

## **Commercial Bank Credit to Small and Medium Scale Enterprises (SMEs) and Unemployment Reduction in Nigeria**

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**Abstract:** Access to bank credit by SMEs has been identified as pivotal in unemployment reduction in developed countries. This has attracted the attention of many scholars in developing countries where unemployment is still unprecedented. In Nigeria, the issue of unemployment is still alarming despite policies and strategies of successive governments to ameliorate the situation through encouraging commercial banks to lend for the growth and development of SMEs. However, it is based on this that the study empirically examined the impact of commercial bank credit to SMEs on unemployment reduction in Nigeria using Vector Error Correction Model (VECM) Approach on the annual data from 1992 to 2014. The Augmented Dickey-Fuller (ADF) unit root test confirms that all the variables have unit root at level but stationary after first difference. The Johansen cointegration test reveals the evidence of cointegration between bank credit to SMEs and unemployment rate in Nigeria while the VECM shows that bank credit to SMEs and personal savings has no impact on unemployment reduction in Nigeria and that the current interest rate is responsible for high unemployment in the country. Based on these finds, the study recommends a regime of single digit interest rate to encourage investment, establishment of specialized financial institution to raise fund and mobilize contributions from prospective SMEs, encouraging SMEs to form partnership and removes stringent measures attached to loans by banks. These will improve SMEs access to credit which will enhance it play vital role in unemployment reduction in Nigeria.

**Keywords:** SMEs, bank-credit, unemployment, interest rate, Nigeria

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### **I. Introduction**

Immediately after independence in 1960, agriculture was the major employer of labour and constituted the bulk of government foreign earnings. The sector's share of GDP stood at 67 percent while the oil sector account for only 0.6 percent. However, with the discovery of oil in commercial quantities in Nigerian, the emphasis shifted to oil sector which today contributed more than 85 percent of the country's foreign exchange earnings (Odularu, 2008). The economy recorded unprecedented balance of trade surplus as a result of oil boom of the 1970s. Driven by this, government adopted industrialization strategies in her quest to industrialize and achieve self-reliant in the economy. To achieve these, Nigeria embarked on import substitution strategies to encourage the growth of capital-intensive large scale industries. These industries depended mostly on imported raw materials, human capital and heavy equipments at the detriment of local value-added capacity building. The importation spree resulted to unfavourable balance of trade that characterized the periods of 1979 to 1985. By early 1980s, most of these enterprises were operating below capacity or at the verge of folding-up. These led to government realization in her third development plan the importance of small and medium scale enterprises (SMEs) in economic growth of the industrialized economies.

Small and medium scale enterprises are crucial to the economic growth and sustainable development of many countries (Ariyo, 2005, Akingunola, 2011, Obasan & Adediran, 2011, Onyeiwu, 2012). It is assumed that it leads to increase in output, reduces poverty and unemployment, and create job at relatively low capital, reduces income inequalities and enhance the acquisition of skills required for future industrialization of any economy (Ariyo, 2005). Most of the developing countries have realized the impact of SMEs in solving macroeconomic challenges such as achieving rapid economic growth, unemployment and poverty reduction. But the role of SMEs in achieving these objectives have been impeded by lack of capital, high cost of borrowing, and the inability to access capital from lending agencies especially commercial banks (Schneider-Berthold, 2002 and Muritala, Awolaja & Bako, 2012). These have resulted to the sudden death or collapse of SMEs in many countries including Nigeria (Mambula, 2002).

In Nigeria, successive governments have taken different policies to encourage the growth of small and medium scale enterprises. Such policies include setting up of Nigerian Industrial Development Bank (NIDB) in 1972, establishment of Rural Banking Initiative in 1977, Nigerian Agricultural Cooperative Bank, National Economic Reconstruction Fund (NERFUND) and Agricultural Credit Guarantee Scheme Fund, Community Banking Scheme in 1991, Family Economic Advancement Programme, People's Bank were established in 1997, and Microfinance Initiative (MFI) set up in 2005. In 2002, Small and Medium Industries Equity

Investment Scheme (SMIEIS) was established for commercial banks in Nigeria to set aside 10 percent of their profit before tax for funding of SMEs in Nigeria (Alawe, 2004).

It is disheartening that despite impressive government policies aimed at promoting the growth of SMEs and the fact that the economy witnessed rapid economic growth which was on average of 7 percent to 6 percent between 2001 and 2014, the issue of unemployment still remain high in the country. The persistent increase in unemployment is attributed to the poor access of SMEs sector to finance. The commercial bank loans to SMEs as a percentage of total credit to private sector has continue to dwindle for over two decades. In 1992, the ratio of SMEs loans to total credit fluctuated from 29.80 percent to 24.85 percent in 2002 and further declined abysmally between 0.13 percent in 2012 and 0.14 percent in 2014 (CBN, 2014). As a result of these, the unemployment rate and poverty rate have been on increase. The level of unemployment increased from 6.4 percent in 1980 to 17.5 percent in 1999 and ballooned to 23.3 percent in 2013 while the incidences of poverty continue to deteriorate. As at 1980, the poverty rate was as low as 27.1 percent but deteriorated to 65.6 in 2001 percent and 71.5 percent in 2013.

Government efforts to ameliorate the prevalence of unemployment through SMEs promotion may have been hampered by resentment across the country. The resentment created high level of insecurity which culminated to dreaded insurgency in North East with its antecedent grounding of economic activities as thousands of people displaced. In the oil reach Niger Delta, Militancy in the South-South, pro-Independence agitation group in South East and the rift between Herdsmen and farmers across the country have displaced and made people to abandon their means of livelihoods in the affected areas. The activities of these groups have created fears, loss of lives, livelihoods and properties, destruction of infrastructure and loss of investors' confidence. These have increased the risk averse of SMEs which makes it further difficult to access bank credit, thus worsening the performance of SMEs and unemployment situation in the country. It is based on these, it becomes imperative to examine the impact of commercial bank lending to SMEs on unemployment reduction in Nigeria.

Although substantial empirical studies have been done on the impact of SMEs lending on economic growth in Nigeria, but little studies have been performed on the impact of SMEs lending on unemployment reduction in Nigeria. However, these studies were not unified on effect of commercial banks credit to SMEs on unemployment rate in Nigeria. It is based on this, the study examine the impact of commercial banks credit on unemployment reduction in Nigeria. The find of this study may be beneficial to policy makers in determination of their policies; it may be useful for future scholarly research and may as well be an addition to the already existing literature.

## **II. Theoretical Review**

### ***2.1 Classical Theory of Unemployment***

The classical theory believes that every economy has full employment and any deviation from this condition automatically adjusts to restore the economy back to full employment (Jhingan, 2007). According to Say (1824) there will never be over production or general unemployment as supply creates its own demand. The theory believed that expansionary monetary policy may result to unemployment due to downward rigidity of money wages. However, increase in money supply will raise the liquidity which will invariably lead to increase in aggregate demand. Rise in aggregate demand will in turn raise the price level and lowers the real wage. The rise in price level and falling real wage enhance the profit of the SMEs. These serve an incentive for SMEs to employ more workers in order to expand output and reduce unemployment.

The theory posited that as the employment generation continue to rise, the total output will as well continue to rise until the economy attain full employment. At full employment, the total output of the economy will be stable which is the function of capital stock, labour and, technology. This shows that the rate of workforce in the economy determine her level of productivity. The classical theory assumes that employment growth rate is exogenous to the output growth rate. However, Keynes (1936) disagrees with the classical in that no economy will ever achieve full employment. He went further to say that supply always exceeds its demand. The theory pointed out that supply of labour (employment) drives the growth process. This implies that at full employment in the economy, there will be many investors in SMEs sector which will invariably increase credit demand of the sector.

### ***2.2 Keynesian Theory of Unemployment***

The theory assumes that effective demand drives employment generation in an economy. The effective demand is determined by aggregate demand and aggregate supply. Keynes assumes that aggregate supply is fixed and that aggregate demand is a function of consumption and investment which determines the level of employment in a country. According to Hussain & Nadol (1997), employment is endogenously determined as well as capital stock and technical progress. However, increase in government expenditure will lead to fall in interest rate which will invariably result to increase in investment. This will stimulate aggregate demand which

has multiplier effect on income, output and employment creation. The implication of Keynesians theory is that increase in expansionary monetary or fiscal policy lowers interest rate which increases the investment demand of SMEs. The increase in investment increases employment and reduces unemployment in the country.

### **III. Empirical Review**

The empirical studies on the impact of bank credit to SMEs on economic growth of Nigeria have revealed that bank lending has significant impact on economic growth of Nigeria (Akingunola, 2011, Hassan & Olaniran, 2011, Duru & Lawal, 2012, Afolabi, 2013, Dada, 2014, and Uremadu, 2014). Bank credit to SMEs has been found to significantly impact on output of the country (Nwosa & Oseni, 2012). SMEs bank credit has significant long run relationship with economic growth in Nigeria (Muritala, Awolaja & Bako, 2012, Imoughele & Ismaila, 2013, and Samson & Abass, 2013) while bank credit, firm's age, turnover, level of literacy, start-up capital and total firm's investments exert positive influence on the growth of SMEs in Ghana (Ahiawode & Adade, 2012). Some studies identified that poor business plan and organization as cause of SMEs inability to secure loans from credit institutions (Alalade, Amusa & Adekunle, 2013, and Oyefuga, Siyanbola, Afolabi, Dada and Egbetokun, 2010). To Onyeiwu (2012), credit to SMEs leads to economic growth in Nigeria. A related study discovered that standard risk management leads to sustainability of SMEs in Lagos State of Nigeria (Yusuf & Dansu, 2013).

In a study of the role of commercial bank loan to SMEs in economic growth in Nigeria, Imafidon & Itoya (2014) used cointegration approach to analyze annual time series data from 1993 to 2012. The study discovered that commercial bank loan does not contribute to Nigerian economic growth. The study attributed poor contribution of SMEs sector to economic growth to the inability of firms to source fund from banks. Similarly, Imoughele & Ismaila (2014) employed cointegration and error correction modelling to analyze the relationship between commercial bank credit and growth of SMEs in Nigeria within the period 1986 to 2012. The study revealed that bank credit to SMEs and public expenditure do not have significant impact on SMEs output. They attributed this to stringent conditions attached to credit facilities and crowd-out effect of public expenditure on the economy. Also, the study revealed that high interest rate adversely impact on output of SMEs in Nigeria.

In a related study Ofoegbu, Akanbi & Joseph (2013) employed Pearsons correlation and Logit regression techniques to analyze the contextual factors that affect the performances of 140 selected SMEs in Nigeria. They identified availability of capital, access to raw material, power supply, access to market and enabling business environment promote the growth of SMEs while government polices and the poor state of the economy were inimical to the growth of SMEs. In the same vein, Bassey, Asinya & Amba (2014) employed Ordinary Least Square techniques to analyze the relationship between bank lending and the growth of SMEs from 1992 to 2011 after Augmented Dickey-Fuller test affirmed that all the series were stationary at level. The study revealed that commercial banks credit and industrial capacity utilization exhibited positive and significant impact on SMEs growth in Nigeria.

In a study of the role of SMEs in economic development in Ekiti State from 2006 to 2013 using Chi-square approach, Yusuf & Dansu (2013) revealed that SMEs have significant impact in reducing poverty and improving standard of living, and employment creation in Ekiti State. They further reported that decline in interest rate increases access to capital which invariably enhances the performance of SMEs in the state. Collaborating with the early study, Owenubiugie & Igbinedion (2015) adopted a survey research design to analyze the impact of finance on the performance of SMEs in Edo State, Nigeria. The study identified poor access to fund due to that stringent measure from financial institutions hinders the growth of SMEs. In a similar study, Safiyyah & Garba (2013) employed descriptive analyses to examine the role of commercial banks in enhancing the performance of SMEs in Nigeria from 1980 to 2009. The study found that commercial bank credit to SMEs declined due to the abolition of mandatory bank's credit allocations to the sector. In recognition of the importance of financial options available to SMEs, Gbandi & Amisah (2014) maintained that funding of SMEs is crucial for sustainable growth and development of Nigerian economy.

However, few studies have been conducted on the impact of bank credit on unemployment and poverty reduction in Nigeria. For instance, Olawale (2014) in his study of importance of SMEs in alleviation of the challenges of development in South Africa reveals the improvement on the SMEs capacity and opportunities but still below international standard. The study maintained that the rate at which the old firms leave the business is much more than the rate of setting up the business, this is mostly associated to net loss that is prone to the business. These have undermined the role of SMEs in alleviating the challenges of development in the country.

In a study of how SMEs reduce poverty in North Western Nigeria using t-test analysis on both primary and secondary data with a sample of four hundred SMEs selected from Sokoto and Zamfara states Abubakar & Yahya (2013) sought to identify the main features and the manner of operations of SMEs in these states. The study discovers that large firms employ more people than the SMEs. This result is not in line with the postulation that SMEs is pivotal to employment creation. Analyzing the sectoral assessment of the relevance of

SMEs in employment creation in Nigeria using binomial logistic analysis, Ismaila (2012) discovered that SMEs could not effectively help in unemployment reduction due to over reliance on informal credit as a source of business finance.

In a related study of SMEs, job creation and poverty reduction in Nigeria, Aremu & Adeyemi (2011) revealed that the multiplier effect of SMEs enable it to act as a catalyst for economic growth. The study affirmed that SMEs led to employment generation and creation of wealth which invariably resulted to equitable income distribution and poverty reduction. Furthermore, the study concluded that poor policy monitoring and coordination were the cause of failure of previous intervention programmes of government towards enhancing SMEs in Nigeria. Also Safiryu & Njogo (2012) studied entrepreneurial skill, poverty reduction and improvement of standard of living in Nigeria using simple percentage and Chi-square method on data obtained through questionnaires and interviews. The study found that SMEs are responsible for employment creation in Nigeria

To find out the influence of SMEs in job creation in Nigeria with reference to Lagos state using sample t-test regression, Tijani, Oyeniyi & Ogunyomi (2012) relied on the primary data obtained through questionnaire administered to thirty seven respondents. The study found that SME creates employment opportunities and that it does not improve economic growth in Nigeria. In a similar study in Borno state of Nigeria, Hudson, Andrew & Ibrahim (1997) used statistical tools such as Pearson correlation test on data generated through questionnaire. The study reveals that SMEs are vital to employment creation but the employment generated is of low quality when compared to large firms in Borno state. The study further stated that SMEs characteristics do not impact on the quality of job created in Borno State.

However, Edom, Inah & Emori (2015) employed OLS method to analyze the effect of SMEs lending in reducing poverty in Nigeria between the periods of 1991 and 2010. The results showed that finance to SMEs reduces poverty rate in Nigeria while the level of unemployment has a negative consequence on poverty level in the country. Using a similar technique, Oba & Onuoha (2013) analyze the employment generation capacity of SMEs in reducing poverty in Nigeria using simple OLS techniques on a secondary data. The result showed that SMEs through its job creation capacity reduces the level of poverty in the country. It further posited that availability of funds and government interventionist policies are not responsible to the growth of SMEs in Nigeria.

Despite the enormous studies on SMEs in Nigeria, there is still dearth of empirical studies on the impact of commercial bank credit to SMEs on unemployment reduction in Nigeria. Most of the empirical studies such as Akingunola (2011), Hassan & Olaniran (2011), Onyeiwu (2011), Duru & Lawal (2012), Tijani, Oyeniyi & Ogunyomi (2012), Muritala, Awolaja & Bako (2012), Nwosa & Oseni (2012), Afolabi (2013), Imoughele & Ismaila (2013), Samson & Abass (2013), and Dada (2014) focused on the impact of SMEs finance on economic growth in Nigeria without reference to its significant role in unemployment and poverty reduction in Nigeria.

Most of the studies on the impact of SMEs credit on unemployment and poverty reduction were qualitative in nature and may have been influenced or manipulated since the studies relied mainly on primary data generated from respondents. For instance, see Ismaila (2012), Safiryu & Njogo (2012), Tijani, Oyeniyi & Ogunyomi (2012), Abubakar & Yahya (2013), and Hudson, Andrew & Ibrahim (2014). However, Aremu & Adeyemi (2011) employed content analysis while Edom, Inah & Emori (2015) used simple ordinary least square techniques without considering the stationarity of the variables and endogeneity of the production process. Such studies may have committed spurious regressions and simultaneity errors. But, this study is quite different from the previous studies in that it will depart completely from the qualitative techniques, consider the stationarity of the employed variables to avoid spurious regression and adopt vector error correction mechanism to take care of endogeneity of the production process.

## **IV. Methodology**

### **4.1 Model Specification**

Deriving from the classical theory of employment, the model expressed the functional relationship between unemployment and commercial bank lending to SMEs as

$$UMP = f(SML, INT, SVN) \quad (1)$$

The equation 1 above is specified in its linear form as

$$UMP_t = b_0 + b_1SML_t + b_2INT_t + b_3SVN_t + e_t \quad (2)$$

Where UMP is unemployment rate measured as percentage of number of unemployed to total labour force, SMI is commercial bank credit to SMEs as a percentage of total bank credit to private sector, INT is the prime interest rate, SVN is personal savings measured as total private savings as the ratio of GDP at current basic prices and  $e_t$  is the error term at t period. The data range from 1992 to 2014. The choice of this period is motivated by data availability and consistency. The study relied only on secondary data obtained from

publications of National Bureau of Statistics, 2001, 2010 and 2014. Also data were sourced from the Central Bank of Nigeria Statistical Bulletin 2014.

#### 4.2 Estimation Procedures

##### 4.2.1 Unit Root Test

The study first conducts the test of presence of unit root using Augmented Dickey-Fuller unit test to avoid the problems of spurious analysis. To avoid the problem of autocorrelation among the residuals, the ADF included the lagged values of the dependent variable as explanatory variable. The ADF is specified as:

$$\Delta Y_t = \alpha + \beta_t + \delta Y_{t-1} + \alpha_i \sum_{i=1}^m \Delta Y_{t-i} + \epsilon_t \quad (3)$$

Where  $\Delta$  is the first difference operator,  $Y$  represent the series,  $t$  is the trend while  $\epsilon$  is the white noise error term. If the  $\square = 0$  or much less in negative than the critical value, then accept the null hypothesis and conclude that the series stationary but if the revise is the case, then reject the null hypothesis and conclude that the series is non-stationary or has unit root.

##### 4.2.2 Co-Integration Test

This test becomes necessary when the variables are non-stationary and integrated of the same order. To determine the presence of cointegration within the model, the study uses Johansen-Juselius (JJ) cointegration. If cointegration exists among the variables, the VECM will be more appropriate for the analysis but if not it becomes necessary to employ unrestricted VAR techniques. The JJ trace and maximum likelihood test is specified as:

$$\lambda_{max} = \sum_{i=r+1}^n \ln(1 - \lambda_i) \quad (4)$$

$$\Lambda_{max} = -T \ln(1 - \lambda_{r+1}) \quad (5)$$

Where  $\lambda_{trace}$  and  $\lambda_{max}$  are trace statistic and eigen-max statistic respectively,  $\lambda_i$  represent eigen-values while  $T$  stand for sample size. The  $r = 0$  of no cointegration is accept if the trace or maximum eigenvalue statistics are less than the critical value at 5 percent level of significance.

##### 4.2.3 Vector Error Correction Model

The study employs VECM since the variables are cointegrated. The choice of this method is not only motivated by the fact that the variables are cointegrated but also because it considers the endogeneity of the production function (Uwazie, Igwemma & Nnabu, 2015). If the series are non-stationary and the linear combination of the series is stationary, it will become necessary to employ vector error correction techniques (Granger & Newbold, 1974). The error correction term (ECT) is a residual lagged for one period derived from cointegration equation which measures the speed of adjustment from short run to long run equilibrium relationship. Most of the previous studies on the impact of bank lending on unemployment reduction in Nigeria either applied OLS or used qualitative approach. These studies which failed to consider the endogeneity of the time series may have committed specification error. To avoid this problem, this study adopted and specified VECM as:

$$\Delta UNP_t = \alpha_0 + \sum_{i=1}^m \beta_i \Delta UNP_{t-i} + \sum_{i=1}^m \delta_i \Delta SML_{t-i} + \sum_{i=1}^m \gamma_i \Delta INT_{t-i} + \sum_{i=1}^m \vartheta_i \Delta SVN_{t-i} + \theta_1 ECT_{t-1} + \epsilon_t \quad (6)$$

Where UNP is unemployment rate, SML is the commercial bank lending to SMEs, INT is the interest rate, and SVN is the personal savings.  $\Delta$  is the first difference operator; ECT is the error correction terms, which measures the speed at which short run disequilibrium adjust to the long run equilibrium. The  $m$  is the lag length.

## V. Result Presentation

### 5.1 Unit Root Test Results

Before analysing the impact of commercial bank credit on unemployment reduction in Nigeria, the study first conducted the test of unit root on all the series employed to avoid the issue of spurious analysis. The Augmented Dickey-Fuller (ADF) unit root test is used to test the stationarity of the individual variables. Table 1 below shows the results of the ADF unit root test.

**Table 1:** Augmented Dickey-Fuller Unit Root Test Results

Variable	Level	Lag length	5% Critical Value	1st Diff	Lag length	5% Critical Value	Remarks
SML	-0.833136	1	-3.632896	-6.433403*	1	-3.644963	I(1)

UNP	-2.547398	1	-3.632896	-5.968148*	1	-3.644963	I(1)
INT	-3.578578	1	-3.690814	-5.285638*	1	-3.658446	I(1)
SVN	-2.285553	1	-3.633963	-3.678672*	1	-3.644963	I(1)

Note: \* indicates significant at 5 percent significant level

Author’s Calculation, 2015, using Eview 7.0

From the table 1 above, the ADF statistics at level are less in negative than their respective critical values. But at first difference, the ADF statistics are greater in negative than their critical values. Therefore, the study rejects the null hypothesis and concluded that all the variables are non-stationary at levels but tends to be stationary after first difference. This shows that all the variables are integrated to order one, I(1).

**5.2 Cointegration Test Results**

Having indicated that all the series are integrated to order one, it becomes imperative to conduct cointegration test using Johansen Cointegration test. The results of the Johansen cointegration trace and maximum tests are presented in the table 2a and 2b below respectively.

**Table 2a: Unrestricted Cointegration Rank Test (Trace) Results**

Hypothesizes no of CE(s)	Eigenvalue	Trace Statistic	0.05Critical Value	Prob**
None*	0.817280	52.75821	47.85613	0.0161
At most 1	0.495581	17.06237	29.79707	0.655
At most 2	0.105719	2.691077	15.49471	0.9791
At most 3	0.016277	0.344639	3.841466	0.5572

Trace test indicates 1 cointegrating eqn (s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

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

Source: Author’s Calculation, 2015, using Eview 7.

**2b Unrestricted Cointegration Rank Test (Maximum Eigenvalue) Results**

Hypothesizes no of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05Critical Value	Prob**
None*	0.817280	35.69584	27.58434	0.0037
At most 1	0.495581	14.37130	21.13162	0.3353
At most 2	0.105719	2.346438	14.26460	0.9805
At most 3	0.016277	0.344639	3.841466	0.5572

Max-eigenvalue test indicates 1 cointegrating eqn (s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

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

Source: Author’s Calculation, 2015, using Eview 7.0

From the Tables above, since the trace statistic of 52.75821 is greater than the critical value of 47.85613 (see Table 2a) and maximum eigenvalue statistic of 35.69584 is also greater than critical value of 27.58434 (see Table 2b) when CE is none, the study rejects the null hypothesis of no cointegration and concluded that cointegration exist between commercial bank credit to SMEs and unemployment in Nigeria. But, the null hypothesis is rejected when number of CE are at most 1 to 3. The significance of the CE at none in both trace and maximum eigenvalue tests depict one (1) cointegrating equation showing the evidence of a long run relationship between SMEs, interest rate, savings and unemployment rate in Nigeria.

**5.3 Error Correction Model Results**

The null hypothesis of the study is tested and analysed using error correction model (VECM). the hypothesis is rejected if the p-value is less than 0.05 and accept if revise is the case. The results are presented a linear for as

$$\Delta UNP_t = 1.8653 - 0.5846\Delta UNP_{t-1} - 0.1952\Delta SML_{t-1} + 0.5835\Delta INT_{t-1} - 0.2056\Delta SVN_{t-1} + 0.0607ECT_{t-1} + e_t$$

Std. E	0.7655	0.2123	0.3685	0.2461	0.2060	0.0266
t-stat.	2.4368	-2.2754	-0.5297	2.3707	-0.9804	2.2829
p-value	0.0278	0.0148	0.6041	0.0316	0.3341	0.0374
R <sup>2</sup>	0.4594	DW	2.0484	F	2.5498	

The results revealed that lagged unemployment rate, interest rate and ECT are statistically significant while bank credit to SMEs and savings do not impact significant impact on unemployment reduction in Nigeria. The

R-square of 0.4594 explains that 45.94 percent variation in unemployment rate is caused by the explanatory variables. This does not show a good fit and the Durbin-Watson of 2.0480 shows that there is no presence of serial autocorrelation among the residuals.

## **VI. Discussion**

From the results of the study presented in a linear form above, it revealed that the lagged unemployment rate has significant impact on current level of unemployment rate in Nigeria. The significance of the lagged unemployment rate is supported by its p-value of 0.0148 which is less than 0.05. The bank credit to SMEs has the p-value of 0.6041 which revealed that SMEs credit has insignificant impact on unemployment reduction in Nigeria. The negativity of the coefficient of SML is in conformity to the a priori expectation. However, SMEs credit has the coefficient of 0.1952 which revealed that a unit increase in bank lending to SMEs will result to 19.52 percent reduction in unemployment rate in Nigeria, though statistically insignificant. The insignificance of the coefficient of bank credits to SMEs has not been adequate to effectively spark-off unemployment reduction in the country. This poor performance of SMEs in reducing unemployment might be attributable to the unwillingness of banks to grant credit to SMEs due to their inherent problems. Banks normally charged high interest rate and demand for collaterals before loans are offered to SMEs and these have drastically reduced demand for bank credit thus affecting the performance of SMEs. This finding is in line with the studies such as Ismaila (2012) and Abubakar & Yahya (2013) who maintained that SMEs do not play significant role in reducing unemployment in Nigeria while the study disagrees with Aremu & Adeyemi (2011), Safiryu & Njogo (2012), Tijani, Oyeniyi & Ogunyomi (2012), and Hudson, Andrew & Ibrahim (2014) that SMEs reduce unemployment rate in Nigeria.

The interest rate is statistically significant and has the coefficient of 0.583455 with the p-value of 0.0316. The significance the coefficient of interest rate shows that it has significant impact on unemployment rate in Nigeria. However, a unit increase in interest rate increases the cost of borrowing and production. This will discourage investment and unemployment will rise. The positive sign of the coefficient of the interest rate indicated the high cost of borrowing is responsible for high unemployment in the country. The rise in interest rate increases the cost of borrowing and production which invariably discourage SMEs to seek bank loans for investment. This has reduced loan availability to SMEs. The inability of SMEs to secure bank loans has consequential effects on the output of the SMEs. Some of the SMEs who were unable to service their loans or meet up with the high cost of borrowing and production may be forced out of business, thus the increase in unemployment in Nigeria.

The savings has the coefficient of -0.205571 and the p-value of 0.3341 showing that it is statistically insignificant. The insignificance of the parameter reveals that it has not played significant role in unemployment reduction in Nigeria. The inability of SMEs to secure bank credit and mobilised fund through personal savings have made it impossible for SMEs to solve the macroeconomic problems such as unemployment and poverty in the country. The negative sign is an indication that it complies with the a priori expectation.

The ECT with the parameter of 0.067014 and the p-value of 0.0374 is statistically significant. The positivity of the parameter shows the violation of the a priori sign which indicated that bank lending to SMEs is too high to be in equilibrium and that it will start to adjust after 6.7 years for equilibrium to be restored in the long run. After this period, the difficulties faced by SMEs in sourcing bank credit will start to adjust, and SMEs will begin to access adequate fund that will enhance their productivity and growth thereby reducing unemployment rate in the country.

## **VII. Conclusion**

The study centres on the relevance of bank credit to SMEs in reducing unemployment rate in Nigeria. The study maintained that bank credit and personal savings do not have significant impact on unemployment reduction in Nigeria while the current level of interest rate in the economy has resulted to high unemployment rate in the country. However, the study concludes that the available bank credit to SMEs and the level of personal savings are inadequate to enhance the growth such that unemployment will be reduced, hence the increasing level of unemployment in Nigeria.

## **VIII. Recommendations**

The study makes the following recommends:

- Monetary authorities are advised to lower the high interest rate in the country to single digit. This will not only promote SMEs access to bank credit but also enhance their profit. In their quest to make to benefit from the rising profit will embark on expansion which will invariably lead to fall in unemployment in the country.
- Government should establish and fund specialized financial institution to mobilize financial contribution from the prospective SMEs investors. The institution should provide 90 percent of what the prospective

SMEs investor contributed as loan at a single digit interest. This will encourage the growth of SMEs and contract unemployment in the country.

- The SMEs investors should be encouraged to form partnership. The formation of partnership business will enable them to pool their resources together, raise larger capital, make them less risk averse and as well increase their access to bank credit. This will result to output expansion and employment generation.
- Government should establish guarantee scheme to cushion off the risk that might be incurred in the course of lending to high risk SMEs. The scheme will guarantee banks in case SMEs failed to repay the loans.
- Monetary authorities should adopt a policy that will abrogate stringent measures attached to loans by banks. The measure makes it almost impossible for SMEs to access banks loans due to their inability to meet those conditions. This has dire impact on the role of SMEs in unemployment reduction in Nigeria.

### References

- [1]. Abubakar, A. S., & Yahya, Z. A. (2013). Strengthening small and medium enterprises (SMEs) as a strategy for poverty reduction in North Western Nigeria. *American Journal of Humanities and Social Sciences*, 1 (3), 189 – 201. DOI: 10.11634/232907811301338
- [2]. Afolabi, M. O. (2013). Growth effect of small and medium enterprises (SMEs) financing in Nigeria. *Journal of African Macroeconomic Review*. 3(1), 193 - 205.
- [3]. Ahiawodze, A. K., & Adade, T. C. (2012). Access to credit and growth of small and medium scale enterprises in the Ho Municipality of Ghana. *British Journal of Economics, Finance and Management Sciences*, 6 (2), 34 – 51.
- [4]. Akingunola, R. O. (2011). Small and medium scale enterprises and economic growth in Nigeria: An assessment of financing options. *Pakistan Journal of Business and Economic Review*, 2(1).
- [5]. Alalade, Y. S., Amusa, B. O., & Adekunle, O. A. (2013). Microfinance bank as a catalyst for entrepreneurship development in Nigeria: Evidence from Ogun State? *International Journal of Business and Social Sciences*. 4(12), 286 - 303.
- [6]. Alawe T. (2004) Entrepreneurship Processes and Small Business Management. Industrial Science Centre, Owoyemi House, Abeokuta road Sango Otta Ogun state, Nigeria.
- [7]. Aremu, M. Y., & Adeyemi, S. L.(2011). Small and medium scale enterprises as a strategy for employment generation in Nigeria. *Journal of Sustainable Development*, 4 (1), 200 - 206. [www.ccsenet.org](http://dx.doi.org/10.5539/jsd.v4n1p200). DOI: <http://dx.doi.org/10.5539/jsd.v4n1p200>
- [8]. Ariyo, D. (2005), Small firms are the backbone of the Nigerian economy. Accessed August 14, 2009 from [www.africaneconomicanalysis.org](http://www.africaneconomicanalysis.org)
- [9]. Bassey, N. E., Asinya, F. A., & Amba, E. A. (2014). Bank lending, macro-policy variables and the growth of small scale industries in Nigeria. *International Journal of Business and Social Science*, 59(1), 284 – 290.
- [10]. CBM (2014). Central Bank of Nigeria Statistical Bulletin, 2014.
- [11]. Dada, R. M. (2014). Commercial banks' credit and SMEs development in Nigeria: An empirical review. *International Journal of Research (IJR)*, 1(8), 305 – 319.
- [12]. Duru, M., & Lawal, M. K. (2012). Financial sector reforms and the growth of small and medium scale enterprises (SMEs) in Nigeria. *Universal Journal of Management and Social Sciences*. 2(2), 86 - 97.
- [13]. Edom, G. O., Inah, E. U., & Emori, E. G. (2015). Small and medium enterprises financing and poverty reduction in Nigeria: An empirical analysis. *Journal of Economics and Sustainable Development*, 6(11), 91- 100. Available at <http://www.iiste.org>
- [14]. Gbandi, E. C., & Amissah, G. (2014). Financing options for small and medium enterprises (SMEs) in Nigeria. *European Scientific Journal*, 10(1) , 327 – 340.
- [15]. Granger, C. W. J. and Newbold, P. (1974). Spurious regressions in econometrics. *Journal of Econometrics*, 2, 111 - 120. Available at <http://www.tititutorancea.com>.
- [16]. Hassan, M. A., & Olaniran, S. O. (2011). Small business entrepreneurs through assistance institutions: The role of industrial development centre, Osogbo, Nigeria. *International Journal of Business and Management*, 6(2), 213 – 226. DOI: <http://dx.doi.org/10.5539/ijbm.v6n2p213>
- [17]. Hudson, I. U., Andrew, S. B., & Ibrahim, A. I. (2014). Small and medium scale enterprises and employment generation in Borno State: A study of selected SMEs in Maiduguri metropolis. *Journal of Sciences and Multidisciplinary Research*, 6(2), 144 – 157.
- [18]. Hussain, M. N., & Nadol, C. (1997). Employment, growth and the demand side: The case of some african countries. *African Development Bank's Economic Research Papers*, no 28, The African Development Bank.
- [19]. Imafidon, K., & Itoya, J. (2014). An analysis of the contribution of commercial banks to small scale enterprises on the growth of the Nigeria economy. *International Journal of Business and Social Science*, 5(9, 1), 256 – 263.
- [20]. Imoughele, L. E., & Ismaila, M. (2013). Commercial bank credit accessibility and sectoral output performance in a deregulated financial market economy: Empirical evidence from Nigeria. *Journal of Finance and Bank Management*, 1(2), 36 - 59.
- [21]. Imoughele, L. E., & Ismaila, M. (2014). The impact of commercial bank credit on the growth of small and medium scale enterprises: econometric evidence from Nigeria (1986 - 2012). *Journal of Educational Policy and Entrepreneurial Research (JEPER)*, 1(2), 251 – 261.
- [22]. Ismaila, B. K.. (2012). Small and medium scale enterprises and employment generation in Nigeria: The role of finance. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 1(9), 79 – 93.
- [23]. Jhingan, M. L. (2007). *Macroeconomic theory*. 11<sup>th</sup> ed. New Delhi, Vrinda Publications (P) ltd.
- [24]. Keynes, J. M. (1936), *General Theory of Employment, Interest and Money*, Palgrave Macmillian, (2007 Ed.).



- [25]. Mambula, C. (2002). Perceptions of SME growth constraints in Nigeria. *Journal Small Business Management*, 40(1), 58-65.
- [26]. Muritala, A. T., Awolaja, A. M., & Bako, Y. A. (2012). Impact of small and medium enterprises on economic growth and development. *American Journal of Business and Management*.1 (1), 18 - 22.
- [27]. Nwosa, P. I., & Oseni, I. O. (2012). The impact of banks loan to SMEs on manufacturing output in Nigeria. *Journal of Social and Development Sciences*, 4(5), 212 - 217.
- [28]. Oba, U. O., & Onuoha, B. C. (2013). The role of small and medium scale enterprises in poverty reduction in Nigeria: 2001 – 2011. *An International Multidisciplinary Journal, Ethiopia*, 7&4 (31), 1-25. DOI: <http://dx.doi.org/10.4314/afirrev.7i4.1>
- [29]. Obasan, K. A., & Adediran, O. A. (2011). Small and medium scale enterprises and economic growth in Nigeria. *International Journal in Social Sciences*, 1(2), 20 - 46.
- [30]. Obasan, K. A., & Arikewuyo, K. A. (2012). The effect of pre- post bank consolidation on the accessibility of finance to SMEs in Nigeria. *Journal of Business and Management Research*, 1(3), 108 - 120. doi:10.5430/bmr.v1n3p108
- [31]. Odularu, G. O. (2008). Crude oil and Nigerian economic performance.
- [32]. Ofoegbu, E. O., Akanbi, P. A., & Joseph, A. I. (2013). Effects of contextual factors on the performance of small and medium scale enterprises in Nigeria: A case study of Ilorin Metropolis. *Advances in Management and Applied Economics*, 3(1), 95 – 114.
- [33]. Olawale, F. (2014). The role of small and medium enterprises in alleviating the development challenges facing South Africa. *Mediterranean Journal of Social Sciences*, 5(23), 270 – 277. Doi:10.5901/mjss.2014.v5n23p270
- [34]. Onyeiwu, C. (2011). *Small and medium enterprises finance and economic development of Nigeria*. University of Lagos, University press.
- [35]. Onyeiwu, C. (2012). Small and medium enterprises finance and economic development of Nigeria. An unpublished Article. University of Lagos. Lagos State, Nigeria.
- [36]. Owenvbiugie, R. O., & Igbinedion, V. I. (2015). Role of finance on the growth of small and medium scale enterprises in Edo State of Nigeria. *Journal of Educational and Social Research*, 5(1), 241 – 247. Doi:10.5901/jesr.2015.v5n1p241
- [37]. Oyefuga, I. O., Siyanbola, W. O., Afolabi, O. D., Dada, A. D., & Egbetokun, A. A. (2010). SMEs funding: An assessment of an intervention scheme in Nigeria. *World Bank review of entrepreneurship, management and sustainable development*. 2(5).
- [38]. Safiryu, A. M., & Njogo, B. O. (2012). Impact of small and medium scale enterprises in the generation of employment in Lagos State. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 1(11), 107 – 141. Available at <http://www.arabianjbm.com/pdfs/KD-VOL-1-11/8.pdf>
- [39]. Safiyiyah, M. A., & Garba, B. B. (2013). An assessment of the contribution of commercial banks to the growth of small and medium scale enterprises in Nigeria. *International Journal of Research in Social Sciences*, 2(4), 47 – 55.
- [40]. Samson, O., & Abass, A. S. (2013). Does deposit money banks impact economic growth? Evidence from Nigeria. *African Journal of Business Management*, 7(3), 196 - 205. DOI: 10.5897/AJBM12.932
- [41]. Say, J. B. (1824). *A Treatise on Political Economy* (Translation). Punscape, C.K., Trans. 4th ed. Boston, Massachusetts: Wells and Lilly Press.
- [42]. Schneider-Barthold, F. (2002), Africa's aborted industrialization, modernisation strategies impede organic industrial growth. D+C development and cooperation (No. 1, January/February, pp 15-17), Deutsche stiftung fur internationale entwicklung (DSE), Germany.
- [43]. Tijani, A. A., Oyeniyi, G. O., & Ogunyomi, O. O. (2012). The impact of technical entrepreneurial skills on employment generation in small and medium scale enterprises in Lagos State, Nigeria: A comparative analysis. *European Journal of Humanities and Social Sciences*, 13(1), 604 – 622.
- [44]. Uremadu, S. O., Ani, O. I., & Odili, O. (2014). Banking system credit to small and medium scale enterprises (SMEs) and economic growth in Nigeria: A co-integration approach. *IOSR Journal of Economics and Finance (IOSR-JEF)*, 5(6), 41 – 51. [www.iosrjournals.org](http://www.iosrjournals.org)
- [45]. Uwazie, I. U., Igwemma, A. A. and Nnabu, B. E. (2015). Causal relationship between foreign direct investment and economic growth in Nigeria. *International Journal of Economics and Finance*, 7(11), 230 – 241. Doi: 10.5539/ijef.v7n11p230.
- [46]. Yusuf, T. O., & Dansu, F. S. (2013). SMEs business risks and sustainability in Nigeria. *European Journal of Business and Social Sciences*, 2(9), 76 - 94.
- [47]. Zacheus. O. O., & Omoseni, O. A. (2014). The impact of small and medium scale enterprises on economic development of Ekiti State of Nigeria. *Journal of Economics and Sustainable Development*, 5(16), 115 – 122.

## APPENDIX

**Table A1: Variables Used for the Analysis**

Year	Unemployment Rate	Commercial Bank Credit to SMEs as ratio of Total credit to Private Sector	Prime Interest Rate	Total Private Savings as ratio of GDP at Current Basic Prices
1992	6.06	27.04	29.80	6.30
1993	5.28	17.41	18.32	7.80
1994	4.79	14.32	21.00	7.93
1995	5.91	15.86	20.18	3.73
1996	5.36	16.60	19.74	3.34
1997	5.76	13.12	13.54	3.24

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1998	6.01	11.53	18.29	5.01
1999	17.5	10.43	21.32	5.93
2000	13.1	7.58	17.98	5.74
2001	13.6	6.21	18.29	7.08
2002	12.6	8.68	24.85	7.60
2003	14.8	7.49	20.71	6.61
2004	13.4	3.62	19.18	6.99
2005	11.9	2.54	17.95	9.01
2006	12.3	0.99	17.26	9.37
2007	12.7	0.85	16.94	13.04
2008	14.9	0.17	15.14	16.95
2009	19.7	0.17	18.99	23.25
2010	21.1	0.14	17.59	10.90
2011	23.9	0.16	16.02	10.37
2012	24.3	0.13	16.79	11.24
2013	29.5	0.15	16.72	10.81
2014	27.44	0.14	16.55	13.49

Source: National Bureau of Statistics Annual Publication, 2001, 2010, 2014 and Central Bank of Nigeria Statistical Bulletin, 2014