



## SECTORAL CREDIT ALLOCATION OF DEPOSIT MONEY BANKS AND POVERTY REDUCTION IN NIGERIA

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### ABSTRACT

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The nature of relationship between deposit money banks loan to certain sector of the economy and its possible effect of reducing poverty rate in Nigeria is controversial and significant. As such, this study set out to examine the extent to which deposit money bank loan and advances to SMEs, agricultural, and manufacturing sectors in Nigeria has helped in reducing poverty rate. To achieve the objective of the study, unit root test, auto regressive distributive lag estimate and causality test were employed. Result shows that deposit money bank loan to SMEs and agricultural sector seem to be inversely related to poverty rate in Nigeria while sectoral allocation to the manufacturing sector is not capable of reducing poverty rate in Nigeria. This inherent relationship between loans to manufacturing sectors and poverty reduction in Nigeria could be attributed to some structural factors cited in the body of the paper. In the light of these findings, this study concluded that (i) Poverty rate in Nigeria is significantly sensitive to deposit money bank credit to agricultural sector; (ii) Within the context of the study, deposit money bank allocation to SMEs has helped in reducing poverty rate in Nigeria to the tune of 1.821 unit. On this premises, it is recommended that bank ordinances and financial institution act should be review to ensure that more credit is allocated to agricultural and SMEs sector as this will help in reducing the ever teaming trend of poverty in Nigeria through the window of job creation.

**Contribution/Originality:** Having subjected our data set to rigorous analysis, it is established within the context of this study that sectoral allocation of deposit money banks loan and advances to small and medium scale enterprises has significantly contributed to economic growth such that poverty trend is being reduce to the tune of 1.82135 unit all things being equal. Further, deposit money bank allocation to the manufacturing sector does not seem to be significant in boosting economic output, as such poverty trends remain unchanged.

### 1. INTRODUCTION

The government is saddle with the responsibility of providing certain social and basic infrastructure to her citizens in order to maintain and accelerate definite level of economic development. Government over the years has been effective in her responsibility by allocating billions of naira to various sectors of the economy to ensure smooth running of the economy. due to the gargantuan level of the government responsibility and duties, certain institution were compelled by the constitution to help share some of the government responsibilities as a way of offering their corporate social responsibility to the public and one of those institution is the deposit money bank. It was cited

within the context of BOFIA that deposit money banks are mandatory to allocate 20% of her total credit to some preferred sector of the economy and those sectors includes among others manufacturing sector, agricultural sector, quarry and mining, small and medium scale enterprises etc. As such, deposit money bank pickup this responsibility to ensure effective running of the economy in support of the government.

The essence of Sectoral distribution of loans to various arms of the economy is to help boost the performance of such sectors toward provision of basic necessities. The effective utilization of this allocation will help in developing and preparing such sectors for international competition and local competency. Meanwhile the end product or the final output of such sectors determines whether it has effectively utilizes her resources or not. Effective utilization of such allocation will result into increase in output level, give room for job creation and thus reduce unemployment and poverty rate accordingly.

Although, the responsiveness of each of this sector in term of performance against the given loan varies as the quantum of fund allocated to those sectors also varies. For instance, report of the [Central Bank of Nigeria Statistical Bulletin \(2017\)](#) shows that manufacturing sector accumulate more of the total deposit money bank allocation between 1981 to 2017 as 2.7 billion was allocated to this sector in 1981 while in 2017, its allocation arose to 2230.7 billion which amount to over 18% of the total allocation. Meanwhile, allocation to agriculture, forestry and fishery industry was 600 million in 1981 and further increase to 503.1 billion in 2017 while allocation to SMEs amount to 79227.4 million in 2017. This shows that a huge sum of money is allocated to these sectors on yearly bases with the intension of enhancing economic development and improving standard of living of the citizens.

Against all odds, the primary purpose of government and institutional allocation of loan and advances to various sector of the economy is to help expedite development process of the nation, increasing the output level of the economy, boosting job creation and thus reduce poverty rate in the economy. Despite all of these effort made by government and various institutions in making the economy grow through job creation, provision of basic social amenities that is capable of promoting the nation's economy, the level of poverty rate in Nigeria is on the glow.

In eliminating the ever teaming poverty and unemployment rate in Nigeria, various effort and measures has been developed by the government and non-governmental organization. Such efforts include the introduction of the National Directorate of Employment (NDE) in 1986, which had the mandate to address the unemployment challenges in the country through skills acquisition training for the youths and the provision of some basic tools and funding for start-ups in small enterprises. Further, the Bankers' committee in 1999 introduced the Small and Medium Enterprises Equity Investment Scheme (SMEEIS) in response to the concern and drive of government to bolster the financing support for SMEs. The scheme required all Banks to set aside 10% of profit after tax for investment in SMEs either as loans or equity or both.

Empirically, [Okogba \(2018\)](#) report shows that poverty misery in Nigeria deepens based on two basic reasons and they includes, one, the growing population of the nation outperform her available resources and second, the amount committed to public amenities expansion is not sufficient as such could not stay afloat the poverty level in the nation. Therefore, the level of hunger, unemployment, power supply, insecurity and criminal bandit is on the increase. Further, [Ifionu et al. \(2018\)](#) assert that development strength of the economy is not intensive enough in stimulating job creation which will further help to reduce poverty rate in Nigeria.

Consequently, the Nigerian bureau of statistics using the harmonized national living standard survey reported that poverty incidence has risen from 69.0% percent in 2010 to 76.29 in 2016. To this end, one begin to wonder why all of these effort put in place by the government and other institutions has proof abortive over the year. Hence, the objective of this study is to investigate the extent to which sectoral allocation by deposit money bank has helped in reducing poverty misery in Nigeria.

## 2. THEORETICAL UNDERPINNING AND REVIEW OF RELATED LITERATURE

### 2.1. Review of Related Literature

In a recent study, Loyce and Willy (2016) examine the effect of government sectoral expenditure on poverty level in Kenya between the periods 1964 to 2010. Study employed unit root test, co-integration test and vector error correction model. Findings reveal that data became stationary in the order of 1(1) integration while there exist one co-integrating equation. The report of the error correction model further shows that government spending on agriculture and health sector in Kenya exhibited a significant and meaningful contribution to the economy by reducing the poverty trend over time while government expenditure on education does not seem to reduce the poverty trend in Kenya as reported within the context of the error correction model result. On this backdrop, study thus conclude and recommend that government should inject more fund into the agricultural sector as it seem to contribute more to economic growth and thereby reduces poverty trend in the nation.

Ogunbiyi and Monogbe (2016) the role of sectoral lending in the economic development process of Nigeria between the period 1981 to 2015 using time series data exploit from the apex bank published bulletin. Study consider sectoral loan to production, commerce, services and other sectors and their various contribution to economic development in Nigeria accordingly. Result of the Cointegration test provide evidence of three co-integrating equation while government expenditure on commercial services exhibited a significant relationship on economic development between the periods under investigation as reported by the result of the multiple regression model. Study thus concludes that sectoral loans and advances to the preferred sector of the economic (production and general sector) has significantly stimulate economic growth while loans and advances allocated to other sectors is relegating economic growth. This result however, corroborate the report of Balago (2014) whose study suggest that increase in government allocation on production and manufacturing is capable of promoting economic growth. As such, the study thus recommend that more credit be allocated to the sector with higher contribution to economic growth in Nigeria.

Ifionu *et al.* (2018) investigated the responsiveness of poverty rate, employment rate and government capital investment on economic development in Nigeria between the periods 1981 to 2015. Finding reveals that all explanatory variables under investigation exhibit a negative co-efficient to economic development in Nigeria except for poverty rate. Poverty rate exhibit a significant P-value of 0.0023 with a corresponding positive coefficient of 0.002829. This suggest that the development strength of the economy is not intensive enough in stimulating job creation which will further help to reduce poverty rate in Nigeria. Employment rate exhibit a significant P-value of 0.0055 with a negative coefficient of -0.07783 which implies the existence of negative and significant relationship between employment rate and economic development in Nigeria. By implication this suggest that for employment rate to respond in a positive manner to economic development, such development must be an intensive one as unemployment rate appear to be a lagged indicator which respond to economic development in a gradual pace. Government capital expenditure exhibited a significant P-value of 0.0000 with a corresponding negative coefficient value of -0.00002 which suggest an inverse relationship between government capital expenditure and economic development in Nigeria. On this note, the responsiveness of the selected macroeconomic variables under investigation to economic development are dynamic and asymmetry. This then calls for normalization and asymptotic distribution of the government policy as it maintain a vast effect on the economy and thus determine the direction of flows on the macro-economic variables and investment strength of the nation.

Ogunbiyi and Monogbe (2017) examine the contributive quadrant of micro finance credit to SME's and deposit money bank credit to SMEs with the intension of determining which of this credits significantly stimulate economic growth in Nigeria. In an attempt to actualize this, Micro Finance Credits to the Small and Medium Scale Enterprises was proxy for micro finance operation while Deposit Money Banks credit to SME's was proxy for conventional operation utilizing the Real Gross Domestic Product of the nation to measure economic growth between the period 1992 to 2015. Study employed error correction model and granger causality test to examine

their direction of causality. Study report that microfinance institution credit to SMEs displayed a significance nexus to the current growth trend in the nation's output showing that the Microfinance credits have actually achieved their expected aim at contributing to economic output. Therefore the study concluded that the micro finance credit significantly contribute to economic growth while deposit money bank credit to SMEs is parasitic to economic growth in the Nigerian context. On this premises, study recommend that the public authorities and relevant monetary institutions should foster the activities of the Microfinance banks and enlarging the purse of the Deposit Money banks towards funding Small and Medium Scale Enterprise activities.

Edward *et al.* (2006) examined the contributive impact of public investment on poverty reduction in sub-Sahara African countries using panel data. The objectives of the paper is to experiment the previous theories, empirics and policy implication of the study. Findings reveals that public funds is more productive in an economy but the effect of this public investment in economic growth promotion in the selected African countries is not proven as the case may be. The responsiveness of poverty to public fund injected into the developing countries could not be justified due to the poor decision making of the leaders in those countries.

Dauda and Makinde (2014) examine the role of financial system development on poverty reduction in Nigeria between the periods 2000 to 2010. Study employed unit root test, co-integration test and vector auto regression model due to the lag of co-integrating equation among employed variables. Study further employed structural analysis and thus conclude that the nexus between financial deepening and poverty is negative and significant. Against all odds, credit to the private sector which is expected to reduce poverty rate in Nigeria exhibit a positive and significant relationship to poverty rate which suggest that credit to the private sector dose not lead to poverty reduction in Nigeria. According to the study, this direct relationship was attributed to the meticulous attitude of the intermediaries in the Nigeria banking industry and their failure to channel fund to the pro-poor in the society. Finally, study concludes that the open door strategy of the government which gives room for foreign investors is capable of promoting the Nigerian citizens. Hence, study recommends that for an economy to accumulate more fund which will help in reducing poverty trends in Nigeria, government should increase her savings capacity as reported by Rosenstein Rodan.

Monogbe *et al.* (2016) examine the inter-nexus between economic output, revenue, unemployment and economic development in Nigeria using time series data sourced from CBN statistical bulletin. Study employed unit root test, co-integration test and granger causality test accordingly. Study report that 1% increase in unemployment rate is capable of downsizing economic development in Nigeria to the tune of 0.06% which suggest that there is an inverse relationship between unemployment and economic development in Nigeria. Study thus concludes that to achieve a sustainable level of economic development in Nigeria, the ever teaming unemployment rate must be dealt with such that it will be reduced to a reasonable extent.

Edom *et al.* (2015) carried out an empirical analysis of SMEs financing and Poverty reduction in Nigeria over the period 1991 to 2010. Using Ordinary Least Squares on time series data found a significant relationship between small and medium enterprises financing and poverty reduction. Oba and Onuoha (2013) studied the role of SMEs in poverty reduction in Nigeria. Their study, covered the period 2001 to 2011 using secondary data and adopted simple linear regression as statistical tool, found that SMEs income which was captured by SMEs contribution to GDP significantly influenced the level of employment and hence poverty reduction.

Ali *et al.* (2014) in a study of the role of SMEs and poverty in Pakistan found a strong and negative impact of SMEs output on poverty in Pakistan. The study covered the period from 1972-2007 and used log-linear auto-regression model using Ordinary least squares method. The study adopted the Poverty Head count ratio as proxy for poverty. Agyapong (2010) examined the activities of SMEs in Ghana with respect to improvements in income levels and poverty reduction. The investigations affirmed the significant impact of SMEs in Ghana in job creation, income generation-through import and export, distribution of goods, human resource development and innovative entrepreneurship.

Kadiri (2012) studied the contribution of SMEs to employment generation in Nigeria using Binomial logistic regression analysis and found that the sector was unable to achieve this goal due to its inability to secure adequate finance for the sector. It also identified the need to include SMEs in the formal sector to enhance their ability to access funds. This is in addition to need to provide much needed infrastructure. Abor and Quartey (2010) evaluated SME development in Ghana and South Africa. Their findings indicate that 92% of businesses in Ghana are SMEs, providing 85% of jobs in the manufacturing sector and contributing 70% of GDP. Whereas in South Africa, 91% of formal businesses are SMEs and contribute 52 – 57 % of GDP and are responsible for 61% of employment.

### 3. METHOD OF DATA ANALYSIS

#### 3.1. Variables and Data Description

The need to examine the extent to which deposit money bank loan and advances to the preferred sector of the economy promote or reduce poverty misery in Nigeria necessitated the need for this study. In order to actualize the objective of the study, we employ econometric investigative research design in order to ascertain the direction of relationship between the variables under investigation. Data were sourced from central bank of Nigeria bulletin between the periods 1981 to 2017 (thirty seven years). Poverty rate was proxies using the National poverty headcount ratio is the percentage of the population living below the national poverty lines. National estimates are based on population-weighted subgroup estimates from household surveys Sourced from the World Bank, Global Poverty Working Group while sectoral allocation of loan and advances from the deposit money bank to manufacturing sector, agricultural sector and small and medium scale enterprises were considered accordingly.

#### 3.2. Model Specification

In line with the classical linear regression assumption (CLRM) and in consonant with the empirical study of Ifionu *et al.* (2018) we formulate our model in the functional form with a slight modification thus;

$$POVT = f(SCAM, SCAA, SCSME) \tag{1}$$

Where;

POVT = Poverty Rate

SCM = Sectoral distribution of commercial loan to Manufacturing sector

SCA = Sectoral distribution of commercial loan to Agricultural sector

SCSME = Sectoral distribution of commercial loan to small and medium scale Enterprises

For the purpose of econometrics estimation, Equation (1) is further transform to accommodate its intercept, parameter and error term as shown in Equation (2).

$$POVT_t = \alpha_0 + \alpha_1SCM_t + \alpha_2SCA_t + SCSME_t + \mu_t \tag{2}$$

For clarity of purpose, this study adopt the ARDL mechanism and it model is designed below by introducing the lag value of the explained variable thus.

$$POVT_t = a_0 + \sum_{i=1}^p a_1 POVT_{t-i} + \sum_{i=1}^p a_2SCM_{t-i} + \sum_{i=1}^p a_3SCA_{t-i} + \sum_{i=1}^p a_4SCSME_{t-i} + \mu_t \tag{3}$$

Where;

$\alpha_0$  = Constant term

$\alpha_1$ - $\alpha_3$  = coefficients for each of the explanatory variables above

$\mu_t$  = Error Term

#### 3.3. Specification of Tools for Analysis

**Unit root test:** This test fulfil one of the first order condition when using time series data for empirical investigation. Following the assumption that time series data are prone to stationary problems, Gujarati and Porter

(2009) advice that time series data should be subjected to stationarity test to avoid having spurious result. As such, we subject our data to stationarity test to avoid having misleading result.

**Autoregressive Distributive Lag:** Autoregressive distributive lag (ARDL) mechanism is use in estimating the dynamism among employed variables. It is basically used under two condition. When N is < 30. i.e when the number of observation or sample size under investigation is below 30 years and secondly, when there is a mixed stationarity response of the time series under investigation. That is, when data set became stationary at order 1(1) and order 1(0), Autoregressive distributive lag (ARDL) mechanism is appropriate. As such, Autoregressive distributive lag (ARDL) mechanism is designed thus.

$$y_t = \beta_0 + \beta_1 t \sum_{i=1}^p \alpha_i y_{t-1} + \beta_2 x_t + \sum_{i=0}^p \beta_3 + \Delta x_{t-1} + \pi t \tag{4}$$

Where  $x_t$  represent the dimension of 1(1) variable which are not stationary  $\beta_1$  represent the matrix which makes autoregressive process stable while  $\pi t$  is the error term Monogbe *et al.* (2017). The ARDL model for this study is incorporated thus;

**Granger Causality Test:** To estimate the extent to which one variable promote, influence or re-inforce another, granger causality test is employed. In this circumstance, the inclusion of the lagged values of each of the study variables will be deemed to have improved the explanation if the coefficient of the lagged variable is significant and vice-versa, according to Maddala (2007). These represented in Equations 3 and 4 below:

$$y_i = \epsilon_0 + \sum_{i=1}^n \epsilon_1 y_{i-1} + \sum_{i=1}^n \epsilon_u X_{i-1} + U_t \tag{5}$$

$$x_i = \delta_0 + \sum_{i=1}^n \delta_1 x_{i-1} + \sum_{i=1}^n \delta_u Y_{i-1} + V_t \tag{6}$$

3.4. Operational Measures

**Poverty Headcount Ratio:** National poverty headcount ratio is the percentage of the population living below the national poverty lines. National estimates are based on population-weighted subgroup estimates from household surveys sourced from the World Bank, Global Poverty Working Group.

**Deposit money bank Loans to Manufacturing Sector:** This is the quantum of loan allocated to the manufacturing sector of the economy mandatory by BOFIA with the intension of promoting economic output of the economy and thus reduce poverty trend in Nigeria. This will be captured as stated in the central bank of Nigeria statistical bulletin and will be converted to rate to maintain uniformity of measurement since poverty data is in rate. As such, we expect a negative and significant relationship between deposit money bank loan to manufacturing sector and poverty rate such that increase in deposit money bank loan to manufacturing sector is expected to reduce poverty rate in Nigeria.

**Deposit money bank Loans to Agricultural Sector:** This is the quantum of credit allocated to the manufacturing sector of the economy by the deposit money bank with the intension of promoting economic output of the economy and thus reduce poverty trend in Nigeria. This will be captured in millions of naira as stated in the central bank of Nigeria statistical bulletin and will be converted to rate to maintain uniformity of measurement.

**Deposit money bank Loans to Small and Medium Scale Enterprises:** This is the quantum of credit allocated to the small and medium scale enterprises by the deposit money bank with the intension of promoting sole proprietorship business and self-employment. This will further help in promoting the entrepreneur contribution to economic growth in Nigeria. This will be captured in millions of naira and further converted to rate to maintain uniformity of measurement.

### 3.5. On a Priori

A negative theoretical association is expected between the Sectoral distribution of commercial loan to Manufacturing, entrepreneur and agricultural sector in response to poverty rate such that increase in the quantum of loan and advances allocated to this sector will result into reduction in poverty rate in Nigeria.

$$\alpha_1, \alpha_2, \alpha_3 < 0$$

## 4. DATA PRESENTATION

The data presented below comprises of the raw data set which is in million while the poverty data is in rate. Hence, to ensure uniformity of measurement, we convert all the data set to growth rate. Therefore, SCA, SCM and SCE were converted to growth rate which gives us SCAR, SCMR and SCER. Where; SCA = deposit money bank allocation to agricultural sector in millions of naira, SCM = deposit money bank allocation to Manufacturing sector in millions of naira, SCE = deposit money bank allocation to SMEs in millions of naira, POVTR = Poverty rate, SCAR = deposit money bank allocation to agricultural sector converted to rate, SCMR = deposit money bank allocation to Manufacturing sector converted to rate, SCER = deposit money bank allocation to SMEs converted to rate.

Table-1. Data Presentation.

YEARS	SCA(M'#)	SCM(M'#)	SCE(M'#)	POVTR	SCAR	SCMR	SCER
1992	7.0	15.4	20400.0	42.70	0.5408	0.5003	-0.2420
1993	10.8	23.1	15462.9	48.43	0.6514	0.5068	0.3291
1994	17.8	34.8	20552.5	54.15	0.4235	0.6682	0.5752
1995	25.3	58.1	32374.5	59.88	0.3159	0.2435	0.3066
1996	33.3	72.2	42302.1	65.60	-0.1601	0.1465	-0.0345
1997	27.9	82.8	40844.3	64.20	-0.0272	0.1679	0.0347
1998	27.2	96.7	42260.7	62.80	0.1422	0.1967	0.1080
1999	31.0	115.8	46824.0	61.40	0.3216	0.2206	-0.0487
2000	41.0	141.3	44542.3	60.00	0.3611	0.4642	0.1770
2001	55.8	206.9	52428.4	58.60	0.0717	0.1285	0.5711
2002	59.8	233.5	82368.4	57.20	0.0376	0.2606	0.0948
2003	62.1	294.3	90176.5	55.80	0.0907	0.1285	-0.3903
2004	67.7	332.1	54981.2	54.40	-0.2831	0.0600	-0.0784
2005	48.6	352.0	50672.6	56.83	0.0171	0.2663	-0.4926
2006	49.4	445.8	25713.7	59.27	2.0283	0.0937	0.5984
2007	149.6	487.6	41100.4	61.70	-0.2890	0.9131	-0.6712
2008	106.4	932.8	13512.2	64.13	0.2759	0.0650	0.2112
2009	135.7	993.5	16366.5	66.57	-0.0538	-0.0059	-0.2332
2010	128.4	987.6	12550.3	69.00	0.9875	0.0664	0.2439
2011	255.2	1,053.2	15611.7	53.47	0.2396	0.0144	-0.1120
2012	316.4	1,068.3	13863.5	58.04	0.0864	0.1042	0.1074
2013	343.7	1,179.7	15353.0	62.60	0.3934	0.3965	0.1349
2014	478.9	1,647.5	17424.3	67.16	-0.0236	0.1355	-0.2568
2015	467.6	1,870.6	12949.5	71.73	0.0584	2.6667	-0.0696
2016	494.9	6,859.0	12047.9	76.29	0.0166	-0.6748	5.5760
2017	503.1	2230.7	79227.4		-1	-1	-1

Source: Extraction from CBN Statistical bulletin and World Bank data base.

We start this econometrics analytical study by lurching into unit root test using Augmented Dickey Fuller Test thus.

**Table-2.** Presentation of Unit Root Test Result.

Variable	ADF Test statistic	Mackinnon's Critical Value at 1%, 5% & 10%			Order of Integration	Prob.
		1%	5%	10%		
D(POVT )	-5.945772	-3.63940	-2.951125	-2.614300	I(1)	0.0000
D(SCAR)	-8.272335	-3.737853	-2.991878	-2.635542	I(1)	0.0000
D(SCMR)	-4.825578	-3.752946	-2.998064	-2.638752	I(0)	0.0009
D(SCER)	-9.678165	-3.737853	-2.991878	-2.635545	I(1)	0.0000

Source: Extraction from E-views 9 output.

From Table 2 presented above, four variables were under investigation and they all report absence of unit root at levels. Further investigation shows that data became stationary at first differencing in the order of 1(1) and 1(0) integration. This thus justifies the condition for further econometrics analysis. Hence, we proceed to test for dynamism among the study variables using the auto regressive distributive lag.

**Table-3.** Presentation of ARDL.

Dependent Variable: POVT  
Method: ARDL  
Date: 01/29/19 Time: 13:28  
Sample (adjusted): 1993 2016  
Included observations: 24 after adjustments  
Maximum dependent lags: 1 (Automatic selection)  
Model selection method: Akaike info criterion (AIC)  
Dynamic regressors (1 lag, automatic): SCAR SCMR SCER  
Fixed regressors: C  
Number of models evaluated: 8  
Selected Model: ARDL(1, 0, 0, 0)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
POVT(-1)	0.634356	0.138330	4.585809	0.0002
SCAR	-0.198775	1.812433	-0.109673	0.9138
SCMR	2.587614	1.568444	1.649797	0.1154
SCER	-1.821352	3.815560	-0.477348	0.0378
C	22.03239	8.345925	2.639898	0.0161
R-squared	0.660986	Mean dependent var		61.21889
Adjusted R-squared	0.589614	S.D. dependent var		6.298076
S.E. of regression	4.034632	Akaike info criterion		5.810759
Sum squared resid	309.2869	Schwarz criterion		6.056187
Log likelihood	-64.72911	Hannan-Quinn criter.		5.875871
F-statistic	9.261213	Durbin-Watson stat		1.842617
Prob(F-statistic)	0.000251			

Source: Extraction from E-view.

The report above shows that our model is free from autocorrelation as it possess a Durbin Watson statistics with a high coefficient of 1.842617 together with a significant F-statistics (0.000251) which shows the overall significances of the model. The adjusted R<sup>2</sup> rose to 0.589614 which suggest that the variation in poverty rate in Nigeria is jointly accounted for by sectoral allocation of deposit money bank loan to agriculture, manufacturing and SMEs to the tune of 59%. The auto regressive distributive lag results provide substantial evidence to confirm that in the long run, dynamism in all the sectoral distribution to the selected preferred sectors (manufacturing, agricultural and entrepreneur sector) accounted for about 63.4 percent of the changes in poverty rate in Nigeria. The coefficient of poverty rate stood at 0.63435 approximately 63 percent, thus indicating the pace at which poverty rate changes given the sectoral loan and advances allocated to various sectors. Finally, deposit money bank allocation to agriculture and SMEs seem to be negative and significant in reducing poverty rate in Nigeria. This can be evidence from their negative coefficient of -0.19877 and -1.82135 alongside a significant P-value of 0.0378. The result is inline with our apriori expectation and thus suggest that further allocation of funds to small and medium scale enterprises and agricultural sector is capable of reducing poverty rate in Nigeria to the tune of



1.82135 unit all thing being equal. The economic implication of this is that injection of more fund into the agricultural and SMEs sector will lead to job creation and thus help in reducing poverty rate through the window of increased productivity output. This report thus is in consonant with Okun (1962) as cited in Monogbe *et al.* (2016) whose study suggest the existence of positive relationship between economic output and job creation such that increase in employment rate will haphazardly result into increase in economic output level and thus reduce poverty rate.

**Table-4. Presentation of Bound Test Result.**

ARDL Bounds Test  
 Date: 01/29/19 Time: 14:23  
 Sample: 1993 2016  
 Included observations: 24  
 Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	2.136688	3
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Source: Extraction from E-view.

Bound co-integration test is employed to examine the extent to which time series under investigation are co-integrated in the long run. The decision rule here states that, if the F-statistics value is greater than the upper and the lower bound statistics at all levels, we reject the null hypothesis and thus conclude that there is a long run association among employed variables, if otherwise, we do not reject. From the result presented in Table 4, we observed that the F-statistics is lower (2.13668) than the lower and upper bound value at all levels. Hence, we accept the null hypothesis. Therefore we conclude that there exist no long run relationship among the variables under investigation.

**4.1. Diagnostics Test**

The essence of this test is to establish the adequacy and viability of our study model to enable us make conclusion and recommendations.

**Table-5. Presentation of Breusch-Godfrey Serial Correlation Test.**

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.229764	Prob. F(2,17)	0.7971
Obs*R-squared	0.631669	Prob. Chi-Square(2)	0.7292

Source: Extraction from E-views.

To justify the fitness of our model, we employed LM serial correlation test. The result above reveals absent of serial correlation due to the chi square (2) value (0.7292) which is greater than the 5% level of significant. On this premise, we reject the null hypothesis and conclude that our model is fit and free from serial correlation hence, the outcome of this empirical findings is prudent enough for decision making.

**Table-6. Heteroskedasticity Test.**

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.306149	Prob. F(4,19)	0.3033
Obs*R-squared	5.176158	Prob. Chi-Square(4)	0.2697
Scaled explained SS	8.298368	Prob. Chi-Square(4)	0.0812

Source: Extraction from E-views.

Heteroskedasticity test is a diagnostic test that tends to check if the residual of the model is normally distributed or not. The result above shows an absence of heteroskedasticity problems as its Observed  $R^2$  exhibited a coefficient of (0.2697) which is greater than 0.05%. Following this pedigrees, we conclude that there is an existence of homoskedasticity which suggest that our residuals are normally distributed and thereby validating the classical linear regression model assumption (CLRMA).

**Table-7.** Presentation of Granger Causality Test Output.

Pairwise Granger Causality Tests

Date: 01/11/19 Time: 12:00

Sample: 1992 2017

Lags: 1

Null Hypothesis:	Obs	F-Statistic	Prob.
SCAR does not Granger Cause POVT	24	0.92810	0.3463
POVT does not Granger Cause SCAR		0.93992	0.3433
SCMR does not Granger Cause POVT	24	3.56670	0.0728
POVT does not Granger Cause SCMR		0.00110	0.9738
SCER does not Granger Cause POVT	24	0.22610	0.6393
POVT does not Granger Cause SCER		2.11835	0.1603

Source: Extraction from E-views 9 Output.

The results of Pair-Wise Granger Causality test shown in Table 7 above indicate absence of any bi-directional and uni-directional causal relationship among any of the paired variables. This thus suggest that sectoral allocation to the chosen sector of the economy does not causes poverty rate in Nigeria and vice versa.

## 5. DISCUSSION, CONCLUSION AND RECOMMENDATION

The nature of relationship between deposit money banks loans and advances allocation to certain sector of the economy and its possible effect of reducing poverty rate in Nigeria is controversial and significant. Result from this study provide fascinating confirmation that irrespective of the prevailing dynamic evidence established within the context of this study between deposit money bank and job creation, poverty rate have remained inversely sensitive to variations in the sectoral allocation as reported in the auto regressive distribution mechanism.

However, the rationale behind this study is to examine the extent to which deposit money bank loan and advances to SMEs, agricultural, and manufacturing sectors of the economy has helped in reducing poverty rate through the job creation window in Nigeria. Result shows that increase in sectoral allocation to SMEs and agriculture is capable of reducing poverty rate in Nigeria to the tune of 0.035 all things been equal. The result of this study compliment the report of Ibrahim (2015); Ogunbiyi and Monogbe (2017) whose study shows that the quantum of fund allocated to SMEs by deposit money banks is not sufficient to boost economic output. As such, SMEs contribution to economic growth seems to be minimal. In view of this, if other stakeholders compliment the effort of the deposit money bank by allocating more funds to SMEs, more jobs will be created and this will help in evacuating poverty rate in Nigeria to a reasonable level. Further, the causality test shows absence of any bi-directional and uni-directional causal relationship among any of the paired variables. This thus suggest that sectoral allocation to the chosen sector of the economy does not causes poverty rate in Nigeria and vice versa.

Result further shows that sectoral allocation to the manufacturing sector is not capable of reducing poverty rate in Nigeria. This is evidenced from its positive coefficient of 2.36949 and insignificant P-value of 0.1758. This inherent relationship between loans to manufacturing sectors and poverty reduction in Nigeria could be attributed to some structural factors as cited by Momodu and Monogbe (2017). This structural factors cannot be corrected in the short run and there include governmental lassitude towards economic policies, political and economic instabilities, power failure, unfavorable investment atmosphere, insecurity problems among others. Larger percentage of the manufacturing industries are leaving Nigeria due to power supply failure, insecure environment and community saga. This abnormalities are what the government should take care of to ensure effective

production output which will help in attracting foreign investors as this will further result into job creation and poverty reduction in Nigeria.

In the light of this findings, this study concluded that (i) poverty rate in Nigeria is significantly sensitive to deposit money bank loan and advances to agricultural sector as result shows that further increase in allocation to this sector will help in taming the ever terming poverty trend in Nigeria; (ii) within the context of the study, deposit money bank allocation to SMEs has helped in reducing poverty trend in Nigeria to the tune of 2.56 unit. As such, it is recommended that bank ordinances and financial institution act should be review to ensure that more allocation are slated to agricultural and SMEs sector by deposit money bank as this will help in reducing the ever teaming trend of poverty in Nigeria through the window of job creation.

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