the 0.05 level  
 \* denotes rejection of the hypothesis at the 0.05 level  
 \*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

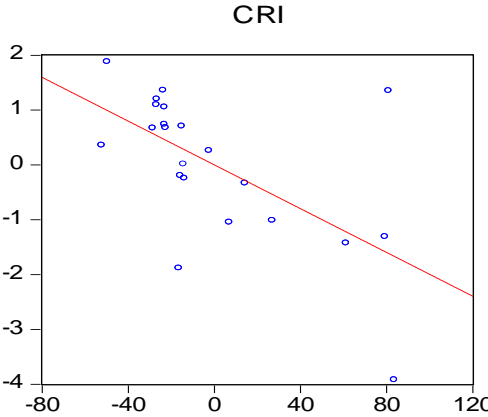
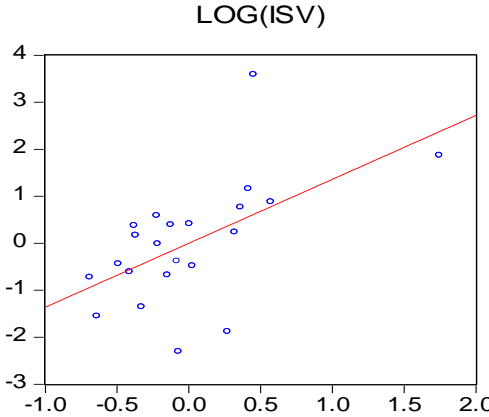
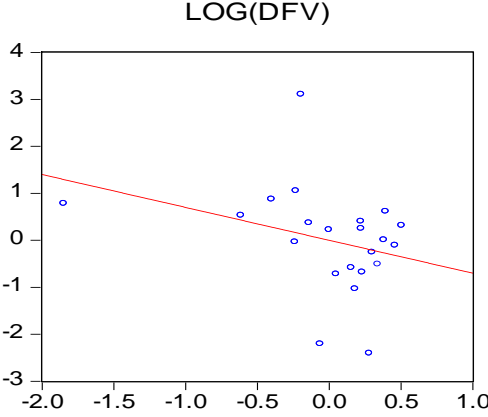
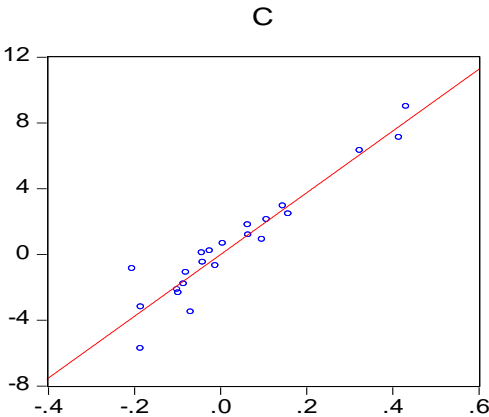
Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.362589	9.006823	21.13162	0.8319
At most 1	0.310181	7.426508	14.26460	0.4400
At most 2	0.001609	0.032201	3.841466	0.8575

Max-eigenvalue test indicates no cointegration at the 0.05 level  
 \* denotes rejection of the hypothesis at the 0.05 level  
 \*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b\*S11\*b=I):

DFV	ISV	CRI
-0.020682	0.025582	0.020364
0.011734	-0.004399	0.025714
-0.008891	0.000135	0.002696

LOG(FDI) vs Variables (Partialled on Regressors)



## **The Constitutional and Political Implications of Operating State Joint Local Government Account in a Federation: An Assessment of Nigeria's Experience in the Fourth Republic**

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### **Abstract**

The study assesses the constitutional and political implications of operating a State Joint Local Government Account in a federal system. The objective of the study is to unravel the intrigues and politics behind the continuous operation of State Joint Local Government account despite repeated calls for direct allocation to local government councils. The fiscal federalism model was adopted as a theoretical underpinning since the issue under consideration bothers on intergovernmental fiscal relations between the State and local governments in a federal arrangement. Methodologically, secondary method of data collection was adopted through content analysis of the 1999 constitution of the Federal Republic of Nigeria, 1976 and 1988 local government reforms guidelines, 2014 Constitutional Conference Report and appropriation bills signed into laws before arriving at a logical conclusion. Findings of the study revealed that the constitutional provision in section 162(6) of 1999 Constitution of the Federal Republic of Nigeria and the implementation of Ayida Panel Report of 1994 have made it difficult for direct allocation from the federation account to local council to be unrealistic. Hence, the study recommends the introduction of direct allocation to local government accounts, increase in the tax raising powers of local government, regular audit of local government accounts, regular payment of 10% internally generated revenue at the state level to local government and the amendment of section 162 (5&6) of the 1999 constitution which made provision for operation of Joint State Local Government Account.

**Keywords:** Local government, Joint Account, Fiscal Federalism, Intergovernmental Relations, constitution

### **Introduction**

The introduction of 1976 local government reforms by General Olusegun Obasanjo administration was a significant milestone in the history of local government administration in Nigeria. Unlike previous reforms measures, which were highly restricted in scope and range, the 1976 reforms recognized local government as the third tier of government operating within a common institutional framework with defined functions and responsibilities. As the third tier of government, local government gets statutory grants from federal and state governments, and is expected to serve as agent of development



especially in rural areas. However, the introduction of State/ Local Government Joint Account has been the bane of development at the grassroots level in Nigeria despite the laudable objectives of 1976 reforms. In view of this, revenue coming to local government from the Federation Account is paid into the State Joint Local Government Account at the state level. This was done purposely for the originating state to contribute 10% of its internally generated revenue to the account.

In the opinions of Ajeh (2009) and Sesan (2004), the idea of joint account is not entirely bad, but the manner of spending monies from such joint account exclusively by the governors is condemnable. Most states of the federation did not only refuse to contribute their share but the management of the account was opened to; abuse, mismanagement and misappropriation. Subsequently, the 1988 local government reforms guidelines introduced by General Ibrahim Babangida made provision for direct allocation to local government from the Federation Account and abolished the hitherto State Joint Local Government Account which gives room for the diversion of local government funds by state governors. Thereafter, the release of government white paper on the implementation of Ayida Panel Report in 1994 returned that practice of Joint State Local Government Account as against the direct allocation introduced by the Babangida Administration in 1988. This situation was maintained till the military handed over power to the democratically elected government of President Olusegun Obasanjo in 1999.

Unlike what existed during the Babangida era when the defunct 1989 Constitution was enacted as a Decree in a bid to guide the relations between the state and local governments, the 1999 Constitution has really made local governments to be agents of the state governments when it comes to the issue of finance. Whereas Section 160(4) of the 1989 Constitution states that “money standing to the credit of local governments shall be allocated directly to them”, the 1999 Constitution in Section 162(5) provides that “allocation of money whether appropriated by the National Assembly or the House of Assembly shall be made to the States for the benefit of their Local Governments.” The inability of local government to have access to adequate finance in the discharge of its constitutional responsibilities has resulted in absence of development at the grassroots level in Nigeria.

The failure of local governments in the area of service delivery has made the citizens to lose trust in government as an institution. Many Nigerians crave for change in the local government system as presently constituted in order not to only bring it in conformity with present day realities but also to make it live up to the expectations of the people who have been yearning for grassroots development. Armed with this background, this study examines the constitutional and political implications of operating State Joint Local Government Account in Nigeria in the fourth republic.

## **Objectives of the Study**

The major objective of this paper is to determine the constitutional and political implications of operating State Joint Local Government Account in Nigeria. However, the specific objectives are to:

- i. Access the factors behind the continuous operation of State Joint Local Government despite repeated calls for direct allocation to local government.
- ii. Determine the constitutional and political implications of operation State Joint Local Government Account in Nigeria.

## **Methodology**

This study adopted both documentary and analytical methods in examining existing facts and information on issues regarding the constitutional and political implications of operating State Joint Local Government Account in Nigeria. This approach examined official records, policy pronouncements and empirical literatures. In light of the above, extant provisions of the 1999 Constitution of the Federal Republic of Nigeria, the recommendations of Constitutional Conferences Reports and guidelines on 1976/1988 local government reforms and relevant studies were critically analysed before arriving at a conclusion.

## **Conceptual Clarifications**

### **Intergovernmental Relations**

The concept of “intergovernmental relations” has been conceived from various perspectives by scholars in the field of federalism due to the kind of environment they themselves and their intellectual orientations. According to Adamolekun (1983), intergovernmental relations refers to the interactions that take place among the different tiers of government within a state. Such relationships could be vertical, hierarchical, formal or informal in nature depending on the system of government in practice. Similarly, Bekink (2006) conceives intergovernmental relations as a set of multiple formal and informal principles, processes, structures and institutional arrangements for both the bilateral and multilateral interaction within and between the different spheres of government. This definition is more comprehensive since it goes further to clarify the kind of relations that can exist between the tiers of government.

### **Local Government**

Local Government on the other hand is a representative council established by law to exercise powers within its area of jurisdiction in order to ensure grassroots development. By implication, local government can only operate within its statutorily defined jurisdiction since two sovereignties cannot exist in a nation state. However, local government should also be given some measures of autonomy in order to achieve the objectives of engendering

grassroots development. Local government, according to Appadorai (1975) is a government of the popular elected bodies charged with administrative and executive duties in matters concerning the inhabitants of a particular district or place. This means that aspirant for local government council must be duly elected through a democratic process.

Similarly, the United Nations Office for Public Administration (1976, p.11) defines local government as “a political sub-division of a nation or (in a federal system) state, which is constituted by law and has substantial control of local affairs, including the powers to impose taxes or to exert labour for prescribed purposes.” The governing body of such an entity is elected or otherwise locally selected. The guidelines for the reform of local government in Nigeria define local government as:

Government at the local level exercised through representative council established by law to exercise specific powers within defined areas. These powers should give the council substantial control over local affairs, as well as the staff and institutional and financial powers to initiate and direct the provision of services and to determine and implement projects, so as to complement the activities of State and federal government in their areas, and to ensure, active participation of the people and their traditional institutions, that local initiatives and response to local needs are maximized (Local Government Reform, 1976, p.9).

A glance at the above definition will show that local government is synonymous with the concept of devolution. Devolution presupposes the exercise of political authority by primarily elected institutions within legally specified area, usually, “local units (which) are autonomous, independent and clearly perceived as separate levels of government over which central authorities exercise little or no direct control. It is a total transfer of authority from the central government to the local unit.

### **Theoretical Framework**

The study adopted the model of fiscal federalism as a theoretical underpinning since the issue under consideration bothers on intergovernmental fiscal relations between the state and local government in a federal arrangement. The basic foundations for the initial theory of Fiscal Federalism were laid by; Kenneth Arrow, Richard Musgrave and Paul Samuelson's two important papers on the theory of public goods in 1954 and 1955 provided the framework for what became accepted as the proper role of the state in the economy (Arowolo, 2011). Within this framework, three roles were identified for the government sector. These were the roles of government in correcting various forms of market failure, ensuring an equitable distribution of income and seeking to maintain stability in the macro-economy at full employment and stable prices (Musgrave, 1959). Thus, the government was expected to step in where the market mechanism failed due to various types of public goods characteristics. Governments and their officials were seen as the custodians of public

interest who would seek to maximize social welfare based on their benevolence or the need to ensure electoral success in democracies (Arowolo, 2011).

The above theory is applicable to this study since the major goal of creating local government is to ensure the provision of social amenities to the people at the grassroots level. The above objectives can only be achieved if local councils are allowed to operate as coordinate with the higher levels of government. In light of the above, the 1976 local government reforms guidelines recognized local government as the third tier of government with powers to exercise its functions within its own area of jurisdiction. Unfortunately, the same 1976 reforms made provision for the operation State Joint Local Government Account (SJLGA) where all revenue accruing to local government from the federation shall be paid. The above guideline was eventually enshrined in 1979 and 1999 constitutions of the Federal Republic of Nigeria. The combined effects of the above reforms and constitutional provisions made it difficult for the practice of true federalism in Nigeria. Instead of local government to coordinate to State government, it became a subordinate to the latter. The operation of SJLGA made it possible for State government to mismanage local government funds recklessly.

### **Factors Responsible for the Continuous Operation of State Joint Local Government Account**

All onslaughts against the continuous operation of State Joint Local Government Account in Nigeria appear to have hit the rock due to some salient factors which are yet to be addressed. For instance, the administration of President Ibrahim Babangida introduced direct allocation from federation account to local government through the introduction of 1988 local government reforms but all the perceived successes recorded during this period were filtered away through the release of government white paper on Ayida Panel report by Late General Sani Abacha in 1994 which later re-introduced the controversial State Joint Local Government Account. Subsequently, the successful handover of power from the military to a democratically elected government in 1999 brought high expectations on the possibilities of addressing all logjams to the effective running of local government administration in Nigeria.

After 21 years of democratic experiment, all efforts geared towards the introduction of direct allocation from the federation account to local government have not yielded any positive results. Several bills and executive orders introduced with the sole aim of ensuring the autonomy of local government failed to sail through. The process may appear smooth at the initial stage but the final outcomes of such bills leave much to be desired. After thorough review of empirical literatures, the following factors were found responsible for the inability to lay the issue of State Joint Local Government Account to rest permanently:

- i. **Constitutional Provision:** Section 162 (5) and (6) of the 1999 constitution of the Federal Republic of Nigeria as amended provided that “the amount standing to the

credit of local government councils in the Federal Account shall be allocated to the State for the benefit of their local government councils on such term and such manner as may be prescribed by the National Assembly. Each State shall maintain a special account to be called "State Joint Local Government Account" into which shall be paid all allocations to the local government councils of the State from the Federal Account and from the government of the State". The original intention of the above constitutional provision was for the State government to add 10% of its internally generated revenue with the amount standing at the credit of local government from the federation account and distribute same to each respective local government as may be prescribed by the State House of Assembly. On the contrary, the State government took advantage of the above constitutional provision to deny local government councils the revenue standing at their credit. By implication, direct allocation to local government councils is considered illegal until the above constitutional provision is amended. However, all attempts to amend section 162 (5) and (6) of the 1999 Constitution have been an exercise in futility due to the cumbersome process involved in such an exercise. For instance, it is difficult if not impossible to secure approval of 24 state Houses of Assembly before concluding the amendment process. Achieving success in such an exercise is difficult because the state governors who are in firm control of their respective Houses of Assembly would not allow the amendment process to sail through since its outcome would not be beneficial to them at the long run.

- ii. **Lack of Political Will:** Successive governments in Nigeria have lacked the political will to ensure direct allocation to local government both at the federal and state levels. This is so because the state government is satisfied with the current situation that gives room for the manipulation of local government funds with reckless abandonment. Any attempt to change the status quo would be resisted vehemently at the State level. Also, the President of the Federal Republic of Nigeria may refuse to assent to the bill seeking amendment to constitutional provision of section 162 (5) (6) in solidarity with the intension of state governments in order to keep on enjoying their support for his administration.
- iii. **Party Politics:** Most state governors are in the habit of ensuring that their political parties win virtually all political wards in their respective states during local government election in order to give room for the misuse of local government funds without any opposition. This is the more reason while state governors prefer the appointment of Caretaker Committees in place of conducting elections that may not be favourable to them in the long run. Sometimes, the sharing of local government funds by state governments is done in such a way that local councils belonging to opposition party are denied what legally belong to them due to partisan politics (Obidimma & Obidimma, 2016).

## **Constitutional and Political Implications of Operating State Joint Local Government Account in a Federation**

The origin of State/ local Government Joint Account can be traced to the introduction of 1976 reforms in order to make local governments have statutory allocation relationship with their respective state governments and improving the sorry financial condition of local councils. Subsequently, this provision of the 1976 local government reforms was eventually enshrined in 1979 Constitution of the Federal Republic of Nigeria. In the opinion of Omoruyi (1985), the major reason for the Joint Account System was to forestall possible manipulation of the local government finances by the various state governments. Contrary to expectations, the implementation of State Joint Local Government Account (SJLGA) rather empowered state governments to mismanage, divert and deduct local government revenue with reckless abandonment. Ojugbeli and James (2014) averred that contrary to the protection of Local Government allocation as was envisaged by the constitution, the various state governments have resorted to manipulations of the account according to their interests. The different types of illegal deductions, diversions and sometimes delay in the release of council's allocation from the Joint Account System attest adequately to this. The misuse and embezzlement of councils fund was made possible due to the fact that the Joint Account Allocation Committee (JAAC) places local government under the direct control of the states as the local governments have no real control over their resources.

The shortcomings noticed in the implementation of State Joint Local Government Account (SJLGA) led to its eventual abolition by the administration of General Ibrahim Babangida in 1988 Local Government Reforms Guidelines. The 1988 reforms guidelines were eventually enshrined in 1989 constitution of the Federal Republic of Nigeria. Specifically, section 160 of 1989 constitution provides that the share of Local Government be allocated directly to its account. Unfortunately, the abolished State Joint Local Government Account (SJLGA) was smuggled into 1999 constitution in order to perpetually encourage the manipulation and diversion of local government funds by each respective state government. Since then, all efforts geared towards ensuring direct allocation from the federation account to local government were to no avail. Specifically, the constitutional and political implications of operation State Joint Local Government in a federation during the Fourth Republic are discussed under the following headings:

### **i. Arbitrary and Unjustifiable Deduction of Local Government Funds**

The major intention for the introduction of State Joint Local Government Account (SJLGA) was for state government to collect revenue on behalf of local government from the federation account for the purpose of adding its 10% internally generated revenue and distribute same to each respective local government account as prescribed by the State House of Assembly. On the contrary, the state government engages in all manner of illegal deductions through instrumentality of Joint Account Allocation Committee (JAAC). Most

of these deductions are done under one form of cover or another in strong connivance with corrupt executives of some local governments. In situations where elected local government officers are found uncooperative in allowing such deductions, the state governments will find reasons to sack such officials and appoint caretaker committees comprising of members who are their cronies and who will assist them in making all the deductions they want (Obidimma & Obidimma, 2016).

Agu (2007) argues that local government is well funded, but unfortunately these resources do not get to them. In other words, the revenue accruing to local government both internally and externally is adequate for the effective discharge of its statutory functions but such funds hardly get to local councils as envisaged. Abiodun (2005) opines that the joint account across states of the federation showed various illegal and arbitrary deductions from the statutory funds. It was equally alleged that monies accruing to the local governments in the joint account were occasionally paid to contractors without verifying such debts and that new contracts were awarded centrally (at the state level) without recourse to the interest of the respective local councils.

In 2009, the Revenue Mobilization Allocation and Fiscal Commission (RMAFC) indicted the state governors of abandoning their statutory responsibilities in respect of the State/Local Governments' Joint Account (Aliyu, Afolabi & Akinwande, 2013). It is rather unfortunate that the level of development at the local government level does not justify the huge sums of money being allocated to local councils. For instance, the Community Watchdog (2015) reported that President Muhammadu Buhari questioned the Imo State Governor, Rochas Okorocha on the mismanagement of local government funds from 2011 to 2015 which statistics has estimated at N165 billion at average of N6 billion per local government council. As a matter of fact, local governments in Nigeria would have been a little heaven, if N165 is judiciously utilized for the provision of infrastructure and amenities within the period of 5 years.

## **ii. Lack of Prompt Release of Local Government Funds:**

The operation of State Joint Local Government Account (SJLGA) requires input of numerous stakeholders before taking decision on the sharing formula to each respective local councils. This made it difficult for revenue coming to local councils from the federation account to be distributed to them promptly. The delay in the release of funds to local council has adversely affected the effective implementation of approved budget as at when due. This unfortunate situation was not the intention of introducing Joint Account System in the first place. Apart from the inability to remit the revenue coming from the federation account to local council, the 10% internally generated revenue at the State level are not being paid to local government account promptly. In the opinion of Bello-Imam (1996. p50) "those that even managed to pay 10 percent of their internally generated revenue to their respective local governments units, most often, never paid as and when due". This practice is contrary to the provision of section 149 (6) of 1999 constitution which

mandated state governments to remit 10% of its internally generated revenue to local government account.

### **iii. Misappropriation of Councils Allocation**

The powers given to state governments in Section 7 (1) of the 1999 constitution of the Federal Republic of Nigeria to be responsible for determining the establishment, structure, functions and finance of local council created an opportunity for the misappropriation of local government revenue by them. According to Aghayere (1997. P.90) “state governments have compounded the financial problem of local governments by failing to pass on to local governments the federal allocation that has been passed through them as provided for by section 149(5) of the Nigerian constitution”. It is clear therefore, from the above submission that the problems of the state joint local government account system to local government administration in Nigeria are caused by the state governments. This actually is a total negation and contradiction of the intention of the policy formulators which have the objective of preventing possible manipulation of the account by state governors.

### **Conclusion**

This study has examined the constitutional and political implications of operating State Joint Local Government account in a Federation using the experience of Nigeria in the fourth Republic. The findings of the study revealed that all attempts by successive administrations to ensure direct allocation to local government from the federal account have been an exercise in futility due to inconsistency in constitutional provisions, lack of political will, partisan politics and tax raising powers of local government. The practice of State Joint Local Government Account (SJLGA) came into existence after the introduction of 1976 local government reforms. However, the implementation of Joint Account System was not fully in force until it was eventually enshrined in the 1999 constitution when the military handed over power to a democratically elected government of President Olusegun Obasanjo. The original plan for Joint Account System was to enable the state government to disburse both the revenues coming from the federation account and 10% internally generated revenue at the state level to the respective local governments as prescribed by State Houses of Assembly. On the contrary, State governments in most cases fail to remit the revenue coming from the federation account to local government regularly let alone dispatching the 10% internally generated revenue at the State level into the coffers of local councils. The inability of local government to have access to adequate revenue for discharging its constitutional roles has been the bane of development at the grassroots level in Nigeria.

### **Recommendations**

Based on the findings of the study, the following recommendations are made;



- i. There is urgent need for the amendment of section 162 (5 & 6) of the 1999 constitution  
of the Federal Republic of Nigeria which made provision for the operation of State Joint Local Government Account in order to ensure the introduction of direct allocation from the Federation account to local councils.
- ii. The internally generation capacity of local government should be enhanced through increase in the tax raising powers of local councils. By implication, all the areas within the jurisdiction of local councils to collect taxes being hijacked by state government should be restored.
- iii. There should be strict enforcement of the regular payment of 10% of State internally generation revenue to local councils. This can only be made possible through the amendment of section (7) (1) of the 1999 Constitution of the Federal Republic of Nigeria which handed over the determination of the establishment, structure, finance and administration of local government to the local government.
- iv. Relevant laws should be amended in order to ensure the inclusion of local government representatives in Joint Account Allocation Committee (JAAC). This will go a long way in ensuring that the interest of local government is taking care of when decisions on who get what, when and how? Are being taken.
- v. All forms of deductions from revenue accruing to local government through the instrumentality of JAAC will stop forthwith when the representative of local government council is included in the body.

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## **Global Risk Society and the Cosmopolitan Argument in Favour of Open Border**

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### **Abstract**

The world in which we live in today is an advanced world in every sense of the word. This advancement has come with an ultimate price which has made the modern society a global risk society. Ranging from climate change and its ecological effects, armed conflict and the culture of global displacement, international terrorists' networks, financial crisis, compounded by economic recessions and joblessness and more recently the covid-19 global pandemic. These concerns have caused many nations to review their migration policies and legislations in which migrants are criminalized, rejected admission into other states with no cogent reasons and a deliberate lowering of standards when it comes to asylum seekers. The study through discursive analysis examines from a sociological point of view the cosmopolitan argument in favour of open borders. The findings of the study suggested that global risks are problems that are not limited to one nation alone. The study therefore recommends that there is the need for global cooperation in confronting a common enemy because if we fail to come together to confront a common enemy (Risk society) we will all die a death of a thousand extinction.

**Keywords:** Cosmopolitan argument, Global risk society, Migration, Nation/State, Refugees

### **Introduction**

The world watched in horror in October 2013 when some 360 African migrants lost their lives within sight of land while attempting to reach the Italian island of Lampedusa. Untold hundreds have perished on the journey from Indonesia to Australia, or off the coast of Thailand. Migrants from Central America are raped, robbed, beaten and killed as they try to enter the USA from Mexico. African migrants' die of thirst in the vast desert reaches – their bones, the only testimony to their failed journey.” (IOM, 2013 p. 26)

Freedom of movement around the planet is a basic right of all human beings. The burden of proof falls on those who defend, suspending or restricting it. While the elimination of borders has long been encouraged by thinkers who have been dismissed as being utopian and of minor importance, the idea has recently been revived and advanced by respected promoters of neoliberal globalization who, equipped with an ultra-liberal or libertarian ideology, defend the free circulation not only of goods but also, consequently, of people in a world without barriers (Collier, 2013). Indeed, a wide-ranging, animated academic debate has arisen around the desirability and viability of a world with open borders (Velasco,

2016). The heart of the controversy lies not in the radical elimination of border policies, but rather in controlling borders for the passage of human beings, that is, in recognizing the free circulation of persons; though this has been the practice, the question remains to what extent and how fair and humane has it been to all peoples of all quarters?

We live at a time of unprecedented human mobility, with more people on the move than ever. For the poor and many migrants who are in dire need facing severe conditions, international borders are more often shut down on them with more stringent migration opportunities ebbing out of reach (Abizadeh, 2008). The dilemma here is that people this is happening at a time that the world seems to be liquified flowing to all parts (Urry, 2007). To speak about the right of persons to circulate freely in today's world is to take a walk through a minefield of paradoxes. To start with, it should be completely normal for the entire surface of the planet we inhabit to be accessible to anyone who is able to move around. After all, the whole planet is the common property of humanity (Maathai, 1996). A property that every generation receives as an undeserved inheritance. And if the Earth is a common good (and probably the most genuine one), the access to all its different parts must be universally guaranteed (Bartram, 2010). From the aforesaid, a way of conceiving one's relation with the territory can be inferred that obliges and constrains both visitors and hosts (Thiebaut, 2010). The possibility of deciding where to live is a fundamental aspect of human freedom (and in many cases it is also a condition of the possibility to enjoy other freedoms and opportunities). This assertion is completely evident when the person migrating is oneself. No one would deny this fundamental right to oneself. However, it does not always happen the same way when one tries to apply it to others. Then a thousand distinctions are made between theory and practice making it an abysmal endeavour. One has only to refer to the evidence seen in many nations and states to understand the complexity around this discourse. The free circulation of persons, as well as freedom of residence, as a basic human right, yet the specific way it is regulated suffers from a degree of asymmetry that borders on the absurd, a feature visible even in the most influential text about human rights. The Universal Declaration of Human Rights (UDHR); Its Article 13 proclaims that:

- i. Everyone has the right to freedom of movement and residence within the borders of every state.
- ii. Everyone has the right to leave any country, including his or her own, and to return freely to his or her country.”

Regarding freedom of circulation and residence, countries maintain that their regulation forms part of the *domain réservé* of their sovereignty. The Peace of Westphalia of 1648 is considered a great drive to this mentality which today is still considered a strong impetus to the building blocks of today's border control and immigration policies of most nations (Croxtton, 1999). This Westphalian treaty designed a state system on the twin-principle of

territoriality and sovereignty. Sovereignty accords the state unquestionable but legitimate control over the nation and polity, and it also gives the latitude to preserve and protect its territorial domain from both internal and external threats by any means at her disposal (Glanville, 2014). However, aside the fact that globalization and the internationalization of the globe have reduced the primacy of these dual principles, there have also been the problem of ideological and terrorist networks that have taken advantage of the instruments of globalization to emerge and threaten state sovereignty and its preservation. States today are caught in the web of legislating for freedom of movement and contending with national security from international terrorists' groups. Alongside these, is the growing reality of global migration which today has become a contemporary phenomenon of the world to the extent that the International Organization for Migration (2012) estimates that 405 million people will be leaving outside their native homes by 2050, this has made some scholars to label this age the 'age of migration' (Giddens & Philip, 2013).

### **Conceptual Clarification**

#### **The Global Risk Society**

The expansion and transformation of the society have been necessitated by different factors, which has led to the globalization of almost every sector of the human life and society. These events together with the fall of the Berlin Wall, a great transformation in the world of communication, telecommunication gadgets, global economy, transportation, the fall of communism and a new dawn in an economy that is neoliberal in nature made this New World Order to have a sail in almost every corner of the earth. With these events, the world has continued in a free fall into the realm of globalization whose influence is seen everywhere and in almost everything. This new phenomenon comes with a range of problems, risks and danger. According to Giddens (2013) in the modern society, social practices are constantly examined and reformed in the light of incoming information about those practices which ultimately alter their character in the end. Everything is open to reflection in the modern world including reflection itself which leaves us in a state of uncertainty and risk (Giddens & Pierson, 2013). It is on the premise of such a fragile and unstable society that Beck (2002) expresses the same concern in which he calls our world 'global, risk society. According Beck, three aspects of conflict exist in the world risk society today. These aspects include *ecological* conflicts, which are by their very essence are global. The second is *global financial* crises, which in the first stage, can be individualized and nationalized, 2008 economic meltdown is still very much a fresh lesson. The third aspect which suddenly greeted the limelight through the Al Qaeda attack on the American soil on September 11<sup>th</sup>. This attack became a show of the global threats of transnational terror networks. These threats are global and transnational and are not limited either to regional or national borders.

## **Cosmopolitan Argument**

Paul Crutzen in 2002 observed that we are now in the age of the Anthropocene an age in which human activities and initiatives have change and transform our ecosystem leading to loss of biodiversity (Lockie, 2015). Beck (2009) and Giddens (2013) agrees on this front that the modern society is a risk society, with the risks of global risk society. A global risk society that is perpetually experiencing different forms of new risks, dangers, security threats and uncertainties of living which cannot be controlled nationally or by a single state.

The cosmopolitan argument on the other hand is an approach from a moral and political philosophy. The word denotes a variety of different philosophical positions that encompass the moral, institutional, political and cultural spheres (Corvino, 2019). As the Greek 'kosmopolitês' ('citizen of the world') clearly suggests, the basic idea of any cosmopolitan view is that all human beings belong to a sort of worldly community that goes beyond geographical and political borders (Kleingeld & Brown, 2014).

Stoic philosophers were known for their views on cosmopolitanism based on their belief that human beings have a common capacity to reason and share a common spiritual element (Corvino, 2019). This was further amplified by Epicurean ethics that this capacity distinguishes human beings from other living species, represents the source of their moral value and makes them members of a global fraternal community. On the other hand, this invites all human beings into cosmopolitan commitment or brotherhood built on friendship. This was a common practice among the Epicureans who sought to create a community of friends that could protect its members from the experience of pain. Such a community was open to all human beings, regardless of their origins (Kleingeld *et al*, 2014).

Warf (2012) observed that the orthodox, liberal version of cosmopolitanism stands in sharp contrast to ideologies such as racism, religious fundamentalism, and nationalism, which emphasize and often exaggerate or oversimplify the differences among human beings at the expense of their common humanity. Liberal cosmopolitanism comprises an "imagined community" that extends everywhere. In this light, the moral community to which each person owes an obligation is worldwide, generating an obligation to "care at a distance," in which the concerns of distant strangers are held to be as important as those of people nearby (Warf, 2012).

## **Open Borders**

It is an established fact that no institution in the world has been able to achieve what various states and nations have been able to do for its citizens. A nation has been described as a large body of people united by common descent, history, culture, or language inhabiting a particular state or territory and no state can exist without a territory (Hassan, 2006). The peace treaty of Westphalia of 1648 was made with territory or state boundaries being one of the major ingredients on which every sovereign state had the reserved right to defend

and protect her territory and those living there (Brunn, 1998). To protect this right, the state must legislate on how people come into this territory. This could be a stringent or relaxed policy (Wellman, 2011). This is because the state remains the primary custodian and protector of human rights (Cohen, Kennedy & Perrier, 2013). The nation/state entity has been argued by many that there is no longer any need to keep or sustain this reality in the context of denying people access into the state. This is because the wave of globalization continues to undermine national territories creating a world with little or irrelevant boundaries as exemplified by the Schengen EU agreement (Parkes, 2019), where regional union or cooperation becomes a basis on which territories are demarcated and managed. There also exist situations where visa free countries have made their border policies such that foreigners can access these territories without going through the long strenuous and often criminalizing process of visa application.

According to Brunn (1998) The political world is more than a two-dimensional (length versus breadth of land territory) world, rather politics have become concerned about volume (defining and defending water, air, and planetary spaces). This is further compounded by the reality that globalization has created linkages, networks, and webs of communication and interactions among states that goes beyond national boundaries. We cannot be living in a house here while our cooking utensils or groceries are in the next compound with stringent rules that we cannot enter the next compound. A recognition of our interdependence is a recognition of the need to relax our border regulations. It must be noted that advancement in transportation, information and communication technologies, diplomatic relations, international trade and exchange is affecting all states on the world map, including how they view themselves and others in the world, how they address their own and others' problems and issues, and the form and frequencies of information exchanges (Brunn, 1998). The COVID-19 should be a reminder to us about this reality.

### **The State and Its Right to Border Control**

The prevalent notion of state sovereignty continues to hinge upon exclusive control of a specific territory and its borders, her legal authority also includes the regulation of foreign admission procedures. Consequently, the spontaneity of migratory flows remains conditioned by the constant, although rarely efficient, state endeavours that tend to plan them, orient them, and regulate them (Kristof, & Palme, 2006). Behind the persistence of territorial borders, one finds an implacable state machinery determined to mark the confines between those inside and those outside, to separate human beings into citizens and foreigners, an exclusive logic in addition to one that is profoundly inhospitable (Anderson, 1996). This is not a mere theoretical assertion but rather a verified daily practice. It must be noted that in principle, according to custom and international law, the act of migrating does not constitute a crime, especially in this age that has been tag the age of migration. As a result, if countries took this seriously, they should abstain from deploying any type of policy and legislation designed to criminalize immigration that is

not expressly authorized (Douglas, & Sáenz, 2013). However, they do just the opposite. This work therefore analytically examined the possibility of opening borders to migrants into other nations on the bases of the fact that we are all human beings sharing a common social orientation of a cosmopolitan humanity and a global economic system that supports us all. This will therefore be looked at as an impetus to open borders not only to economic goods and services as practiced today but much more to the global demand for human resources across nations. (Beck, 2005) This is more than ever predicated on the principle that we live in a world of global risk society where humanity everywhere in the world faces threats from armed conflicts, global terrorists networks, high level of unemployment and economic recession and finally climate change and its ecological effects especially to rural dwellers (Beck, 2009; Franklin, 1998; Gabe & Sandra, 2006).

It must be noted that given the three categories of migrants as outlined by Miller (2018) (a). A refugee is a person who faces threats to his or her human rights and possibly his or her life if he or she remains in the current state. (b). A particularity claimant on the other hand are migrants who assert that one state (usually a specific one) owes them admission based on what has happened to them or their nation in the past. (c). Of more importance to this work is the economic migrants, these are those who have an interest of moving from their home state into a new society either for education, job, or to pursue some personal interest. Since refugee status already have some legal rights and international duties binding on the receiving states; the Particularity migrant also have some legal backup to their claim. Most national policies on migrant tend to address more often economic migrants whose period of stay cannot be ascertain at the time of reception and whose case depend solely on the state (Miller, 2018).

### **Cosmopolitan Approach to Open Border**

It was Aristotle an Athenian Philosopher who once said man [sic] is a political animal (Omoregbe, 1998). He never meant that everybody should be a politician he rather meant that human beings by natural disposition and orientation cannot live alone or refuse to associate with others. The simple questions could be, can this power to associate with others be limited by the created artificial national borders of nation/states? Does this intrinsic nature of humanity to associate with others, be limited within political nation/state boundaries alone? Do the economic burden immigrants' places on the receiving community, society and state enough reason to limit this freedom? Can this propensity to move into other lands and meet other people be terminated by mere national and state's legislations on the basic principle of freedom of choice? Can national security be guaranteed by closing borders to neighbours who share the same community with us? These are some of the questions whose philosophical and legal answers might not be realistic enough to satisfy the true yearnings of the human heart.



Beck (2011) observed that there is a drastic change to the social phenomenon of the modern age in which its dominant feature includes interconnectedness, which means dependency and interdependency of people across the globe. If this is the present circumstances and situation of the present world and society how do, we build up a network of dependency and interconnectedness when there is barrier across borders of nations and states. In most cases, the customary practice is to close borders to immigrants and the exception is conditional opening. To protect this conduct and serve as a perfect alibi, we are presented with the widespread obsession about security, which raised to supreme importance above all other considerations and most times dominates space and public discourse. The following comment by a former speaker of the U.S. House of Representatives is a significant expression of that national security rhetoric: “No serious nation in the age of terror can afford to have wide-open borders with millions of illegal aliens crossing at will” (Gingrich, 2005). To close borders to people, however, does not necessarily mean that we should present migrants as potential terrorists. That is only a conveniently timed excuse, as the physical barriers were erected long before the control of movement of migrants was bolstered.

The argument and counter arguments on migration shall always be issues of side taking especially when considerations are made between the outsider and the insider. It will always be quite plausible and easy to accept when issues of migration revolve around stopping others from coming but it's never the case when it involves the rights to come in. In a world of global crisis of insecurity, food shortages, job scarcity and environmental and natural problems that have continued to tear down our common social systems and widen the possible chances of global conflict and war. The need for global cooperation becomes not only an option but an imperative for all if we must save ourselves from the impending doom. This should not be a task confined within boundaries or constitutional legislations of states and nations. Beck (2011) is of the view that in a world of global crises and danger produced by modern day civilization, the old double world of internal and external, us and them, national and international must lose their validity and create a society in which we all come together to confront our common enemy for the survival of all. According to Young (2011), our common humanity obliges a common social and moral expectation on us to minimize suffering as much as we can for everyone irrespective of race, nationality or ethnicity. If this is the common expectation of every human being based on our common humanity, based on our social and moral orientation that gives us a universal or cosmopolitan character, we cannot therefore limit it within nation state boundaries. We need to extend a hand of welcome beyond our national confinements.

We today live in a world who's social and political values are at the verge of extinction through consistent crisis of states individualism as the recent Brexit plan of Britain, (Van Reenen, 2016) the American intent to build the Mexican wall (Gitlin, 2017) the Arab spree that led to the European migrants crisis, the recent covid-19 global pandemic that have not

only exposed human biological vulnerability but has also affected every facet of the human society, leaving helpless and confused. This is further compounded by other concerns of global nuclear threats from nations like North Korea, Iran and a host of other nations still clandestinely developing weapons of mass destructions without listening to the international community (Pilat, 2008). If these states are allowed to develop their nuclear ambitions for the protection and security of their people and territories, they might one day use them on other nations thereby triggering probably a global nuclear war that could have a devastating effect on the entire earth. On the other hand, however, assuming that migrants are allowed to travel through international borders and reside in nations of their choices freely, this could discourage many states from attacking other states, since they are aware that citizens from other nations and even theirs might be in those states. Beck (2011) is of the opinion that global crises and risks contradict methodological nationalism. This is because global social crisis or risks are not confined within national borders nor can their causal responsibility and effects be analysed through and within a national lens alone. Their effects are felt across sovereign national boundaries and they can also become subject to systems of governance and forms of civil societies that are transnational in scope. These global risks that could lead to state alienation through mechanized contemporary warfare and technological industrialization with its social and environmental hazards are the product of collective decisions of capitalist superpowers. Their consequences on the other hand are systematically shifted and shared by communities and nations that do not share in their benefits (Beck, 2011). If this assertion is true, developed nations who are principal beneficiaries of these global risk decisions must by way of compensation and moral imperative open their borders to migrants or assist in establishing the economy of other striving states. These cosmopolitan shared responsibilities will help in reducing economic migration, making migration to become an act of tourism and sightseeing.

### **Cosmopolitan Cooperation on Security Front**

Many international communities have taken debates on global security as a collective responsibility and this has created wonderful security transnational bodies like the NATO, ECOMOG and many others across national borders of member states for security and safety. (Beck, 2005), This is a clear indicator that modern global challenges of insecurity cannot be left in the hands of individual states. States cooperation becomes necessary and inevitable if there is any chance and possibility of overcoming a common enemy. There is no better way to do this than to extend the confines of national borders with an intent of playing the role of a good neighbour to one another for the safety of all.

Debates against migration concentrate mostly on the burden migrants put on the receiving society, the need for a social and cultural homogeneity for a stable ground for democracy and good governance. The need for migrant's integration is said to be overrepresented in the social welfare system. This is said to be most true about low skilled migrants. High-skilled migrants, who have the skills and knowledge to generate exceptional value in

various markets, also have the chance to shop around the world and be ‘shopped for’ and are rarely seen as a problem. Those without special skills and knowledge are perceived in a mixed way, experiencing exclusion from many aspects of society (Castells, 2000). Only migrants that have something to offer, and thus the receiving society can gain from, are welcomed with enthusiasm. The reasoning is done from the point of view of the receiving society, only looking at what is best for their society and creating policies that maximize the optimum profit from migrants. In doing so, most foreign immigration policies and controls maintain a state of inequality between the haves and the have-nots (Isbister, 1996). Following Isbisters’ reasoning, the debate is about distributive justice as much as it is about the opening of borders. The concept of distributive justice is principally predicated on our cosmopolitan argument of our common humanity and oneness.

Following Carens’ (2003) line of reasoning on the need for open borders, political scientist Kukathas (2005) also rejects restrictions on migration. Closing borders are problematic for numerous reasons as is argued by Kukathas. Firstly, it can be a restriction to leave one’s own country and consequently escape failing and repressive regimes creating a risk for a person’s safety. Secondly, spatial relocation is often seen as the most logical method to escape poverty and denying people to settle elsewhere is denying them the chance to improve their economy and living conditions. Economically almost every sovereign state export one commodity or the other and these goods can traverse the international borders of almost every country with little or less control. How come that these goods are allowed access into other nations while the producers of the same goods are not allowed to access the nations the very goods they produced are consumed or used? Although Kukathas (2005) believes that the burden of proof to restrict migration lies with the accuser (i.e. the state), he keeps a realistic view and notes that “it should be admitted that the prospect of states opening their borders completely is a remote one”. The fact remains that the world has become a global village in which problems facing one section of the planet resonate in the other. The longer the shadow of global risk looms around us, the greater the incentives for the actors involved to cooperate and the greater the probability that the preferences of the actors, and ultimately of the state itself, will thereby undergo change. This is precisely the case in Europe. The European Union might become a model for climate change policies (Ghaleigh, 2013). For example, climate change as an aspect of Europeanization is not a discrete event and cannot be understood as a one-off act of cooperation that leaves the nation/states involved unaffected. To be effective, climate change policies must alter both the forms of state authority concerned and national sovereignty to their very core. Nation-states have become transnational states, which means that nation-states need to develop and practice reflexive self-limiting strategies in their own best interest. They refrain with good reason from exercising their remaining sovereignty: to maximize their national interests through Cosmopolitanism which is not the same thing as altruism or idealism but is realism built on the common social and humanitarian principles that we all have a

common problem and we must come together to solve; a responsibility across borders (Young, 2011). Actors are quite capable of learning and changing their preferences, especially under conditions of marked interdependence and intensive communication (Sandholtz & Sweet, 1998). This has far-reaching theoretical and practical implications because the preferences are no longer independent but dependent variables, related to experiences of global risks.

The tide of globalization has brought a drastic change to both the cultural and social communications of our world such that humanity tend to live and watch reality from a common stage making global mentality and perception more homogenized a very limited but valuable extent. According to Beck (2005) globalization' is a reflexive force rather than a linear process that takes the global and the local community together not as opposites but as combined and mutually implicit principles. These processes are historically dynamic (tied to their contexts) and multidimensional. Their application goes further than mere "interconnectedness", changing the relations between nation states and societies (Held, McGrew, Goldblatt & Perraton, 1999). One connectedness can no longer be limited to diplomatic ties alone it must go beyond paper corporations to a cosmopolitan cooperation in which national boundaries are mere symbols of our evolutionary development.

Freedom of movement is defensible since it can be a condition for other forms of freedom (Carens, 1992). Secondly, freedom of movement is a necessary condition for equal opportunity since different places bring about different restrictions and advantages. In a few words, scholars that defend the closed borders argument state that the principle of free association is consistent with liberal egalitarian values and therefore are justifiable within the liberal moral theory. Focusing too much on the freedom of movement may leave the poorest of the poor worst-off. Considering the principle of free movement is a tool towards equal opportunity, it can have some negative side-effects if this principle is fully lived out without some partial or deliberate restrictions. Bader (2005) stresses that the world poorest do not have the means to migrate even if they wanted to and were not restricted.

From a practical view, defenders of open borders claim free migration is an effective way to level global inequalities and reduce world poverty. The arguments in favour of open borders is also built on the ethical moral principles of our common social humanity and the economic principles that we are meant to harness to save our common humanity from the impending global risk our world faces today. There is also a huge counter argument in favour of close borders. It becomes clear that the focus lies too much on which values is outweighed by which. Both principles are defensible from a liberal-egalitarian approach and therefore this approach fails to move the debate forward. Governments may argue 'we have a right, the sovereignty and the approval of our voters to control and limit those trying to enter our national territory'. In contrast, migrants may argue 'we should have a right to come and go as we please on the bases that we share common social and economic process that empowers every economy and state of the world. If a country's raw materials or goods

are valued, recognized and admitted into a community for their good and wellbeing; it become a moral and economic imperative too that citizens from that state should also enjoy the same economic honour and admittance into that same society or community. Today various wildlife conservation organizations go round the world rescuing endangered species without considerations to their national heritage. If this can be done to animals how much more are, we obligated to do for our fellow humans who share our cosmopolitan world?

Opening all borders and the subsequent migration from poorer countries may leave the people left behind worse-off. This risk of human capital flight (or brain drain) does not do justice to the people from the sending countries. Whichever value or principle one holds dear, defends or prefers, it will not do justice to every individual concerned with international migration (Ypi, 2008). The discussion about open borders should therefore be understood as arguing about social differences and how to deal with them. There seems to be an intuitive tension between protecting what is seen as one's own and more cosmopolitan feelings about social justice. The debate is about moral considerations and obligations we have or should have towards other people and where the borders of those obligations are laid down. The discourse on open borders or close borders are both part of human freedom and human security, so we should be careful when we do not place one above the other. However, it must be noted that, scholars who focus too much on the freedom of association pay too little attention to the moral arbitrariness of both grounds and the imbalances this might have on today's world. Defenders claim that the freedom of association subscribes the notion that one has the freedom to leave one's association, in this case the state, but it doesn't entail the right to enter anywhere else; this asymmetry would not be problematic if a person had the option not to be a member of any association. This option is not realistic since not having a passport and not being subject of any state is an abnormality and leaves the person without any rights. It is important to note that the freedom of movement is a tool for the principle of equal economic opportunity and therefore should have a pivotal place in any migration policy. This does not mean that a state does not have a right to have some form of admission policy, but that does not say anything about the considerations that are made about who is allowed to enter and who is not.

### **The Way Forward**

The nation-state is, and will be for a long time, the primary institution for protecting order, facilitating commerce, protecting rights, and caring for the less fortunate of our world and society. As Walzer (1980) has noted elsewhere, one cannot simply proclaim a list of rights and then look around for armed men to enforce it. Careful attention must be paid on institutional structures and what is necessary to sustain them. Appropriately high value needs to be place on shaping other policies, specifically including immigration control policies, to foster, rather than undercut, the reassuring effectiveness of democratic

governance. But once this basic point is being accepted, there is still abundant work to do to contest the shape of those migration controls, to shrink or expand admissions, to experiment and modify. The arguments for moral legitimacy of controls are by no means a call for control at all costs; they frame a plea for properly valuing and strengthening the benefits of migration control while still serving other important public objectives. Trade-offs will remain important, but they must be trade-offs that do not consistently rank the need for adequate migration control at the bottom of the scale. An important moral guide in that process will be, as Walzer noted: “that states have a right to act in certain areas is not to say that anything they do in those areas is right”. One can argue about individual admission standards by appealing, for example, to the condition and character of the host country and to the shared understandings of those who are already members. Such arguments must be judged morally and politically and most importantly, factually.

### **Conclusion**

Global crisis and risk are vicious cycle whose reality seems eternal and there might never be a time humanity will have a region or sector of the earth that is immune from these risks. The earlier every state and nation realized this and answers the clarion call to unity not only for world peace but much more for economic and social support of our common shared humanity. From the findings of the study, global cooperation is an imperative demand that must be taken seriously if we must survive the impending doom that is looming on humanity from all sides. If we ignore this cosmopolitan corporation, we might be like a man caught in the 20<sup>th</sup> floor of a skyscraper and he looks through the window and sees fire in the 7<sup>th</sup> floor and thankfully says to his family ‘relax the fire will not get to us’. We all live in a global risk world and so it is either we come together open our national boundaries, harness our political, social, moral and economic resources to save our world or we stay apart and die a death of a thousand extinction.

### **Recommendations**

Based on the findings of the study, the following recommendations are made to achieve a mutual economic benefit to the migrants and citizens of any state and for the good of future policies.

- i. A constructive debate about labour migration or economic migrants as the case might be should be promoted among nations on the concerns and benefits of migration to national economies and societies. This is the only way to move beyond short-term interests and think about future proof arrangements.
- ii. More attention should be given to identifying shifts in educational levels and occupational growth. In this way migration policies can aim at responding on changes in the availability of national labour skills and look at international compensation.

- iii. Every nation should pay attention to improving the protection of economic migrants. This is best done by providing honest, reliable information about the job they are going to do and the conditions they will be working in. Additionally, it could be thought of to cooperate with the private sector to not only attract migrants, but also provide additional training, housing and language courses. This entails decentralizing and maybe even privatizing aspects of current migration policies. Although there are ideas and literature available about possible scenarios that may work and improve migration outcomes for all actors, little evidence is available. The most important recommendation therefore is to create experiments on a small scale when it comes to new migration policies. In this way an evident based opinion can be made about alternatives way of dealing with migration and the practical implementation of different approaches.

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## Street Begging in Ibadan Metropolis: Locations, Pattern and Distribution

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### Abstract

Ibadan Metropolis is becoming an emerging city not only in terms of socio-economic activities, but also accommodating numerous influxes of beggars into the city. Despite many studies on street begging, attentions have not been made in analyzing the locational pattern and spatial distribution of street beggars in Ibadan Metropolis. The objectives of the study are to identify and map locations of street beggars in Ibadan Metropolis. Global Positioning System (GIS) was used to obtain the geographic coordinates of the identified locations of street beggars which were digitized for mapping. Nearest neighbour analysis and simple linear regression were adopted for the data analysis. The findings of the study show that there are 2916 estimated street beggars at the identified locations. The study showed that the spatial distribution of beggars in Ibadan Metropolis is influenced by the prevailing land use, socio-economic activities and uncoordinated physical planning in controlling activities at the informal level. Furthermore, the nearest neighbour index ( $R_n = 0.828716$ ) exhibits a random that cluster pattern of distribution ( $R_n < 1$ ) of street beggars in Ibadan metropolis. The simple linear regression  $y = -0.0213x + 185.84$  shows that the regression coefficient of  $-0.2023$  with constant of  $185.84$  and ( $R^2$ ) of  $0.0804$  shows that distance account for 10% for the spatial distribution of street beggars along the central business district (CBD). The study thereby recommends among others the need to control influx of beggars in public places, pro-poor policy, and adherence to land use and physical planning measures for sustainable development of Ibadan metropolis.

**Keywords:** Informal Activities, Land use, Location, Street Beggars, and Urban Governance.

### Introduction

There is no consensus among scholars on the conceptualizations of street begging. Street begging has been defined differently. According to Adedidu (1989), street begging is as a result of poverty and impoverishment. This definition is not encompassing enough to cover other factors responsible for begging. According to Jelili (2006), not all street beggars are poor or motivated into begging by poverty, and not all the poor are beggars. There is need therefore, to re-conceptualize street begging to reflect different activities of begging and the reasons for street begging. Bukoye (2015) sees street begging as the act of requesting money, food, or other forms of favor without an exchange in a public place and in the street where people frequently pass by.

Fatai (2017) defines street begging as any systematic effort and deliberate attempt by beggars to solicit alms in public places. The public places could be mosques, churches,

markets, banking facilities, motor parks, transport corridors, itinerant chain stores, railway, and filling stations. He views street begging as any systematic effort and deliberate attempt in the sense that those who engage in begging are well-organized using different tactics and strategies for attracting sympathy from the general public. On the other hand, other street beggars are being constrained to beg based on some circumstances beyond their control. In the same vein, the author views beggars as any person who may be physically challenged (visually impaired, hearing impaired (deaf and dumb), mentally challenged, aged, child, widowed, and destitute with tendency to solicit for alms for meeting some certain obligations which could be for food, money, medical cares, transport, clothing, shelter, and other material objects that can promote their welfare and sustenance (Fatai, 2017).

Ibadan Metropolis is a rapidly growing city not only in terms of socio-economic activities, urban expansion, increased human population, and intellectual capital of the nation but also accommodating numerous influxes of beggars into the city. The number of street beggars in metropolitan areas of Ibadan in the recent time has increased exponentially with different categories of street beggars such as mentally-ill, child beggars, aged beggars, physically challenged (physically-impaired and visually-impaired (Ba'biyala), hearing-impaired (deaf and dumb). Others categories of beggars are traditional beggars such as Osun-Osogbo white garment beggars, twins-mothers who beg for alms with the belief that people will have pity on their twins children, as well as good looking and well-dressed individuals who are unemployed, lazy, greed that resort to begging (corporate beggars). They are found in major central business districts, commercial and religious centers, road intercessions, banking facilities, filling stations, restaurants, railway lines, bus stops, transport corridors, road intercessions, and other part of the metropolitan areas of Ibadan begging for alms (Fatai, 2017). Street begging in Ibadan Metropolis is increasing at an alarming and uncontrollable rate. This calls for the need to put measures in place to address the menace of street begging in Ibadan metropolis.

Sustainable measures and holistic approaches have not been put in place in addressing the menace of street begging in Ibadan Metropolis. Oyo State Government relocated beggars from road intercessions, bus-stops, central business districts, and other public places to nearby settlements of Sabo-Jembewon where beggars trade-in begging and engage in other part-time economic activities (Fatai, 2017). Despite this effort, the problem still persists. Owing to the uncontrolled increased in the number of street beggars in Ibadan Metropolis, the evolving trend of the urban changes in the city include increase in beggars' population in Ibadan metropolis. The urban change in the city is taking another dimension whereby beggars are spatially distributed across strategic locations in the public places soliciting for alms. Ibadan is becoming the preferred location of beggars in south west Nigeria.

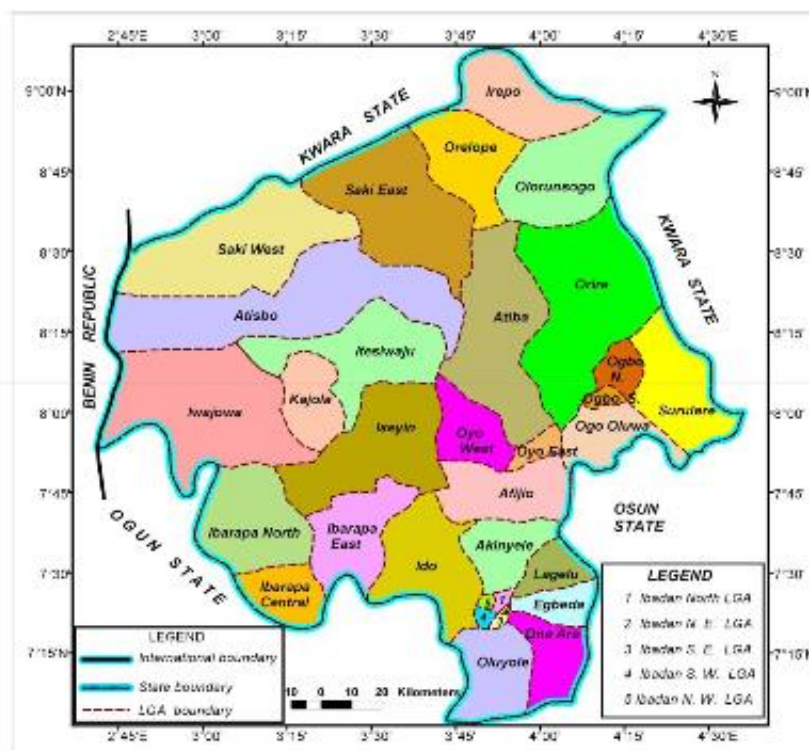
Numerous studies have revealed that street begging is a social problem as a result of poverty, destitution, unemployment (Jelili, 2006; Osah-Edo & Ayano, 2012). Other studies

found out that various land use and socio-economic conditions significantly influence the distribution of beggars in Nigerian cities (Oladepo, 2006; Ogunkan & Fawole, 2009) and inadequate urban governance and land use zoning in controlling the spread of beggars in public places (Fatai, Rasheed, Abdulrahman & Kunnu, 2020). However, there are limited scholarly efforts and empirical attempts from the field of geography in understanding and analyzing the locations, pattern, and distribution of beggars in Nigerian cities. Beggars are rational in nature and inherently incorporate spatial thinking in their choice of locations. They have knowledge of local geography when it comes to the choice of locations to solicit for alms. They are found in some strategic geographic locations which serve as a sphere of influence and attractive zones for beggars to solicit for alms.

The choices of locations, pattern, and distribution of beggars have not been given much attention by previous scholars of urban studies. Moreover, according to Jelili and Ogunkan (2010) and Afon and Taiwo (2016), the interplay of the prevailing land use, socio-economic and environmental conditions and characteristics of beggars influence the spatial distribution of beggars in public places in Nigerian cities that have not been properly documented in the literature. This is a knowledge gap that this study seeks to fill. The present study seeks to identify varied locations that street beggars are found in public places, determine the number of street beggars at the identified locations, spatial pattern and distribution in Ibadan Metropolis. This will help to have comprehensive background knowledge on the spatial pattern and distribution of street beggars in Ibadan Metropolis to improve the understanding by policymakers, thereby promoting planning development, urban governance, and sustainable metropolitan management in addressing the menace of street begging in Ibadan Metropolis.

### **Description of Study Area**

Ibadan Metropolis is located between longitude 3° 53'E to 4° 36'E of the Greenwich Meridian and latitude 7° 23'N to 7° 55'N of the equator (Fig. 1). It is located approximately 145 km north of Lagos and 530 km southwest of Abuja, the Federal Capital Territory. It also lies about 120 km east of the border with the Republic of Benin. The city currently covers an area of over 500km<sup>2</sup>. Ibadan Metropolis comprises 11 local government areas (LGAs) but the study focused on Ibadan North, Ibadan North East, Ibadan North-West, Ibadan South-East, Ibadan South West Local Government Areas which are urban Ibadan.



Source: www.google.com

Figure 1: The Location of the Study Area.

Falola (1984) posits that the geographic location of Ibadan at the fringe of the forest promoted its emergence as a marketing center for traders and goods from both the forest and grassland. Mabogunje (1968) traced the historical trajectory of Ibadan to the development of the railway to the North in 1901 and all road traffic from Lagos to the North converged in Ibadan. The city became a major point of bulk trade. Its central location and accessibility from the capital city of Lagos were the major considerations in the choice of Ibadan as the headquarters of the Western Provinces in 1939, which became the Western region of Nigeria in 1952. This change involved a substantial transfer of political power from the British Colonial Office to the nationals of the country and the process of ministerial appointments and the rapid expansion in the number of government workers and buildings in the city (Mabogunje, 1968).

Another factor that enhanced the growth and development of Ibadan could be associated with the establishment of University College in 1948 which later became the University of Ibadan. The creation of a well-equipped teaching hospital which was the only one in the country then. This led to the concentration of professionals and other skilled manpower increased purchasing power in the city, stimulated rapid growth in commerce and

employment that enhanced the influx of many people into the city. There were only 47 industrial establishments employing over 10 people and 2,000 small-scale industries employing fewer than 10 people in 1963 (Mabogunje, 1968).

Over the years Ibadan has expanded in terms of the human population, and areal extent/physical size without commensurate development of infrastructure, physical planning, land use zoning, and other measures of urban governance. The development of unplanned urbanization along the major roads of the city from the 1970s to the 1990s has finally given birth to urban decayed and informal settlements in the north, the east, and the south of the city. According to Abumere (1985), 30 percent of the derelict houses in Ibadan are found in the outskirts of the city at more than five km from the center. Most of them have been developed because a new labour market gave opportunities for employment: this is particularly the case for Agbowo, close to the university and inhabited by different categories of people such as students and junior staff of the university, low-income earners (Fourchard, 2003) and other categories of the urban poor such as beggars.

Fourchard further argues that it is also the case of Ojoo, a mixed Hausa-Yoruba settlement founded in the mid-1970s around the main transit market on the Lagos-Kano Road and Sasa close to the International Institute of Tropical Agriculture (IITA), another Hausa-Yoruba settlement. Ojoo and Sasa have become emerging communities at the fringes for different categories of people such as small scale business owners, poor urban dwellers, indigenous settlers, and Hausa that comprise of beggars and non-beggars. The beginning of the 20th century witnessed urban decayed and development of slums in Ibadan. Mokola, for instance, was renewed in 1995 (World Bank Project, 1995). This is also the case of Sabo, the first Hausa ward created in 1911 by the Colonial Authority to settle the Hausa trader community at the margins of the inner city (Cohen, 1973).

The development of makeshift structures in Sabo since the 1980s corresponds to the general increase of poverty in the country and the willingness of the Sabo Sarkin Hausa (head of the Hausa community in Sabo) to welcome poor Hausa people to the area (Fourchard, 2003). The community and housing in Sabo located along modern central business districts (CBDs) created an enabling environment for beggars especially from northern Nigeria to take residence in the Sabo community to move around city centers to solicit for alms. This also attests to the fact that the major locations in Ibadan where there are increased numbers of beggars are around Sabo, Oja-ba, and Ojoo axis. These are the major locations that serve as attractive zones and hotspots to beggars.

The development of many traditional markets along with road intercessions, transport corridors, bus stops, and other public places causes traffic congestion and increases the overcrowded situation of the city. This creates a fertile ground for beggars to go to markets, transport corridors, road intercessions, and commercial bus-stops to meet commuters and the general public to solicit for alms. The uncontrolled commercial slum at the inner city encourages different illegal and informal activities such as squatting, illegal conversion of

residential and other buildings to commercial uses, street trading, and begging. Fourchard (2003) argues that the poor housing conditions, the prices of rooms to rent are the cheapest in the town which attracted poor urban dwellers and informal workers. This enhanced beggars to take residence in the areas. Ibadan city provided settlements for different categories of beggars that are natives of Ibadan, neighbouring towns in South West Nigeria, transnational beggars from Northern Nigeria, and neighbouring African countries (Ojedokun, 2015). Beggars are found across traditional markets such as Beere, Ojee, Ojaba, Foko, Oke-Ado, Molete, Gege, Ojoo, bodija, Gbagi among others to solicit for alms and take residence in the city because of cheap accommodation with no provision of sanitary facilities, drainage, and other housing facilities.

The outcomes of the absence of adequate planning in the city are increasing poverty and the proliferation of slum and informal settlements (UN-HABITAT, 2009). This creates a breeding ground for slum that provide habitat for different categories of urban poor, street hawkers, small and medium scale traders, artisans, and street beggars. The ripple effects of inadequate measures of urban governance in terms of land use zoning, urban poverty, inadequate infrastructural facilities, poor housing service delivery, uncoordinated activities at the city-center and proliferation of informal activities such as street hawking in major public places serve as attracting zones for beggars (Fatai *et al*, 2020). It creates a breeding ground for begging and has attracted different categories of beggars to take residence in Ibadan Metropolis.

The inability to provide a city plan by successive city governments has resulted in the absence of a standard zoning arrangement (Egunjobi, 1999). The problem of land use zoning and proper adherence has featured the growth of unregulated socio-economic and cultural activities that encouraged the spatial spread of beggars in public places in Ibadan. Owing to the aforementioned historical trajectory, socio-economic deprivations, inadequate urban governance, poverty, compliance to land use zoning and uncoordinated activities at the city centers, uncontrolled urban expansion and informal settlement. Ibadan has continuously witnessed an influx of people which has contributed to its rapid growth both in population and physical expansion. The migratory streams of different categories of people into the city and influx of numerous people from northern Nigeria and transnational beggars from neighbouring countries of Mali, Chad Republic, Benin Republic, Cameroun not to contribute to the socio-economic development of Ibadan, but to engage in street begging (Ojedokun, 2015). On the other hand, various economic opportunities surfaced for different urban dwellers including beggars who occupy different sections of the city thought to be of precious advantage to them (Afon & Taiwo, 2016).



## **Materials and Methods**

### **Reconnaissance Survey**

The reconnaissance survey of the study area was carried out to obtain information on the locations where street beggars were found in the study area. Global Positioning System (GPS) was used to obtain the geographic coordinates of locations of street beggars in the study area. The result was entered into Microsoft excel as database for input into ArcGIS 10.3. The boundary of the study area was also digitized from a georeferenced map. The coordinate system of the street beggars as well as the vector boundary shape files of the study area were projected to UTM Zone 31 N (projected coordinate) for an accurate result of the analysis.

### **Beggars Estimates**

The populations of the street beggars were estimated at the identified locations street beggars were found in the study area in the year 2019. The population estimates of beggars were gotten from beggars or from their representatives at their identified locations. This was made possible because each beggar has separate begging zone, know the actual numbers of beggars in each begging zone. They also regulate entry of new members into the begging zones; they don't allow new beggars to come into beggars' zones to avoid stealing from general public and among beggars. The beggars' estimates help to determine the spatial distribution of street beggars in the study area. There are 2916 beggars estimated across 41 locations in the study area in the year 2019. Secondary data were also used. These were information from journals, reports, newspapers, internet and seminars, and scholarly articles.

### **Formulation of Hypotheses**

- i. The spatial pattern of street begging is not random in Ibadan metropolis
- ii. The number of street beggars decreases with increasing distance from the central business district.

### **Data Analysis**

Nearest Neighbor Analysis (NNA) of beggars in Ibadan Metropolis was carried using Arc GIS 10.4 software. The result was entered in Microsoft excel as a database for input into ArcGIS 10.3. The boundary of the study area was also digitized from a georeferenced map. The coordinate system of the beggars as well as the vector boundary shape files of the study area were projected to UTM Zone 31 N (projected coordinate) for an accurate result of the analysis. Average Nearest Neighbour analysis in spatial analysis extension of ArcGIS 10.4.1 was used to analyze the data. NNA was used to test for the hypothesis which says that the spatial pattern of street begging is not random in Ibadan metropolis. The formula is stated as follows:

$$R_n = D_o/D_e$$

Where  $R_n$  = Nearness Neighbour Index

$D_o$  = Observed mean distance

$D_e$  = Expected mean

The general rule for applying the method is based on the fact that Nearest Neighbour statistic ( $R_n$ ) has a value that ranges between zero (0) and 2.15. Thus  $0 < R_n < 2.15$ .

Table 1. Nearest Neighbour Analysis Value

R-value	Cluster Pattern Tendency
$R_n=1$	Implies that the distribution is random
$R_n=0$	Implies that the distribution is clustered
$R_n=2.15$	Implies that the distribution is regular

Z score will be used to test for significance at 0.05 level of significance. The mathematical formula is given as:

$$D_e = \frac{0.26136}{\sqrt{np}}$$

Where n = the number of measurement of the distance between pairs of point.

For the second hypothesis, simple linear regression model was adopted for the testing of the formulated hypothesis which states that the number of street beggars decreases with increasing distance from the central business district. The model is stated below.

$$Y = a + b_i X_i + e$$

Where Y=Number of street beggars at the locations within 1km buffer along the central business district (Mokola-Dugbe)

$X_1$ = Number of street beggars at locations outside 1km buffer along the central business district (Mokola-Dugbe).

A = intercept

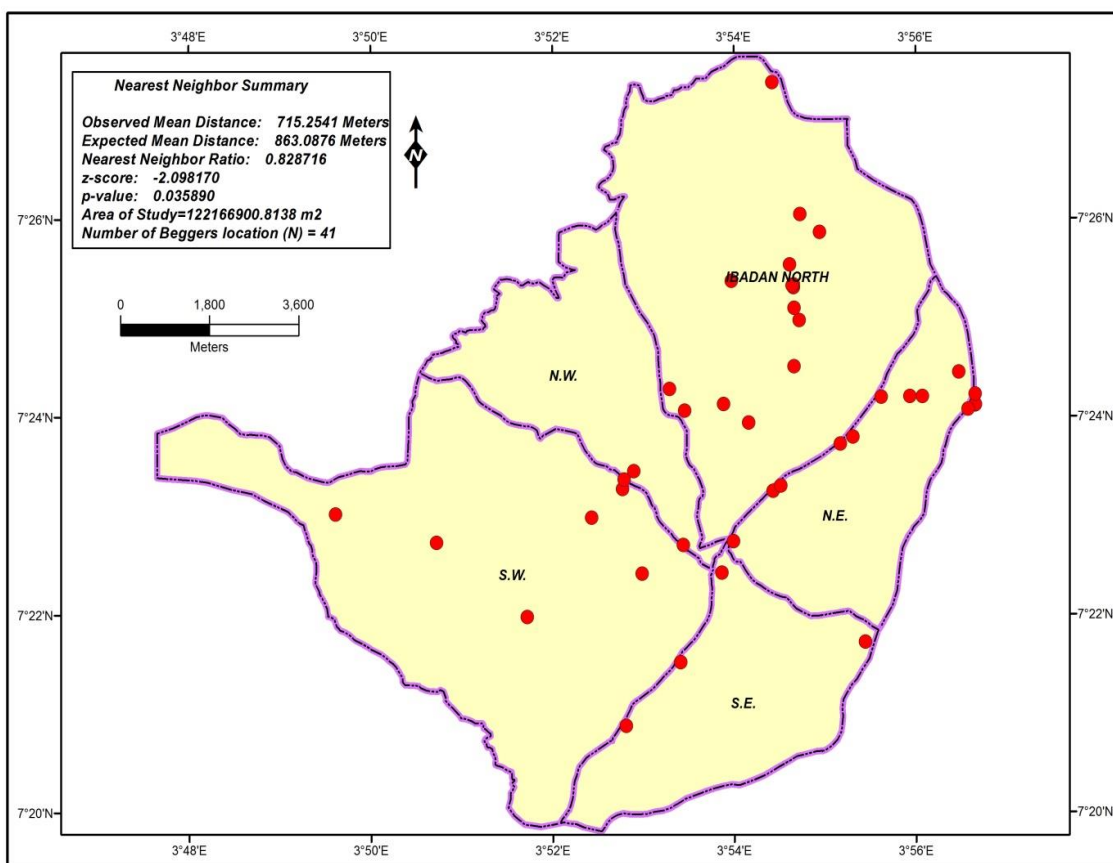
b = regression coefficient

e = stochastic error

The Simple Regression Analysis of the Statistical Package for Social Sciences (SPSS) was used. The coefficient of the determination ( $R^2$ ) of the independent variable measured their joint contribution to the explanation of the dependent variable. The independent variable is the number of street beggars at locations outside 1km buffer along the central business district (Mokola-Dugbe), while the dependent variable is the number of street beggars at the locations within 1km buffer along the central business district (Mokola-Dugbe). The data on the spatial pattern and distribution of street beggars was presented through chloropleth map and scatter diagram.

### Result of the Findings: Locations, Pattern and Distribution of Street Beggars

The result of the distribution of street beggars in Ibadan Metropolis is presented in Fig. 2. The result of the findings of the study shows the z-score of -2.098170, there is less than 1% likelihood that this clustered pattern could be the result of random chance. The result of the analysis shows that  $R_n$  0.828716 which exhibits a cluster pattern of distribution ( $R_n < 1$ ) while the Z Score -2.098170. The Z Score was used to test whether the result of clustering occur by chance at 0.05 significance level. This was found to be significant. In nearest Neighbour analysis (NNA), a negative Z-score indicates clustering, while a positive Z-score indicates dispersion or evenness. This result also shows that the  $R_n$  value of 0.502467 tends more towards randomness than cluster. Hence, the spatial pattern of street beggars in Ibadan Metropolis is random than clustered.



Source-Author's Field Survey, 2019.

Fig.2. Locations of Street Beggars in Ibadan Metropolis

### Pattern and Distribution of Street Beggars in Ibadan Metropolis

The estimated number of street beggars in Jenbewon street were 723 and were the most populated. Sabo-Jenbewon is a typical Hausa-Yoruba community that provides settlements for the inhabitants which are majorly Hausa in the city. It is located along the central business district (Mokola-Dugbe) in Ibadan Metropolis. It is characterized by road intercessions, over-bridges, commercial and residential land uses that featured filling stations, plazas, multiple chain stores, banks, office outlets, warehouses, administrative and

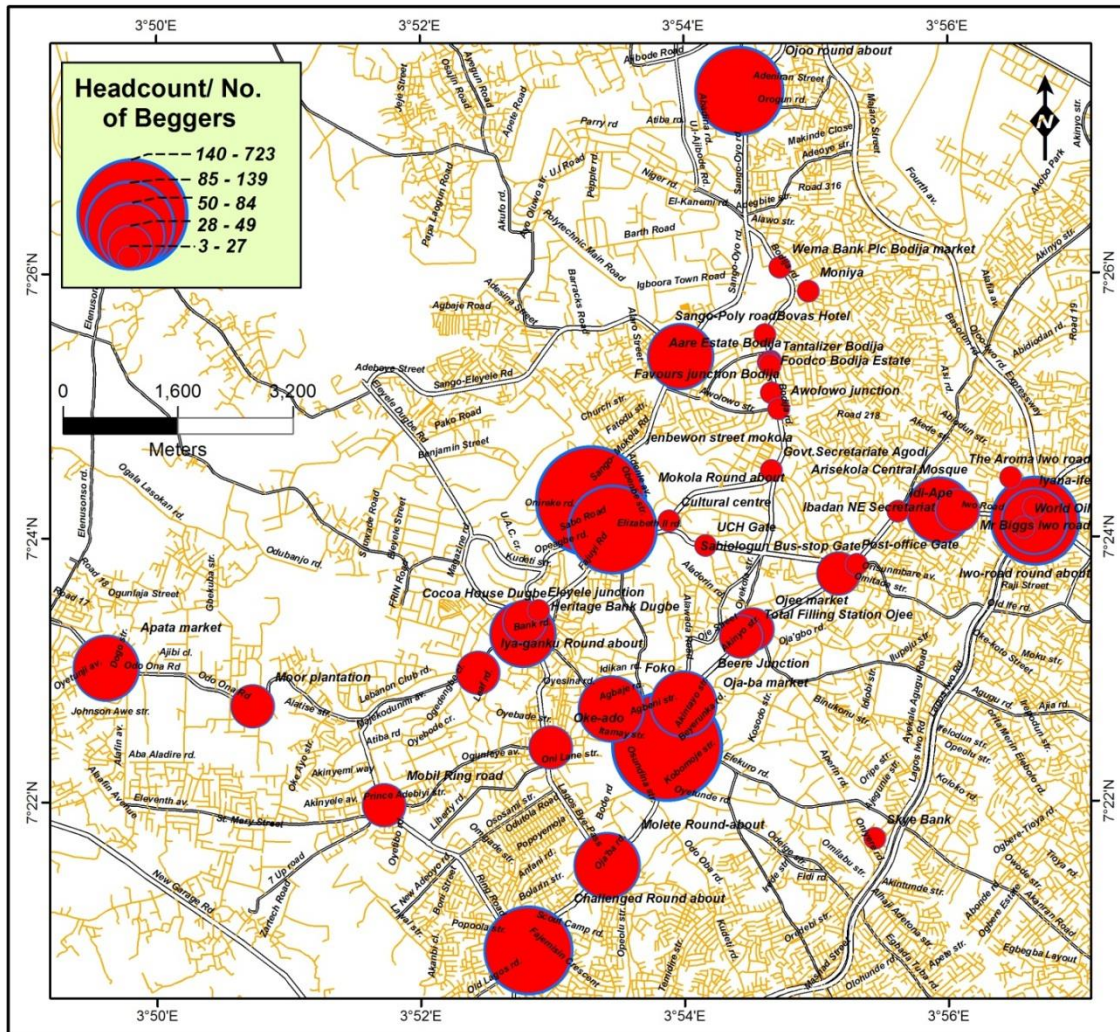


Fig. 3. Pattern and distribution of street beggars in Ibadan Metropolis.

Source-Author's Field Survey, 2019.

executive offices, restaurants, corporate organizations, along with Nigerian railway corporation office, churches and mosques, and investment houses. It enhanced trade, commerce, human and vehicular mobility that encourage accessibility, mobility, and the influx of people around the city-center for their varied socio-economic and cultural activities. This serves as attractive zones for beggars to solicit for alms. The geographic features of Sabo-Jenbewon as part of the central of Ibadan, the economic hub, and social melting point create a breeding ground for the higher incidence of begging in the metropolis.

There are estimated 528 estimated street beggars at Oja-ba. Oja-ba occupies the traditional central business district that featured Oja-ba (King's Palace), central mosque, and markets within Oja-ba and other adjoining settlements such as Mapo, Beere, Foko. Oja-ba market is characterized by the sales of traditional fabrics of Aso-oke, fruits, food stores, Islamic accessories, household items and connects to Molete and Challenge. These prevailing land use and socio-economic and cultural activities encourages the influxes of street beggars in Oja-ba. Majority of the beggars in Oja-ba are also Hausa who come from Sabo, Ojoo, Foko, Beere, and other adjoining locations.

There are estimated 123 street beggars at Mokola under-bridge which occupy the modern central business district and other features explained above. There are estimated 117 street beggars at Challenged round-about which is characterized by banks, commerce, and transport networks that connect to Lagos, industrial zones of Oluyole Estate, residential land use within the city center. 109 estimated street beggars at Ojoo round-about which serves as a transport route that connects from Shasha, Fiditi, Oyo town to Ibadan, as well as featured filling stations, commercial bus stops, restaurants, shopping malls, and local markets for sales of food stores ,household items and proximity to University of Ibadan that provides habitat for students and staffs of the University. There are 84 estimated street beggars at Foko market; 74 at Beere round-about; 64 at Cocoa-house road intercession; 63 at Sango road intercession; 62 at Iyana-Ife expressway and Arisekola central mosque respectively; 58 at Apata bus-stop.

There are 49 street beggars at Eleyele junction; 47 at Mobil filling station, Ring road; 45 at Agodi post office and Ojee market respectively; 43 at Oke-Ado garage; 39 at Ibadan North East Secretariat gate Abayomi; 37 at Total filling station Ojee;; 27 at World Oil filling staton Iwo road; 25 at Sabiologun market Agodi; 23 at Bodija railway line; 19 at Skye bank gate Agodi; 18 at Government Secretariat gate Agodi; 16 at Aare Estate Bodija; 13 at Favours junction Bodija, UCH gate, and Heritage Bank Agodi respectively; 15 at Foodco Bodija Estate; 12 at Aroma restaurant Abayomi; 11 at Wema bank Agodi; 9 at the Cultural center gate; 7 at Bovas filling station Bodija; and 3 at Tantalizer Abayomi and were the least populated. These are locations with relative higher numbers of street beggars in Ibadan Metropolis and other locations with pockets of beggars. The spatial distribution of beggars in the Ibadan Metropolis could be associated with the prevailing land use, socio-

economic activities, and uncoordinated physical planning in controlling activities at the informal level.

**Correlate of Distance on Distribution of Street Beggars in Ibadan Metropolis**

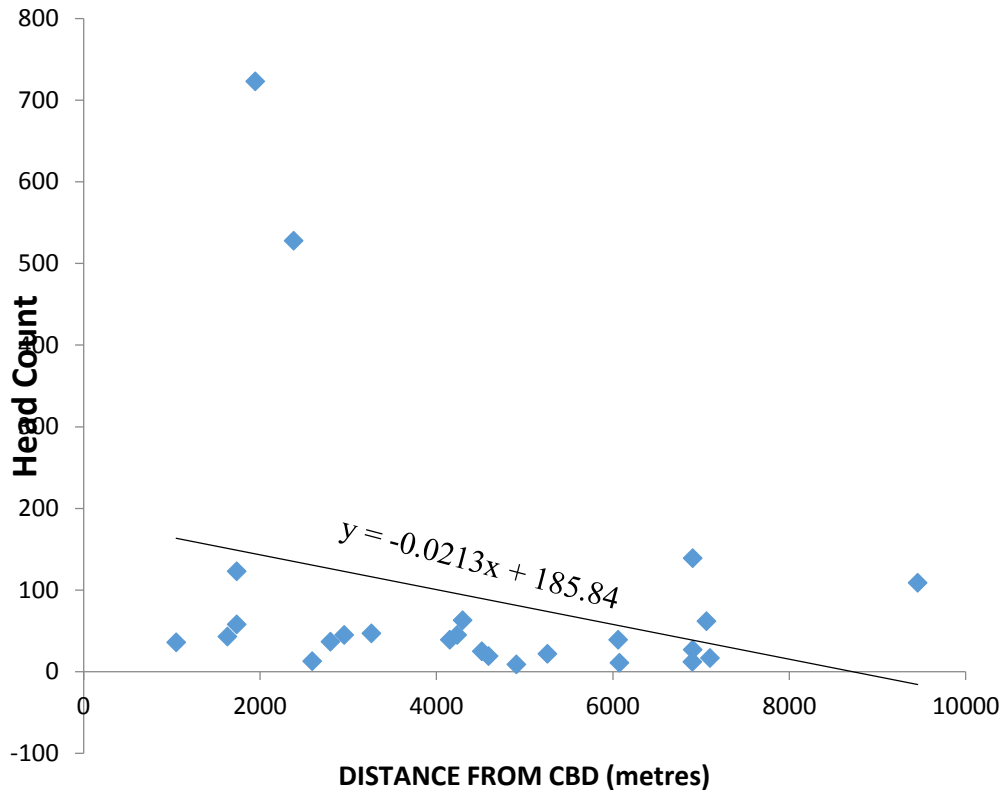


Fig. 4. Scatter diagram showing number of street beggars and actual distance from the CBD (Mokola-Dugbe).

Source-Author's Field Survey, 2019.

The scatter diagram in Fig.3 indicates that there is a negative relationship between distance and the number of street beggars along the central business district. This means that as distance increases from the central business district, the number of street beggars' decreases. The simple linear regression  $y=-0.0213x+185.84$  shows that the regression coefficient of -0.2023 with a constant of 185.84 and ( $R^2$ ) of 0.0804 which shows that distance account for 10% for the spatial distribution of street beggars along the central business district (CBD).

This explains that other related factors are influencing the spatial distribution of street beggars along the central business district (CBD) in the study area. Factors such as proximity to road intersection, proximity to the convergence of economic and commercial activities, easy accessibility from a place of begging to a place of residence among others may serve as factors influencing the choice of locations of street beggars in the study area.

## **Conclusion**

This study has examined street begging in Ibadan metropolis by considering locations, pattern and distribution. The study findings revealed that there are 2916 estimated street beggars at the identified location. The study showed that the spatial distribution of beggars in the Ibadan Metropolis is influenced by the prevailing land use, socio-economic activities, and uncoordinated physical planning in controlling activities at the informal level. Furthermore, the locational pattern of street beggars is randomness that cluster in Ibadan Metropolis and distance account for 10% of the spatial distribution of street beggars along the central business district (CBD) of Mokola-Dugbe. The study concludes that Ibadan Metropolis is becoming an emerging city not only in terms of socio-economic activities, increased human population, and uncontrolled urban expansion but also accommodating numerous influxes of beggars into the city.

## **Recommendations**

Based on the findings of the study, the following recommendations are made:

- i. Health care facilities should be provided for the aged, physically-challenged street beggars and meet the needs of other categories of street beggars. Since the major drivers associated with street begging are poverty-driven, disabilities, and inadequate medical care. Providing the needs of beggars will control the incidence of begging in Ibadan Metropolis.
- ii. State Government needs to strengthen efforts to set up a task force to control the influx of street beggars especially in road intercessions, markets, marginal land use, traffic lights, and other public places. This will control the spatial spread of beggars in public places in Ibadan Metropolis.
- iii. There should be physical planning measures. Planning authority in Ibadan should adhered strictly to the land use in controlling different socio-economic activities at markets, road intercessions, commercial centers, vacant land use, and other places that serve as attractive zones for beggars. This will reduce traffic caused by street beggars along road intercessions and markets and enhanced urban governance.
- iv. The government should control the growth and development of illegal settlements and urban renewal programmes at the core-periphery of Ibadan such as Sabo-Jenbewon, Oja-ba, Ojoo, and Shasha that serves as an abode for different categories of beggars.

- v. There should also be a change in the attitude of street beggars, especially those who have perceived begging as a profession and those who erroneously associate begging with Islam. This will encourage beggars to earn a living in a more decent, legal, ethical, and sustainable.

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## **Biafra and International Non State Actors' Support: Diplomatic Implications for Nigeria**

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### **Abstract**

Despite the various narrations, writings and debates on the Nigeria civil war, little attention has been paid to the actual existence of Biafra as a country from 1967 to 1970 and the support and aids received from the international non-state actors. This study examines the contributions of the Non-State actors to the literature on the civil war from the perspective of the impact of such support on the war. Relying on newspaper reports, interviews, commentaries and secondary sources such as journal articles and books, the study adopted frustration-aggression theory as theoretical framework of analysis. The methodological approach adopted is multidisciplinary and qualitative analysis with historical narratives. The study examines the nature, structure and impact of non-state support in the overall outcome of the thirty month war and the implications of such support in diplomatic terms for Nigeria. The findings of the study reveals that the availability of support from state and non-state actors had tremendous impact on the duration/outcome of the war. The study reveals that, although Biafra was ill-equipped for the war, with fewer army personnel and less equipment, it had a few advantages over the Nigerian state as they were fighting in their homeland, had the support of most Biafrans; instant recognition by Gabon, Cote d'Ivoire, Haiti, Zambia and Tanzania, emotional, material support but not recognition by Israel, France, Spain, Portugal, Norway, Zimbabwe, South Africa and the Vatican City. Critically, Biafra received support from non-state actors or non-governmental organizations including Joint Church Aid, The Holy Ghost Fathers of Ireland and Caritas International as well as the U.S. Catholic Relief Services. *Médecins Sans Frontières* (Doctors without Borders) also originated in response to the suffering of the Biafrans during the war. The study concludes that Non State actors had tremendous impact on the survival of the Biafrans, the duration of the war and overall narrative of the thirty month war. Non-State actors have a measurable effect on policy outcomes of other actors on the international scene. Based on the findings, the study recommends the need to strategically and diplomatically engage the Non-State actors for their intervention in the agricultural efforts of the country and her current struggles against terrorism.

**Keywords:** Aids, Biafra, Diplomatic Implications, International Non State Actors, Outcome and Support.

### **Introduction**

The various aspects of the Nigerian civil war otherwise called the “Biafran war” have been

well discussed, analysed and articulated by various scholars, historians, observers as well as authors. The intervention, interruptions, recognitions and participations of various governments and intergovernmental organizations especially the United Nations, the African Union and the Economic Community of West African States (ECOWAS) have also come under social, scholastic and political discourses, the aspects perhaps that have not been well discussed and therefore may be new in scholarship remain the perspectives of the aids, support, intervention of international non-governmental organizations and non-state actors in the thirty month war especially the impact of such on the war and diplomatic implications of such interventions for Nigeria.

The facts represented in this study are drawn from the reports, commentaries and analysis of the non-state actors and observers as one of the high points of the war, hitherto neglected. It is noteworthy that the war actually led to the evolution of some of the non-state actors for example, the International Humanitarian Organization *Médecins Sans Frontières* originated in response to the sufferings, deprivations and pains of the Biafrans (Doctors Without Borders, 2015). During the crisis, French medical volunteers, in addition to Biafran health workers and hospitals were subjected to attacks by the Nigerian army and witnessed civilians being murdered and starved, malnourished and left sick without medicine by the blockading forces of Nigeria.

The other non-state actors especially, *Médecins Sans Frontières* were very critical at this period of the outbreak of the war that the international community had viewed as preventable and as such the events leading to the outbreak of the war had not been given adequate attention by the international community especially the United Nations and the four year old Organization of African Unity who could not persuade Nigeria against the blockade.

A blockade can be described as an effort to cut off supplies, war materials or communications from a particular area by force, either in part or totally. A blockade should not be confused with sanctions or embargoes which are legal barriers to trade. While most blockades historically took place at sea, blockade is still used on land to prevent someone coming into a certain area. The Nigerian forces indeed blockaded the Biafran territory thus inflicting excruciating pains and hunger on the warring citizens.

A blockading power can seek to cut off all maritime transport from and to the blockaded region, area or country; although stopping all land transport to and from an area may also be considered a blockade. Blockades restrict the trading rights of neutrals, who must submit for inspection for contraband, which the blockading power may define narrowly or broadly, sometimes including food and medicine. In the case of Biafra, both warring and neutral Biafran area occupants suffered tremendous starvation and hunger leading to diseases.

French medical doctor Bernard Kouchner witnessed these events, particularly the huge number of starving children, so on his return to Paris, using existing media, he publicly criticized the Nigerian government and the Red Cross accusing both of complicit

behaviours. Indeed, not only the corporate image of the Red Cross that was damaged, the national image of Nigeria and estimation in the eyes of reasonable members of the international community was decimated (Bortolotti, 2004).

With the help of other French doctors, Kouchner put Biafra in the media spotlight and called for an international response to the situation. These doctors, led by Kouchner, concluded that a new aid organization was needed that would ignore political/religious and ethnic boundaries and prioritize the welfare of the victims (Bortolotti, 2004) of the war which could have been prevented in the first place if the political gladiators in Nigeria's first republic have responded to the yearnings and complaints of the people from her Eastern bloc. Unfortunately, the early signals of the impending war were ignored and down played by the political juggernauts in the country that were pursuing other interests other than the national interest.

Interestingly, in their 2017 study on *Smallpox and its Eradication*, Fenner and his colleagues describe how vaccine supply shortages during the Biafra smallpox campaign led to the development of the focal vaccination technique, later adopted Worldwide by the World Health Organization of the United Nations which led to the early and cost-effective interruption of smallpox transmission in West Africa and elsewhere (WHO 2017 Reports). Thus, the Biafran war indeed became a breeding ground for humanitarian service providers and activation of non-state actors. Although, non-state actors were already in existence, the war enhanced their impact.

## **Conceptual Clarification**

### **Biafra**

Now, therefore, I, Lieutenant-Colonel Chukwuemeka Odumegwu Ojukwu, Military Governor of Eastern Nigeria, by virtue of the authority, and pursuant to the principles, recited above, do hereby solemnly proclaim that the territory and region known as and called Eastern Nigeria together with her continental shelf and territorial waters shall henceforth be an independent sovereign state of the name and title of "The Republic of Biafra" (Ojukwu, 1967).

Biafra, officially the Republic of Biafra, was a secessionist state, a part of Nigeria which existed from 30 May 1967 to January 1970; it was made up of the states in the Eastern region of Nigeria. It was the above declaration that led to the outbreak of the popular Nigerian civil war, otherwise called Biafra war. It was the swift reaction of the Nigerian government to Biafra's declaration of independence that resulted in the outbreak of the war between Biafra and Nigeria. Indeed, the events of the previous months and the embedded mutual suspicion within the state had not been managed effectively and efficiently to guarantee the peace and restore hope to the component units of the entity called Nigeria.

The new state was immediately and formally recognized by Zambia, Tanzania, Cote d'Ivoire, Haiti and Gabon. Other nation-states, which did not give official recognition but provided support and assistance included but not limited to Israel, France, Spain, Portugal, Norway, Zimbabwe, South Africa and the Vatican City. Aside from the support and recognition by state actors, Biafra also received aid, support from non-state actors or non-governmental organizations which had tremendous impact on the parties to the war: The Joint Church Aid, Holy Ghost Fathers of Ireland, and Caritas International as well as the U.S. Catholic Relief Services *Médecins Sans Frontières* (Doctors without Borders) originated in response to the suffering of the Biafrans. This is the crux of this study. Within twelve months of the war, the Nigerian troops surrounded Biafra, capturing coastal oil facilities and the city of Port Harcourt. The blockade imposed during the ensuing stalemate led to mass starvation. There were about 100,000 overall military casualties, while an estimated 3 million Biafran civilians died of starvation (Phillips, 2018).

Indeed, the nation Biafra actually existed with Biafran forces, Biafran currency, Biafran flag, Biafran anthem and Biafran laws and tax system among others in the thirty months of her existence before surrendering under Nigeria's motto of "No-victor, No-vanquished" to the Nigerian Federal Military Government. The surrender was facilitated by the Biafran Vice President and Chief of General Staff, Major General Philip Effiong who assumed leadership of the Republic of Biafra after the original President and leader of the new nation Col Chukwuemeka Odumegwu Ojukwu fled from the battle to Cote d'Ivoire (Barnaby, 2000). Unfortunately, after the surrender, some properties owned by Biafrans were seized by Nigeria in the Abandoned Properties Act of September 28th, 1979 (Mwalimu, 2005). The bank accounts owned by Biafrans were also confiscated and each Biafran was given £20. Federal projects in Biafra were also greatly reduced compared to other parts of Nigeria. These factors have continued to generate high sense of disappointment and resentments from the Biafrans to the extent that the wounds have refused to be healed.

In mid-1968, images of malnourished and starving Biafran children saturated the mass media of western countries. The plight of the starving Biafrans became a *cause célèbre* in foreign countries, enabling a significant rise in the funding and prominence of international non-governmental (NGOs) and Non-state actors. The United Kingdom, United States and the Soviet Union were the main supporters of the Nigerian state while the French, the Israelis and some other countries in Africa and beyond supported Biafra.

In 1968, the federal government established the National Rehabilitation Commission (NRC) with the primary task of coordinating post-war food relief efforts, palliatives, compensating those whose properties have been destroyed or damaged by the war, resettling and assisting fleeing populations, and undertaking reconstruction projects.

However, these policies were never actually implemented in the post-war era, raising the question of whether or not the Gowon regime was sincerely committed to genuine reconciliation. The situation was aggravated when the federal government openly rejected,

rounded up, and expelled the personnel of humanitarian organizations and countries that were eager to assist in these efforts in Biafra at the end of the war. The federal government's reservations stemmed from the view that these relief organizations and church charities played a crucial role in sustaining Biafra's war efforts and in prolonging the conflict.

The federal government's half-hearted and insincere approach to reconciliation along with its misguided approach in dealing with humanitarian organizations and countries willing to assist in post-war reconstruction in the region marked the beginning of ill feelings and sentiments harboured by the Igbo in post-civil war Nigeria. Operating from a position of relative disadvantage and inequality, the East-Central state remained the only state out of the twelve created in 1967 to be governed by an "administrator," while the others had military governors. This situation persisted until the Gowon regime was toppled five years after the war. The above had severe, far reaching diplomatic implications for Nigeria.

### **International Non-State Actors' Support**

Apart from the support and aids received from states across the world, Biafra also received aid from non-state actors and non-governmental organizations including The Joint Church Aid, The Holy Ghost Fathers of Ireland, and Caritas International as well as the U.S. Catholic Relief Services. *Médecins Sans Frontières* (Doctors without Borders) also originated in response to the suffering of the masses of the Biafrans largely due to starvation, disease and frustrations. These non-state actors indeed played very crucial roles in the course of the war and even in the post war era and this study examine and analyses the actors and their contributions in turn.

### **Joint Church Aid**

The Joint Church Aid was formed in response to the increasingly desperate humanitarian situation occurring in Biafra during the war. Various Protestant church organizations had been frustrated with the World Council of Churches' neutral stance in the war and by its decision to work through the International Committee of the Red Cross (ICRC) to deliver aid. Joint Church Aid (JCA) was a collaboration of those groups and Caritas International. JCA was built on an earlier group, Nord-church Aid, a coalition of Northern European churches that had been coordinating airlifts of food, medicine and supplies to Biafra for several months. After an expansion of airfield capacity in October 1968, the organizations collectively decided it was time to purchase a larger aircraft in order to increase the shipments of aid to Biafra; this meant the formation of a coordinated group, thus the JCA was born.

At this point, then, there became two major relief efforts into Biafra. The ICRC's effort, which was supported by most governments and groups like the World Christian Council (WCC) was done with the permission of Nigeria's Federal Military Government and launched from Fernando Pó (now Bioko), an island off Equatorial Guinea; although

relations between the Nigerian government and the Red Cross were often tense and difficult. In early June 1969, a Red Cross plane was downed and the pilot killed; this effectively ended the ICRC's airlift. This created some diplomatic row between JCA and the Nigerian government.

The JCA airlift was launched from the island of São Tomé. Shortly after the JCA begins delivering aid, the JCA-USA is formed, made up of the National Council of Churches, Catholic Relief Services, and the American Jewish Committee. It raised funds to support the airlift of aid materials. The JCA also lobbied politicians in an effort to put pressure on them to call on the Federal Government of Nigeria to stop disrupting the humanitarian assistance being delivered to Biafra. Over the course of two years, pilots working for the JCA flew a total of 5,314 missions from São Tomé to various parts of Biafra, delivering a total of 60,000 tons of aid supplies. However, during the same time period, 25 JCA pilots were killed. This was a very unpleasant diplomatic error condemned by the international community including Nigeria allies and supporters. As a matter of fact, a section of the international media not only condemned the actions of Nigeria but also pressured the United Nations and the International community to compel Nigeria to pay compensation for the downed aircrafts and the families of the dead pilots.

### **The Holy Ghost Fathers of Ireland**

The Holy Ghost Fathers have been in Eastern Nigeria for about eighty-five years. Not until after the recent Nigeria-Biafra war has their influence been somewhat minimized. Arriving originally from France in 1885, the Roman Catholic missionaries, as we shall see later in this essay, exerted a considerable influence far out of proportion to their number. But despite that they had become a factor to be reckoned with ever since, their missionary activity has scarcely been studied systematically. One principal reason for this has been the reluctance of the Roman Catholic authorities to permit scholars to use their private archives in Paris.

The core of mission remains constant: the proclamation of the Good News of Jesus to those who have never heard it at all and to those who have heard it inadequately. But the manner in which this is accomplished varies according to context and opportunity. The goal is always to establish a viable local faith community with its own leadership, incorporating the language and customs of the people.

The group played major roles in the provision of medicine, aids and care to the victims of the Biafran war in Nigeria with a few of their missionaries losing their lives to diseases and gunfire from the Nigerian military who were not too comfortable or favourably disposed to international aid providers.

### **Caritas Internationalis**

Caritas Internationalis is a confederation of 165 Catholic relief, development and social service organizations operating in over 200 countries and territories worldwide.

Collectively and individually, their missions are to work to build a better world, especially for the poor and oppressed (CRS, 2017). The first Caritas organization was established by Lorenz Werthmann on 9 November 1897 in Germany (CRS, 2017). Other national Caritas organizations were soon formed in Switzerland (1901) and the United States (Catholic Charities, 1910).

Caritas Internationalis came in to assist the ailing, hungry and wounded in the course of the thirty months war in Nigeria. The body flew in aids into Biafra through the friendly neighbouring countries and at a point had altercations with the Nigerian military and officials. The relationship between Caritas Internationalis was not a very pleasant one. The group however remained in Nigeria all through the war as compelled by their mission to assist the victims of the blockade imposed by Nigeria with debilitating effects on the people from Biafra. It vacated Nigeria immediately the war was over. Even though the Catholic Church Nigeria had strong roots in Eastern Nigeria (Biafra), they withdrew their services because of Nigeria's posture. The Nigerian government levelled various allegations against the group bordering of religious motives and affiliation. This had tremendous impact on the multilateral relations of Nigeria.

### **U.S Catholic Relief Services**

Catholic Relief Services (CRS) is the international humanitarian agency of the Catholic community in the United States of America. It was founded in 1943 by the United States Conference of Catholic Bishops, the agency provides assistance to over 130 million people in more than 90 countries and territories spread across Africa, Asia, Latin America, Eastern Europe and the Middle East.

A member of the Caritas International, the worldwide network of Catholic humanitarian agencies, CRS provides relief in emergency situations and helps people in the developing world break the cycle of poverty, starvation and malnutrition through community-based, sustainable development initiatives as well as peace-building, peace-making and peace-negotiation which is based solely on need, not race, creed, culture or nationality. Even though the Catholic Relief Services is headquartered in the Posner building in Baltimore and Maryland in US, it operates numerous field offices on the five continents. CRS has approximately 5,000 employees around the world. The agency is governed by a Board of Directors consisting of 13 clergies (most of them Bishops) and 10 lay people (Caritas Jordan Humanitarian Response). The group grew in anger against the Nigerian government in the face of their deliberate calculated efforts to subject their kith and kin to all forms of malnutrition, hunger and anger.

Initially founded as the War Relief Services, the agency's original purpose was to aid the refugees of war-torn Europe. A confluence of events in the mid 1950s; the end of colonial rule in many countries, the continuing support of the American Catholic community and the availability of food and financial resources from the U.S. government assisted the CRS



to expand its operations. Its name was officially changed to Catholic Relief Services in 1955, and over the next 10 years (1955-1965) it opened 25 country programs in Africa, Asia, Latin America and the Middle East.

The Catholic Relief Services began working in Nigeria in the early 1960s before the outbreak of the Nigerian civil war but almost on peripheral, selective and targeted programmes. It became very active during the 1967-1970 civil war in the area of emergency response. It is noteworthy that even though the US along with some other states like the UK, took side with Nigeria in the war, the CRS was non-partisan as they concentrated on their mission of providing relief packages, emergency medicare and rehabilitation of the wounded victims of the war.

After the war in 1970, the Nigerian government instructed CRS and other international development agencies to leave the country. Thirty years later, with the return of democracy after years of military rule, CRS returned to Nigeria in 2000 at the invitation of the Catholic Bishops Conference of Nigeria. In partnership with the Catholic Church, other faith-based and community-based organizations, the private sector, local and international NGOs, and government institutions, CRS implements a range of complex programs with support from a variety of donors and private funds.

CRS works in three priority sectors: agriculture and livelihoods, health systems strengthening (HSS), and emergency response, recovery and resilience. CRS' HSS programs address HIV/AIDS, malaria, nutrition, and routine immunization/ polio eradication, and have also provided support to orphans and vulnerable children and their caregivers. Under livelihoods, CRS supports households, communities and farmer groups to increase their agricultural productions diversify their incomes and improve their economic resilience to shocks. The suspension of the CRS from Nigeria for thirty years (1970-2000) has socio-political, economic and diplomatic implications: the polio free status of Nigeria just attained in the year 2020 would have been attained earlier with the intervention and participation of the CRS in the immunization/polio eradication programmes and projects as it would have covered areas hitherto neglected by the Nigerian government initiative due to lack of funds or lack of personnel, the prevalence of the HIV, malaria diseases would have received greater attention.

CRS programming includes: promoting human development by responding to major emergencies, fighting disease and poverty and nurturing peaceful and just societies: emergency relief in the wake of disasters and civil conflict, long-term development programming in the areas of agriculture, water, community health, education, health, HIV/AIDS, micro finance and peace building. Overseas work is done in partnership with local church agencies, other faith-based partners, non-governmental organizations and local governments. CRS emphasizes the empowerment of partners and beneficiaries in programming decisions. Program examples include:

- Agriculture: CRS' immediate goal is to improve family well-being through agro-economic development and environmental stewardship. The long-term goal is to strengthen the capacity of local communities to take control of their own development. (Levy, 2006).
- Emergency Response: Natural and human-caused disasters disproportionately affect the lives of the poor. CRS works to ensure that disaster-affected populations are at least able to meet their basic needs and live a life with dignity. The agency works directly with affected communities and local partners to help restore and strengthen their pre-disaster capacities.
- Peace-building: The agency's commitment to global solidarity led CRS to adopt peace-building as an agency-wide priority. Peace-building in this context is defined as the long-term project of building peaceful, stable communities and societies.

### ***Médecins Sans Frontières (Doctors Without Borders)***

During the Nigerian civil war of 1967 to 1970, the Nigerian military formed a blockade around the newly independent Biafra: a south-eastern region component part of the country. At this time, France was one of the only major countries supportive of the Biafrans (the United Kingdom, USSR and the United States sided with the Nigerian government), and the conditions within the blockade were unknown to the world. A number of French doctors volunteered with the French Red Cross to work in hospitals and feeding centres in besieged Biafra (*Médecins Sans Frontières*, 2011). One of the co-founders of the organization was Bernard Kouchner, who later became a high-ranking French politician.

After entering the country, the volunteers, in addition to Biafran health workers and officials and hospitals, were subjected to attacks by the Nigerian Army and witnessed civilians being murdered and starved by the blockading forces. The doctors publicly criticised the Nigerian government and the Red Cross for their seemingly complicit behaviour. These doctors concluded that a new aid organisation was needed that would ignore political/religious boundaries and prioritise the welfare of victims. (*Médecins Sans Frontières*, 2011).

The *Grouped 'intervention médicale et chirurgicale enurgence* ("Emergency Medical and Surgical Intervention Group") was formed in 1971 by French doctors who had worked in Biafra, to provide aid and to emphasize the importance of victims' rights over neutrality. The group indeed provided succour and support from the Biafrans who had suffered terribly during the thirty month war. Various forms of diseases were treated across the nooks and corners of the Biafran conquered state with administration of free drugs, eye glasses and in some cases even surgery. Some of these cases handled by the Doctors without Borders would have degenerated in the process of waiting for the government intervention and attention

## **Diplomatic Implications for Nigeria**

The Nigerian government in the course of the war garnered some support and solidarity from both international responses and reactions to conflicts wherever and whenever they arise, to a large extent; either contributes to the quick resolution of the conflict or its longevity. This is because whenever a conflict receives passive response especially internationally, there is always the tendency for the actors to infringe on the rules of engagement and other actions or inactions which negate international law.

Apart from that, comments and opinions shape international perceptions of the conflicts as well as the actions of the actors and how these are interpreted. The international media and comments were skewed against Nigeria in most parts of Europe and which greatly informed the Pope's decision to support Biafra. As a matter of fact, he propaganda machines of Biafra were never countered by Nigeria obviously because Nigeria tried as much as possible to wittingly or unwittingly paint a picture of an internal conflict rather than genocide as portrayed by Biafra in the international media. That dealt a huge blow to the Nigerian image in the estimation of reasonable people across the world with colossal diplomatic damages that took several years to repair or improve.

The physical practical witness of the French medical doctor Bernerd Kouchner of the pains, aches, diseases and starvation of the Biafrans especially children and women and particularly the huge number of starving children, and, when he returned to France, he publicly criticized the Nigerian government and the Red Cross for their seemingly complicit behaviour. With the help of other French doctors, Kouchner put Biafra in the media spotlight and called for an international response to the situation. These doctors, led by Kouchner, concluded that a new aid organisation was needed that would ignore political/religious boundaries and prioritise the welfare of victims. This submission was indeed a diplomatic minus for Nigeria as the government and people of Nigeria were subjected to very critical criticisms of their handling of the conflict with their kith and kin. Several aids were withdrawn from Nigeria and either cancelled or diverted to the Biafran side.

As recent as 2010, researchers from Karolinska Institute in Sweden in close collaboration with the University of Nigeria, Nsukka showed that Igbos born in Biafra during the years of the famine were of higher risk of suffering from obesity, hypertension and impaired glucose metabolism compared to controls born a short period after the famine had ended in the early 1970s. The findings are in line with the developmental origin of health and disease hypothesis suggesting that malnutrition in early life is a predisposing factor for cardiovascular diseases and diabetes later in life (Hult, 2010). Till date, several medical and health references are still made to the event for which the international community especially World Health Organization (WHO), Medical Historians, Health Researchers and commentators have berated Nigeria. Unfortunately, neither the Nigerian government nor the government of the five Eastern states (former Biafra) have taken any health

measures to address the issues raised by the medical research. The international community view Nigeria as irresponsible in this regard. The WHO expected Nigeria to have initiated healthcare programmes for the survivors of the civil war.

Furthermore, a 2017 WHO report found that Biafran "women exposed to the war in their growing years exhibit reduced adult stature, increased likelihood of being overweight, earlier age at first birth, and lower educational attainment. Exposure to a primary education program mitigates impacts of war exposure on education. War-exposed men marry later and have fewer children. War exposure of mothers (but not fathers) has adverse impacts on child growth, survival, and education. Impacts vary with age of exposure. For mother and child health, the largest impacts stem from adolescent exposure." (Heerten, 2014). The international community expects Nigeria to be worried about this finding but the successive military and democratic regimes in Nigeria have shown absolutely zero concern for these women especially considering the impact of the war on their life span, health care and procreation. The diplomatic implications of this negligence cannot be farfetched: apart from the contribution to the negative indices of the nation's healthcare index, it also negates the United Nations' (WHO) policy and has shut the door of international donors on Nigeria's specific health care aids.

The Holy Ghost Fathers have been in Eastern Nigeria for about eighty-five years. Not until after the Nigeria-Biafra war has their influence been somewhat minimized, with most of their activities that would have been beneficial to Nigerians have been withdrawn or minimised greatly. The Holy Ghost Fathers run the Holy Ghost Airline which would have enhanced Nigeria's dream of a functional profitable airline and national carrier in the overall interest of the Nigerian economy and image abroad. The expertise of the Holy Ghost Fathers should have been explored and exploited to build a world class national carrier with enviable records of superlative management and profitability. Unfortunately, the experience of the Holy Ghost Fathers and the attendant goodwill was lost.

Aside from that the Holy Ghost Fathers usually opened schools and hospitals, taught people marketable skills, and gave property to those who needed it. The Spiritans pioneered modern missionary activity in Africa and ultimately sent more missionaries to the continent than any other religious order in the Catholic Church. The humanitarian activities of this team would have enhanced Nigeria's educational standards, met some healthcare needs and taught so many people marketing skills that would have pulled them out of poverty but for the negative perception of Nigeria as a consequence of the civil war.

Because of the views generously expressed by the non-state actors in the international media, a few of the other non-state actors that would have contributed greatly to the post-war rebuilding efforts of Nigeria had withdrawn or withheld their services and aids to Nigeria.

In early June 1969, a Red Cross plane was downed and the pilot killed; this effectively ended the ICRC's airlift. This created some diplomatic row between JCA and the Nigerian government.

## **Conclusion**

The Nigeria–Biafra war that raged between 1967 and 1970 made headlines around the world, with screaming headlines above all for the major famine in the secessionist enclave of Biafra, and prompted a major international relief. It was a genuinely global event that aroused the prompt, positive and massive attention and assistance of the international humanitarian agencies and even the formation of new ones as discussed above. Unfortunately, by the late 1970s, the activities of the non-state actors and the impact of such activities and interventions were seldom discussed outside Nigeria. The Nigerian civil war otherwise labelled Biafra war would have had a different outcome if not for the support from both state and non-state actors which indeed impacted on the narratives and the outcome.

The Organization of African Unity (OAU) stance proved helpful for Nigerian diplomacy. Nigeria first turned to the Soviet Union for support after the west refused to provide arms to the federation, and after the war, a less pro-western stance was maintained. At the same time, Africa remained Nigeria's top priority.

The war and role of the international humanitarian bodies and non-state actors have not attracted so much attention from researchers and scholars since the end of the war in 1970 except for the memoirs, reports and records of the humanitarian bodies. However, in recent years, scholarly interest in the conflict is increasing. Alongside with a renewed literary interest in the war and its legacy, the international history of the war and the humanitarian operation in particular have started to attract the attention of historians and academics of other disciplines.

The international non state actors indeed contributed greatly to the alleviation of the suffering of the victims of the civil war and indeed drastically reduced the number of deaths through various feeding, healthcare counselling, clothing and farming programmes and projects.

## **Recommendations**

Based on the findings, the study made the following recommendations;

- i. The Nigerian government should ensure further research into the activities of the Non-State actors especially before the outbreak of the civil war, with a view to understanding the extent of their impact on the Nigerian society before the war and possibly get them back on that track.
- ii. It is also imperative that the nation's image battered by the treatment and eventual expulsion of the Non-State actors be deliberately consciously addressed. This is to enable the Non-State actors resume their humanitarian,

- medical and agricultural services that will enhance the lives, living standards of the citizens and the economic advancement of the country.
- iii. Efforts should also be made to strategically and diplomatically engage the Non-State actors for their intervention in the agricultural efforts of the country as the nation begins the struggle for the diversification of the economy and food security for the nation.
  - iv. Nigeria in her current struggles against terrorism should appropriately direct research and intelligence gathering on the activities of Non-State actors with a view to determining their impact on the elongation of the war. It has now been established from this paper that Non-State actors indeed impact on the duration of wars including terror.

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## **The Media in Conflict Management/Prevention and Peacebuilding in Nigeria: A Pragmatic Approach**

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### **Abstract**

This study examines the increasing debate on the ethics of reporting conflict, and outlines series of principles to guide media practitioners, conflict resolution professionals and NGOs on how the media can best play a constructive role in conflict and post-conflict scenarios. The study refers to a number of field projects that demonstrated good practice, as well as those several ones that failed. The study stressed that the very existence of conflict impedes the existence of peace, which is a panacea for socio-economic and political development. Existence of conflict in one part of the world threatens the existence of peace on the other parts as well. And since this era of human civilization is a period of global interconnectedness, the role of media in enhancing peace cannot be overlooked. Media is a tool that can be used to create conflict and also create sustainable peace. Media has dual place in any social milieu. At present, media works as a common platform to create awareness among the global stakeholders regarding issues of interests. The growing concerns about the global issues are interconnected and facilitated through media. Hence, media can play a vital role at different levels in mitigating violence and promoting peace. This article is an attempt to find a general conceptualization of peace and violence as well as to look deep into the role of media in reducing violence and the creation of peace. The paper concludes by presenting some life-line for further research and action to further stress media role in peacebuilding.

**Keywords:** Conflict, conflict management Media, Peace and Peace-Building.

### **Introduction**

The existences of conflict and peacebuilding efforts are two major concerns in the contemporary world. As long as conflict exists, it is not possible to ensure total peace. The scholars in favour of world peace have hypothesized and theorized on various methods to ensure peace and make it sustainable that conflict does not replace peace again. In this respect, the media is considered to be vital adjunct in promoting peace and its sustainability. The role of media and its impact is manifold. From the national, regional and international levels, the presence and influence of media is noticeable everywhere. Though conflict and peace are completely opposing ideas, they are interconnected. Peace



has different meanings and interpretations. At the same time, conflict is multi-faced and multileveled. In all the dimensions of their manifestations, media can penetrate and play an important role to minimize the threat of violence and to promote peace. Hence, it is imperative to understand the concepts of violence, peace, peacebuilding and the role of media. This paper is an attempt to discover these ideas and analyze the complex interactions among them.

Information is power and it can impact on public discourse. Perceptions can be changed by accessing information churn out by media. Different types of media are utilised globally to distribute knowledge and ideas ideally, free mass media is a tool of and signpost for democracy. Freedom of expression is not only at the core of a healthy media but also a fundamental human rights and a vital element for a democratic structure. It stands for freedom of speech, the right to access information and the representation of different opinions in a heterogeneous society. In any culture of prevention, effective and democratic media are an essential part and very much indispensable for societies trying to make a transition towards peace and democracy (Rafal, 2007).

Lack of information can, at any stage of a conflict, make people desperate, restless and easy to manipulate. The ability to make informed decisions strengthens societies and fosters economic growth, democratic structures and the positive outlook for the future. For this very reason, the United Nations Millennium Declaration stressed the need “to ensure the freedom of the media to perform their essential role and the right of the public to have access to information”.

The media does not need justification for its existence. Its service to society is justification in itself. The media can not only help to distribute information but also counter hate-speech and create an environment of balanced opinions, i.e. information equilibrium. For the media it can be problematic to find a balance between preventing harm caused by speech and protecting individual expression. Being able to find this balance, however is important especially in conflict situations. Responsible media practice does not just re-publish press releases but is truly concerned with a truthful, balanced and fair account of events. In order to achieve this, journalists have to stay clear of judgemental representations and describe reality without embellishment (Ronald, 2004).

In case of a crisis or a conflict, the international media can attract worldwide attention. The mass media is a pervasive part of daily life especially in industrialised countries and thus able to shine a light on conflicts anywhere in the world. Since most armed conflicts these days have governmental and not territorial reasons; the parties are often concerned with making sure that the majority of people are on “their” side, which bears a lot of potential for misrepresenting facts and trying to seize control over the distribution of information. For this very reason the intervention of unbiased and free global media is important not only for the world public but also for the people directly affected. However, the number of

conflicts, that gets international attention is small; therefore, local media is vital in this context (Deutsche Welle, 2009).

### **Brief History of Media**

Since the overall history of media covers an extensive time frame and could be the subject of a thesis itself, for the purpose of this paper the history of media as it relates to the timeframe of peacekeeping operations will be discussed relatively within a limited period. At the end of the 1950s, the most pervasive form of mass media was television, as nearly 90% of American homes had television sets (Sterling & Kittross, 1999). In 1969/1970 the United Nations division “COMNET” (Network of Documentation Centres on Communication Research and Policy) was founded “for the support of research activities in the field of communication by publishing a mass communication thesaurus...Between 1969 and 1981, UNESCO was a principal actor in a rising international communication debate...” (Volkmer, 1999).

The strong correlation between public opinion and media is best demonstrated by coverage of the Vietnam War. This statement is founded in the MacBride Report of 1981, referring to the war as one of “the most recent examples of the press’s ability to unearth facts, to forge opinion and to encourage the people to act.” The media often employs the idea of “objective journalism” and journalists often coin the term “neutral observer” (Williams, 1993). As it relates to governments and conflict, “governments use broadcasting to help build or reinforce value consensus among key support groups, as well as to promote cooperation from integral state institutions in service of policy goals” (Zaffiro, 2002).

Interestingly, the policies associated with media outlets often focus on the interrelations created by opposition, power across political bodies, and conflict (Ibid.). In summary of a history of the media, the current media with which the world is presented on a minute-by-minute basis is full of mixed messages and multiple meanings and thus, “the classical enlightenment task of understanding, explaining, interpreting and evaluating is difficult to accomplish” (Eldridge, 1993).

### **Understanding Media and its Role in Creation of Peace**

Creation of peace is a herculean task and it is very much diverse. The creation of peace would include both peace-building and peacekeeping. Media plays a vital role both in peace-building and peacekeeping process. Peace-building is a prerequisite to the peacekeeping process. Hence, it is an issue of paramount importance to conceptualize the idea of peace-building. In 1992, former UN Secretary General Boutros Boutros-Ghali introduced the concept of peace-building in his ‘An Agenda for Peace’. He defined peace-building as “action to identify and support structures, which will tend to strengthen and solidify peace in order to avoid a relapse into conflict.” The Brahimi Report from 2000 defines peace-building as “activities undertaken on the far side of conflict to reassemble

the foundations of peace and provide the tools for building on those foundations something that is more than just the absence of war”. In 2007, a more detailed and comprehensive definition of peace-building was offered by the UN Secretary General’s Policy Committee thus:

“A range of measures targeted to reduce the risk of lapsing or relapsing into conflict by strengthening national capacities at all levels for conflict management, and to lay the foundation for sustainable peace and development. Peacebuilding strategies must be coherent and tailored to the specific needs of the country concerned, based on national ownership, and should comprise a carefully prioritized, sequenced, and relatively narrow set of activities aimed at achieving the above objectives.”

At this juncture, there is need to understand the importance of media in the peace-building process in light of the definition mentioned above. In the contemporary world, media is one of the major players which can penetrate into individual personal life right up to issues of international interest and concern. Media has grown manifold with the pace of globalization. The term media refers to both ‘traditional’ mass media (newspapers, TV, radio) and social media (online blogs, Facebook, Twitter etc.). The two have become ‘intimately intertwined,’ with both being used as sources of news and information and tweets used as sound-bites. “Media and journalism should be understood as part of a wider ‘communication ecology’ that includes a wide range of stakeholders and practices.” In discussing the role of media in reduction of conflict and creation of peace, first there is a need to understand the nexus between the two.

The overall aim of peacebuilding is to prevent violent outbreaks of conflicts or to transform violent conflicts in a sustainable manner into peaceful means. Here peacebuilding not only tries to prevent the outbreak of violence but also tries to turn violence into sustainable peace. Peacebuilding involves a multitude of activities, all aimed at decreasing the probability of violent conflict.

On the other hand, it is the media that shapes what we see, hear and understand about conflict or violence. As Michael Howard (1971), said media is very often used as a tool for political purpose or propaganda, media can play roles in limiting violence and creating peace and vice versa. The perspectives of those who run the media shape stories that are covered. Journalists have opinions and beliefs based on their experiences. Media owners have economic and corporate interests; they want to sell their stories and programs to a public who will buy their newspapers or watch their programs. Increasing corporate control over media in some countries also plays a role in controlling the types of stories that get covered and the way stories get framed. Therefore, there is a little scope what may be termed as ‘ideal’ state of media. Media is however distorted, fragmented and biased in many cases.

It is important for conflict prevention and peacebuilding practitioners to understand these values and the dynamics of media's decision-making on covering 'peace' news and entertainment. However, it does not preclude peace practitioners from utilizing the media to promote their own values. The role of media is now global rather than local or regional. Indeed, the media can play very positive roles in conflict prevention and peace-building. It should be mentioned in this regard that apart from the regular media like newspapers, radio and televisions, the explosion of digital technology combined with optic fiber and satellite links has given unprecedented access to information in recent years. Social networking sites like Facebook, Twitter, Instagram are some of the examples of the strength of new global media.

Moreover, the power of global communication largely benefits human rights, although not all people benefit to the same extent and there is a strong argument that the poorest are further marginalized as information 'have-nots'. Here the media is enlarging the gap between the 'have' and 'have-nots'. In the long run this may enhance the chance of violence and reduce the peace within the society. It is necessary to point out that the media has tremendous impact not only on public's perceptions but also it can reshape our judgments regarding any particular issue. Hence, we need to analyze different media to get a complete picture on any issue which are presented differently from different perspective in different media.

The following are some specific roles played by the media in management and peacebuilding of conflict:

- i. **Brings together different groups to discuss issues:** The media can be an effective tool to build relationships. It can support greater understanding and cohesion between people who consider themselves different from one another. It can give voice to the most marginalized in society. It can serve as a mediator between political parties especially in situations where there is no other means of communication particularly during conflict and post-conflict reconciliation. There are many FM stations and hundreds of smaller community stations across Nigeria networked to exchange programmes and news. They are a "true alternative source of information to official channels, and they focus on local issues and reflect Nigeria's ethnic and linguistic diversity." The South African "Peace Café" programme brought parties together who had been unwilling to meet by interviewing them separately and then editing the video and showing it to the other side. This process eventually led to direct negotiations between the parties.
- ii. **Helps Improve Governance:** Fact-based, independent, transparent, accountable and impartial reporting can serve to hold officials accountable and make public administrations more transparent. It enables citizens to be active stakeholders, to understand policies and use the impartial information provided to exercise their human rights. All of these are critical for conflict prevention. Investigative

reporting on the complicity of Latin American presidents was in large part responsible for the downfall of four presidents – Fernando Collor de Mello of Brazil in 1992, Carlos Andres Perez of Venezuela in 1993, Abdala Bucaram of Ecuador in 1997 and Alberto Fujimori in 2000.

- iii. **Increases Knowledge of Complex Issues:** These include issues such as corruption, political injustice, marginalization, lack of economic opportunity and struggles with identity that may drive violent extremism. It can help people critically think about and discuss these issues. Research has shown that people who were exposed to BBC Media Action’s political discussion/debate shows knew more, discussed more and participated in politics more, even when controlling for other factors that may influence these outcomes (such as age, income, education and interest in politics).
- iv. **Provides Early Warning:** Media can provide early warning of potential conflicts and possibly create pressure to address the conflict.
- v. **Outlet to Express Emotions:** Media can allow people to express their fears and frustrations and share experiences and advice with others. It can also link people with power holders, enabling open communication and dialogue. Example, ‘BringBackOurGirls’ mobilized emotional responses to the kidnapping of nearly 300 girls in Nigeria by a militant Islamist movement (Boko Haram). Celebrities, politicians, and citizens were brought together by their online demands for the girls to be returned while airing their dismay at the radical group’s actions.
- vi. **Motivator for Peace:** The media can motivate people to take action and to participate in community events. But the media’s impact on behaviour change is complex. It is more likely to work on attitudes and opinions that shape behaviours rather than directly affecting people’s actions.
- vii. **Media as Watchdog:** The media sometimes acts as a third party ‘watchdog’ which provides feedback to the public on local and international problems. Media can bring hidden stories out into the public. Investigative reports can surface public problems. This community-based reporting or locality-based reporting can accelerate development and peace in the society in the long run. Citizen reporting or citizen journalism is also a part of this. We have seen numerous examples of solving local issues using citizen journalism in Nigeria, for example. The concept of citizen journalism is becoming popular day by day in many parts of the world. Citizens are more informed and aware about the local problems. The explosion of new media has eased the way to a great extent.
- viii. **Media as Peace Promoter:** Media events can be used at the beginning of negotiations to build confidence, facilitate negotiations or break diplomatic deadlocks to create a climate conducive to negotiation. Media events such as press releases, rock concerts, or radio programs can celebrate peace agreements and negotiations. The media events may help to promote and mobilize public support for agreements. Apart from these responsibilities, a suggested framework used by

peace-building media can employ different strategies such as (i) Conflict-sensitive and peace journalism; (ii) Peace-promoting entertainment media; (iii) Media regulation to prevent incitement of violence, but also (iv) Peace-promoting citizen media.

### **The Role of Media in Peace Building and Conflict Management**

Broadcasting news by using community radios can help reach people in different areas, even with different languages more easily. This way people can be addressed directly and their own personal experiences and opinions can be incorporated through the feedback process. Although the danger of manipulation and inflammation of ethnic or related tensions looms very high, the regulating agency can be counted on to penalize a defaulting cast media. For Nigeria, the Nigeria Broadcasting Commission (NBC) regulates the broadcast media and the Nigeria Press Council (NPC) watches over the print. Another advantage of the media, especially radio, is that in border areas it is possible to convey peace messages to passing fighters and refugees alike. Democratic media structures need more than this; it is vital that the use of information within a society is not solemnly passive but that the population gets actively involved in creating content and broadcasting it.

Internal conflicts do not occur spontaneously but tend to have a history. Local media usually have a deeper understanding of the existing political structures, the participants of the conflict as well as the changes preceding the outbreak of violence. The media can therefore not only influence society before the conflict by recognising and properly addressing the issue but also afterwards. Unlike international media covering conflicts, local media are a recognized part of society with the ability to accelerate and magnify fears or reduce them. One should not forget that journalism can play a role in escalating conflicts, which also demonstrates the potential for positive purposes. The media have the power to defuse tensions before they even reach a critical point and keep a critical eye on government, opposition and society. By supplying credible information and reaching a large audience, the media help in managing conflicts and promote democratic principles. In the aftermath of a conflict, reconciliation and societal development can be encouraged as well.

These strategies adopted by the media would minimize the differences between or among the conflicting parties as well as highlight the similarities among them. When the common problems are highlighted, it would become easier to cooperate with each other to find a sustainable solution. At the same time, common interests will bind the parties together to provide a boost in the peacebuilding as well as peacekeeping process and thus minimizing the chances of relapse into violent conflict. Promotion of humanitarian values and virtues by the media will enhance the chances of sustainability of peace in the long run. In this regard, it should be borne in mind that conflict prevention and peacebuilding require a careful study of the lessons of social marketing to prepare for effective use of the media.

## **Conclusion**

With so much choice of news sources and channels for transmitting same, this should be a golden age for media. But in the shifting landscape where so many opposing voices are clamouring for attention, many people do not know who to trust. In many fragile countries fact-based, independent, transparent, accountable and impartial reporting does not exist because of the business and political interests of media owners and the lack of pay and training for journalists. In others, it is often subject to increased censorship, regulation and attack from parties that want to undermine its influence.

Media and journalism can be a great assistance in conflict management and peace building. However, the power they have is also limited, as they will never be able to eliminate armed conflicts altogether. The media can be a good tool in a healthy and functioning environment but more is needed than ethical and responsible reporting to ensure lasting peace and safety. The role of the media is twofold: on the one hand, the media report and reflect on pressing issues and can help to question established concepts and ideas. On the other hand, they can be used for propaganda purposes and instead of revealing truths, they try to cover things up and by this curtail people's freedom and right to information. Regardless, the potential of the media in conflict and post-conflict situations remains a net positive, and has been sadly underutilized to this point in time.

## **Recommendations**

Based on the findings of the study, the following recommendations are made;

- i. Ensure that all media for peace interventions reinforce shared identities between opposing groups rather than differences and keep fully abreast of changes to ensure interventions take advantage of and don't fall foul of 'new' ways to communicate. This may include setting up an information exchange on new developments and producing regular country and sector updates
- ii. Commit to prevention, before the outbreak of armed conflict, because that's when information is often compromised, rumours are rampant and emotions become heated.
- iii. Provide media practitioners with capacity strengthening activities to improve their technical, editorial and management skills to produce trustworthy and engaging programming that help reduce all forms of violence and encourage government based on the rule of law that upholds justice and human rights.
- iv. Support programmes that reach out to make citizens – including opinion leaders such as politicians, religious leaders and others in public life – more aware of the need for responsible and fact-based communications.
- v. Do not ignore the power that mass media (radio and TV) still has to reach people at a large scale, particularly the poorest, or the diversity of ways of

communicating with people. This may include face-to face communications, workshops or genres such as radio and TV drama and entertainment.

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## **Perception and Role of Religious Leaders in Climate Change Awareness and Mitigation in Sokoto State**

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### **Abstract**

It is a well-established fact that religious leaders play a prominent role in shaping, guiding and moulding of opinion, thinking and behaviour of adherent of their religion. How people perceived climate change and how it can be mitigated can be strongly influenced by the perception and roles played by religious leaders (who are often revered and respected) in that regard. Their contribution to the discourse on climate change can and will greatly enhance understanding of the phenomena and its mitigation means particularly amongst their subjects. Data for the study were collected via primary and secondary sources. Primary data was collected via administration of structured questionnaire to 125 Islamic Scholars (selected purposively) in Sokoto State. Major findings of the study reveals that majority of the scholars believes climate change is a reality and is affecting the environment and livelihoods of a lot of people negatively. The study highlighted that Islam strongly advocated for tree planting as an act of charity. Furthermore, the study found out that the role of religious leaders in educating their subjects on climate change awareness and mitigation is negligible and they attributed this to non-involvement by government and non-state actors such as NGOs and CSOs, inability to single-handedly carry out awareness campaign due to financial constraints and inaccessibility to electronic media. The study recommends among others, the need to engage these vital actors in climate change awareness and mitigation campaign(s) and supporting them with all necessary inputs financial and material to ensure their active involvement in climate change education as well as enhancement of sustainable communities and livelihoods in the study area.

**Keywords:** Awareness, Climate Change, Mitigation, Perception, Religious Leaders and Role

### **Introduction**

One of the most topical issue nowadays is global climate change. It might not be out of place to claim that climate change and global warming are now the foremost issues of global concern in the recent decades. For quite some time now the concern of all nations, environmentalist and stakeholders since the Rio Earth Summit in 1992 has been on how to mitigate the effect of climate change. Various high level meetings have been held at global, regional, national and local levels on how to mitigate the menace of climate change (Baylor & Brandhorst, 2015; Benessaiah, 2011; Gottlieb, 1996; Grim & Tucker, 2014; Hulme, 2009). Nations adopts various methods and strategies to educate and sensitize citizens on how to effectively deal with the negative effect of climate change on the environment and livelihood opportunities. Series of community engagement has been held with community

leaders, local populace and government agencies and Non-state actors on how best to handle global climatic impact. One option that has been neglected by both governments and its agencies in involving the populace on issues relating to climate change awareness and mitigation is engaging religious scholars in the process (see for examples, Odjugo, 2012; Oruonye, 2011; Dankani & Halidu, 2015; Eliade, 1968). These scholars are often revered and respected in their community. Their views, perceptions and attitudes can to a great extent moulds the thinking, psyche and attitude of the members of the society. Most at times opinion of these scholars are often sought before community members accept or reject any form of proposal particularly from the government.

Sokoto State located on the extreme North-western part of Nigeria is vulnerable to the effects of climate change, due to its high dependence on rain-fed agriculture, widespread poverty and weak mitigation and response capacity (Igwebuike *et al*, 2009). Igwebuike *et al* (2009) further assert that this vulnerability is compounded by the socioeconomic activities of the people. Africa's vulnerability to climate change and its inability to adapt to these changes may be devastating to the socio-economic life of the people. Majority of the people living within Sokoto state are natives and locals who normally view climate phenomenon from the prism of culture or religious beliefs and norms. The fact that the founding father of Sokoto is a renowned scholar and Jihadist (in the person of Sheikh Usmanu bin Fodio) inculcated a deep rooted respect for scholarly religious advice and opinion. Relying on Government agencies, NGOs and environmentalist to champion the task of climate change awareness and mitigation will not achieve the desired result without involving Islamic scholars in the process. Their input will give religious dimension to the awareness and mitigation effort and this will make the people and community to view issue of global climatic change and its mitigations as an act of service to God and humanity. It is important to note that at global level Muslim leaders have called on the world's 1.6 billion Muslims to play an active role in combatting climate change and have urged governments to conclude an effective universal climate change agreement by the end of 2018 (UNFCC, 2018). It is on this premise that this study seeks to examine the perception and role of religious leaders in climate change awareness and mitigation in Sokoto, state Nigeria with a view to identify their perception of the phenomenon and their level of involvement in climate change mitigation.

### **Description of Study Area**

Sokoto State is located to the extreme Northwestern part of Nigeria between latitudes 12° 00'N to 13° 58'N and longitude 04° 8' E and 06° 54' E. It covers a total land area of about 28,232.37 square kilometers. The State share boundaries with the Republic of Niger to the North, Kebbi State to the West and South West, and Zamfara State to the East. The State has 23 local government areas (Figure 1). Sokoto state is situated in the e Sudan savannah vegetation belt (Olayinka, 2003). The climate of Sokoto is tropical continental type dominated by two opposing air masses, tropical maritime and tropical continental. The

tropical maritime is moist and blows from the Atlantic, while the tropical continental air mass is dry, blows from the Sahara and predominates during the dry season. Much of the rains in Sokoto falls between the months of June and September. The annual rainfall is between 500mm<sup>3</sup> and 1300mm<sup>3</sup>. The state is characterized by hot and the cold seasons with the highest temperatures experienced during the hot season usually in the months of March and April. The Harmattan period starts from November to February and is characterized by cold temperatures and high dusty winds (Jibril, 2004).

Generally, the vegetation of the area is characterized by short and stunted shrubs and grasses around the metropolis, but the inner part and the precincts have vestiges and patches of vegetation composed mainly of trees (Eniolorunda & Dankani, 2012).

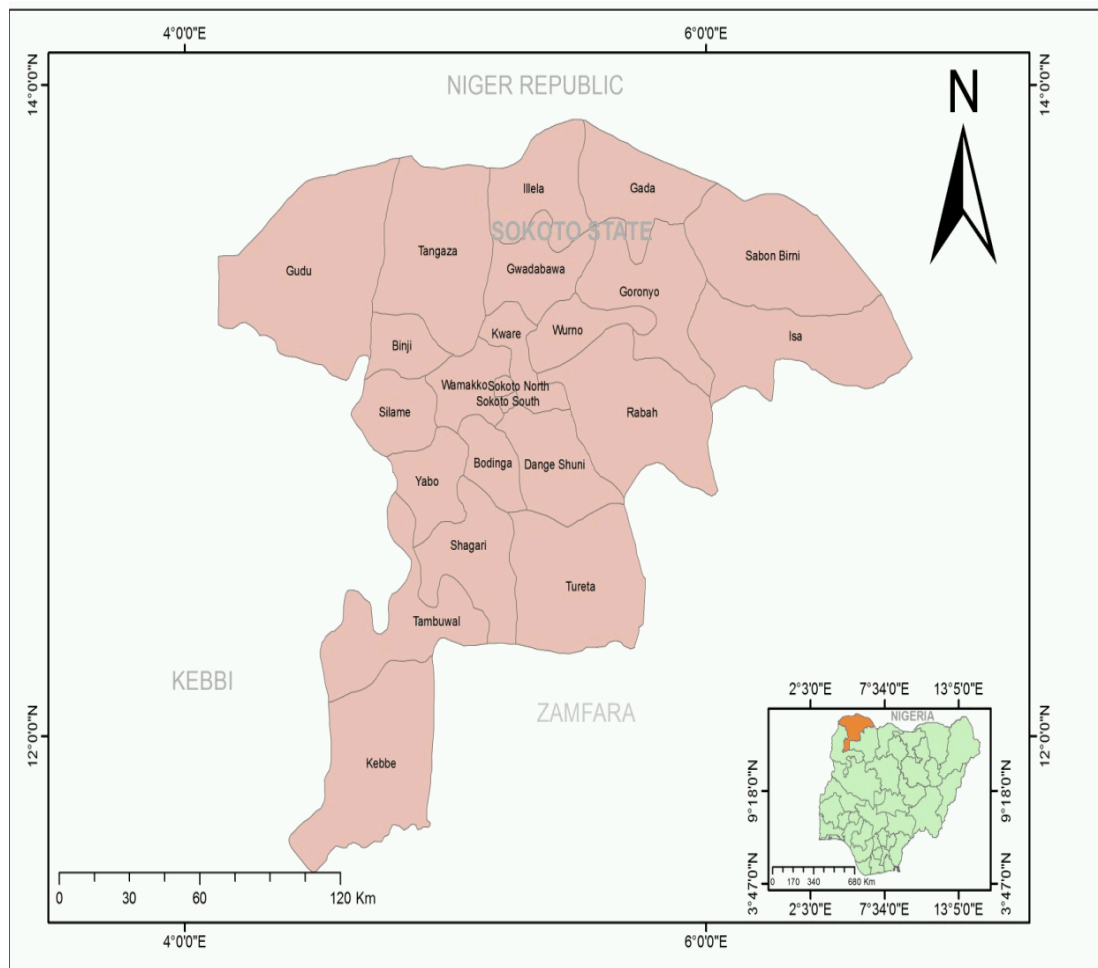


Figure 1. Map of Sokoto State

Source: Adapted from Eniolorunda and Dankani (2012)

## Islamic Position on Climate Change and the Environment

There were a lot of consensus amongst Islamic scholars on the issue of climate change. Several verses of the Quran speak eloquently on the need for people to cater for the environments they lived in. Environmental sustainability is one of the contemporary discourses that has abundant values embedded in the Quran and Sunnah teachings. The environment is created by Allah SWT in perfect and balanced condition. Every element in the environment is created to operate in an integrated manner and plays an important role in maintaining the balance and function of nature that allows human to live healthily and prosperously (Abedi-Sarvestani & Shahvali, 2008).

Some of the Quranic verses that dwells on climate change and environmental sustainability are as follows:

- i. **Incorporating Trusteeship:** The Quran clearly stated that the wealth of the universe is a common resource for man to use for his livelihood and wellbeing but the use should not be harmful to the environment. Man is expected to preserve and conserve resources (Din, 2010; Fakhry, 1994). God Almighty stated in Quran Chapter 6 verse 95 that....

*“Do no mischief on the earth, after it hath been set in order, but call on Him with fear and longing (in your hearts); for the mercy of Allah is (always) near to those who do good.” Quran 6.95*

By implication of the verse above, God almighty has entrusted humans to assume the role of Vicegerent and act as his trustee on earth. As trustee one is not expected to pollute the environment. Protecting natural entities from misuse is thus a religious obligation upon every Muslim in addition to other qualities of altruism, generosity, mutual understanding and cooperation on good. In other words, man is duty bound to be moderate in the use of natural resources and ensure the protection of others vested interest (Muyibi *et al*, 2010).

- ii. **Sustaining the balance of the natural world:** The Quran made it vividly clear that all things in the universe are created for a purpose and measure both qualitatively and quantitatively (Spahic, 2009). Verses from the Holy Quran on sustaining universal balance are stated below:

*“Verily, We have created all things in proportion and measure (qadar)” Quran 54:49*

*“He has created everything and has measured it exactly according to its due measurements (faqaddarahu taqdiran),” Quran 25:2*

*” Glorify the Name of your Lord, the Most High. Who has created (everything), and then proportioned it. And Who has measured (qaddara) and then guided.” Quran 87-1-3*

*"The sun and the moon follow courses (exactly) computed; and the herbs and the trees -both (alike) prostrate in adoration. And the Firmament has He raised high, and He has set up the balance (of justice) in order that ye may not transgress (due) balance" Quran 55:5-8*

*But squander not (your wealth) in the manner of a spendthrift. \* Verily spendthrifts are brothers of the Evil Ones; and the Evil One is to his Lord (himself) ungrateful." Quran 17:26, 27*

*"It is He Who produceth gardens, with trellises and without, and dates, and tilth with produce of all kinds, and olives and pomegranates, similar (in kind) and different (in variety): eat of their fruit in their season, but render the dues that are proper on the day that the harvest is gathered. But waste not by excess: for Allah loveth not the wasters." 6:141*

Many Quranic verses show the values of unity, balance, order and harmony in the natural setting of this universe. It can equally be deduced from the verses of the Quran that Allah SWT instructs mankind to observe the interdependence and connections of each environmental components so as to keep the balance of the original ecosystem's functioning. This indicates that all parts of the natural world with its enormous diversity have a value to each other and to the total global system over and above their value to mankind (Kamali, 2010).

**iii. Teachings of the Holy Prophet Mohammed (Hadith and Sunnah):** Prophetic traditions shows that Prophet Mohammed (S.A.W.) invites and encourage his members to spread the tree and reclaim desert land.

Allah's Apostle said:

*"There is none amongst the Muslims who plants a tree or sow's seeds, and then a bird, or a person or an animal eats from it, but is regarded as a charitable gift for him." Sahih Bukhari (See Ibn Kathir, vol. 4, 227)*

It's recorded too in the books of Sunnah, that the prophet inhibited extravagance in using water even when on the side of a river.

In a nutshell it can be argued that Islamic perspective of protecting the environment revolves around the following points

- i. Respecting nature.
- ii. Keeping the natural resources from wasting and misuse.
- iii. Increasing the amount of Trees.
- iv. Increasing the Suitable Lands for Agriculture through Encouraging Reclaiming Dead Lands.

## Materials and Methods

Data for this study was collected via primary and secondary sources. Primary data was obtained via administration of structured questionnaire while secondary data was obtained from published materials and documents. Respondents for the study were selected purposively. The desired respondents for the study were Islamic scholars comprising of preachers, teachers and Imams. Scholars who are in close relationship with the populace and also capable of influencing or molding the opinion of adherent of Islamic faith. Snowballing technique was also employed. Here one scholar will be asked to name other scholars who could contribute to the study and in these way a total of one hundred and twenty five respondents were obtained (Table 1).

**Table 1. Categories of Islamic Scholars**

<b>Socio-Economic Characteristics</b>	<b>Frequency</b>	<b>%</b>
Preachers	34	27
Teachers	53	42
Imams	38	31
	<b>125</b>	<b>100</b>

*Source: Author's Fieldwork, 2017*

Data was analyzed using descriptive statistics comprising of tables showing frequencies and percentages.

## Result of the Findings

Information in Table 2 on the socio-economic characteristics of the respondents reveals that majority of the Islamic scholars (54%) are above the age of forty years. Those within the age range of 30-40 and 20-30 years accounts for 25% and 21% respectively. Males are the predominant respondents with 95% and 5% are females. The findings of the study reveals that respondents with Islamic educational background accounts for 71% while the remaining 29% have western educational background. It is a common phenomenon in the Northern part of the country for natives/indigenes to acquire the two forms of education. In fact, it is mandatory for children to go to Islamic schools whether they combine it with western education or not. Islamic education is viewed as necessary means of relating with God without which one's worship can be put to doubt.

**Table 2 Socio-economic Characteristics of Respondents**

Socio-Economic Characteristics	Frequency	%
<b>Age</b>		
20-30 Years	26	21
30-40 Years	31	25
Above 40 Years	68	54
<b>Sex</b>		
Male	119	95
Female	06	05
<b>Major Educational</b>		
Islamic	89	71
Western	36	29
Total	125	100

Source: Author's Fieldwork, 2017

Findings of the study in Table 3 on climate change awareness shows that 83% of the respondents claimed to be aware of global climatic change while 17% claimed they do not. The study further reveals with respect to those who claimed to be aware of climate change that 37% of the respondents got to know about climate change in schools, 21% and 19% through electronic/print media and the internet respectively. 9% claimed they got to know about climate change through seminars and community meetings.

**Table 3 Climate Change Awareness**

Response	Frequency	%
Yes	104	83
No	21	17
<b>Total</b>	<b>125</b>	<b>100</b>

Source: Author's Fieldwork, 2017

The result in Table 4 on the respondent's perception of climate change reveals that 87% stated that climate change is a reality and its manifestations are glaringly clear while 13% claimed it is myth, a grand design to make less developed countries to continue to rely heavily on richer nations on issues of leadership and ways to exploit and manage naturally endowed resources. It is important to note that among those respondents who believed in the reality of climate change, majority stated that Islam for time immemorial has encourage tree planting as an act of charity (*Sadaqatul Jariyyah*) and also the religion has also frown against any form of corruption warning that there will be dire consequence if people refused to lead a pious lifestyle and this includes catering for the environment.

**Table 4 Perception of Climate Change**

Response	Frequency	%
Reality	109	87
Myth	16	13
<b>Total</b>		<b>100</b>

Source: Author’s Fieldwork, 2015

Respondent’s perception of the major cause of climate change in Table 5 shows that majority (42%) believed it is an act of God, 22% and 21% attributed it to deforestation and emission of gases (as a result of man’s anthropogenic processes) respectively while 15% claimed they have no idea. Going by this finding, it is clear that majority of the respondents attributed climate change to an act of God almighty. According to them God has destined what will happen when people go contrary to his directives and climate change is one of the manifestations of going contrary to God’s injunction.

**Table 5 Perception about the major cause Climate Change**

Response	Frequency	%
Deforestation	28	22
Emission of Gases	26	21
Act of God	52	42
No Idea	19	15
<b>Total</b>		<b>100</b>

Source: Author’s Fieldwork, 2015

Figure 2 reveals the role Islamic scholars in the study area played in creating awareness on climate change and its mitigation. From the figure 2, 62% of the respondents claimed they play no role at all. Other scholars 27% claimed that they engage in preaching about climate change and its mitigations and 8% stated they often participate in tree planting as a means of encouraging other members of the community to emulate them. Only 3% claimed they engaged in talking at seminars and community meetings.

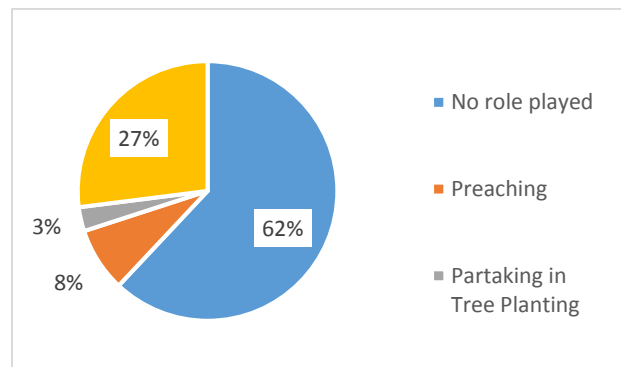


Fig. 2. Role of Islamic scholars in creating awareness on Climate change and its Mitigation

Source: Author’s Fieldwork, 2017



Table 6 shows that respondent's experiences hindrance and constraints in an attempt to educate people on climate change and its mitigation measures. 42% of the respondents stated that they were never involved or encouraged by Government and Non-Government Organizations on climate change related issues. 19% claimed that engaging in such activities on creating awareness and mitigation requires financial backing which they lacked while 14% of the respondents stated that they do not have access to electronic media and that hinders them from engaging actively. 25% of the respondents stated that they did not want to partake because of apathy (lack of interest).

**Table 6 Constraints / Hindrance Experienced by Respondents**

Response	Frequency	%
Non Involvement by Govt/NGOS	53	42
Financial Constraint	24	19
Inaccessibility to Electronic Media	17	14
Apathy	31	25
<b>Total</b>		<b>100</b>

Source: Author's Fieldwork, 2017

## Conclusion

The study has examined the perception and role of religious leaders in climate change awareness and mitigation in Sokoto State. The findings of the study reveals that the enormous threat posed by climate change particularly to sub-Saharan Africa (a region considered to be more vulnerable to effect of climate change due to its high dependence on rain-fed agriculture, widespread poverty and weak mitigation and response capacity) requires drastic measures to raise awareness on the phenomenon and how it can be mitigated. The findings of the study reveals that religion played a very prominent role in shaping peoples beliefs, ideas and attitudes and it can equally enhance the participation of people particularly in upholding the tenets of mitigating climate as well as inculcating good values and practices of environmental management. It is therefore the contention of this study that to achieve efficient climate change awareness and mitigation not only in Sokoto but the entire Northern regions of Nigeria there is a need to involve religious leaders and scholars. A simple message from the religious leaders will command so much acceptance and compliance by the citizens. It is important to remember that religion is one component of a larger societal picture, and it interacts with economic, political, cultural and media factors in determining people's attitudes towards environmental and climate related issues. Religious values, just as other cultural beliefs, evolve over time and while they may provide a foundation for human-nature relationships, these ideas are shaped by a myriad of factors.

## Recommendations

Based on the findings of the study, the following recommendations are made;

- i. Religious scholars should be involved in any climate change policy initiatives and campaigns

- ii. Access to electronic and printed media should be granted to these religious scholars to sensitized people on the menace of climate change and the religious obligation vested on the people in caring for their environment.
- iii. Climate change studies should be incorporated into educational curriculum of both Islamic and western schools so that students could learn about the climate change phenomenon and how it can be mitigated it in schools

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