

# **FINANCIAL INTERMEDIATION AND SMALL AND MEDIUM ENTERPRISES PERFORMANCE IN NIGERIA (AN AGGREGATED ANALYSIS: 1980-2013)**

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## **Abstract**

Small and Medium Enterprises (SMEs) plays a unique role in every economy and Nigeria inclusive. That notwithstanding, the performance of Small and Medium Enterprises (SMEs) in Nigeria is reported in the literature to be very low in terms of survival rate and contribution to Gross Domestic Product (GDP) despite government intervention. Against this backdrop, this study investigates the effect of financial intermediation on small and medium enterprises performance in Nigeria using an econometric model of the Ordinary Least Square (OLS). Findings reveal that with the exception of bank interest rate to SMEs, all other variables - financial intermediation, commercial bank loans and advances to SMEs, bank lending rate to SMEs, exchange rate and monetary policy - have a positive and significant influence on small and medium enterprises performance in Nigeria. The study recommends that the Nigerian government should design an accessible and a well supervised SMEs credit scheme for the development of the sector. An appropriate environment and infrastructural facilities for SMEs development should be provided by the government so as to facilitate commercial bank loans and advances with good Bank lending and interest rate to SMEs. The government should also influence the foreign exchange rate, by positive economic reforms through its monetary policies that will reduce the adverse effect of unstable foreign exchange rate on the Nigerian economy with respect to trade flow. This will induce growth in the sector.

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**Keywords:** Financial Intermediation, Small and Medium Enterprises (SMEs), Gross Domestic Product (GDP), Performance

## **Introduction**

Small and Medium Enterprises have been regarded by both developed and developing economies as an engine of growth and development for many reasons - it is a force for economic growth, job creation, and poverty reduction in developing countries. Small and Medium Enterprises (SMEs) have been the means through which accelerated economic growth and rapid industrialization have been achieved across the globe. SMEs have the capacity to enhance the economic output and enhance human welfare (Shehu and Mahmood, 2014; Akingunola, 2011; Olabisi and Olagbemi, undated). In Nigeria, SMEs are valued for several reasons. As reported by World Bank in Akingunola (2011), Nigerian are characterized as low income earners, but SMEs on the average achieve decent levels of productivity especially of capital and other factors taken together (that is, total productivity factor) while also generating relatively large amount of socio-economic development. According to Christopoulos and Tsionas (2004), the SME sector is viewed as being populated by firms most of which have considerable growth potential. SMEs in developing countries achieve productivity increases to a great extent simply by borrowing from the shelf of technologies available in the world.

Despite the unique role played by Small and Medium Scale Enterprises (SMEs) in every economy and Nigeria inclusive. The performance of Small and Medium Scale Enterprises (SMEs) in Nigeria is reported to be very low in term of survival rate and contribution to Gross Domestic Product (GDP) (Yusuf and Dansu, 2013; Adeloje, 2012 ). The low survival rate and poor contribution of SMEs to Gross Domestic Product (GDP) is attributed by researchers to a lot of factors. According to Akinruwa, Awolusi and Ibojo (2013) and Komppula (2004), SMEs performances are constrained by two major factors: internal factor such as entrepreneur competencies, commitment, resource, strategic choice and external factor like competitors, culture, technology, infrastructure and government policy. In addition, Onugu (2005) reported that ten key broad problem areas militate against SMEs in Nigeria which are crystallized in the following decreasing order of intensity. They include: Management problems, Access to finance/capital, Infrastructural problems, Government policy inconsistency and bureaucracy, Environmental factor related problems, Multiple taxes and levies, Access to modern technology problems, Unfair competition, Marketing related problems, Non-availability of raw materials locally.

Among the catalogue of problems listed in extant literature, access to finance/capital remain a teething problem (Ogujiuba, Fadila and Stiegler,

2013). Government and stakeholders at all levels in Nigeria have continued to mediate in the promotion of SMEs in the country by introducing one form of economic empowerment programme or the other yet the financial mediations are rarely seen in the eye of the people. According to Shittu (2012), the role of financial intermediation has been exemplified in numerous literatures of finance. Besides the performance of specialized tasks, several theoretical models posit that they mitigate the costs associated with information acquisition and the conduct of financial transactions. As cited by Shittu (2012), several studies have revealed that financial intermediation does more than cost mitigation. It makes provision for insurances and risk sharing, stimulates the funding of liquidity needs through credit lines, and aids the creation of specialized products (Allen and Gale; 1997, 2004; Holmstrom and Tirole; 1998; Benstom and Smith. Jr, 1975). This therefore, suggests the important role of financial intermediation in facilitating the efficiency of the financial system and also serves as a conduit through which monetary policy is affected. At micro-level, financial intermediation stimulates the restructuring and liquidation of distressed firms as well as eliminating the inefficiencies associated with the absence of inter-temporal smoothing, as a result of incomplete market (Shittu, 2012; Araujo and Minetti, 2007; Allen and Gale, 1997).

According to Imoughele and Ismaila (2014), banking reforms have been established by the monetary authority in Nigeria in enhancing credit accessibility. The overall intentions of these reforms have been to ensure financial stability so as to influence the growth of the economy and also encourage banks to play critical role of financial intermediation in provision and accessibility of credit in the Nigerian economy. Apart from commercial bank credit to the SMEs, the Nigerian government has institutionalized microfinance as the practice of collaborative provision of financial services such as credits (loans), savings, micro-leasing, micro-insurance and payment transfers to economically active poor and low income households. This is to enable them engage in income generating activities or expand their small businesses. But the impact of this intervention on rural communities is yet to be ascertained and most small firms are short-lived (Ogujiuba, Fadila and Stiegler, 2013; Yusuf and Dansu, 2013; Irobi, 2008). Thus, warranting an empirical probing to ascertain the influence of various macroeconomic financial indicators like financial intermediation, commercial bank credits, bank lending rate, exchange rate, monetary policy rate and bank interest rate on performance of SMEs in Nigeria.

### **Statement of the Problem**

This study was informed by the declining performance of SMEs in Nigeria in term of survival rate and contribution to Gross Domestic Product

(GDP) (Yusuf and Dansu, 2013; Adeloje, 2012 ). One major factor contributing to this declining performance is access to finance/capital (Shittu, 2012; Onugu, 2005). Previous studies have shown that through monetary policies the Nigerian government has intermediated in provision and accessibility of credit in the SMEs sector by provision of financial services such as credits (loans), savings, micro-leasing, micro-insurance and payment transfers to economically active poor and low income households without much improvement (Imoughele and Ismaila, 2014; Ogujiuba, Fadila and Stiegler, 2013). However, as a missing gap in the literature, which this study intends to fill, due accentuation has not been paid to the influence of various macroeconomic financial indicators like financial intermediation, commercial bank credits, bank lending rate, exchange rate, monetary policy rate and bank interest rate on performance of SMEs in Nigeria.

### **Objective of the Study**

The main objective of this study is to investigate the effect of financial intermediation on Small And Medium Enterprises Performance in Nigeria. Specifically, the study intends to:

- i. Ascertain influence of various macroeconomic financial indicators like financial intermediation, commercial bank credits, bank lending rate, exchange rate, monetary policy rate and bank interest rate on performance of SMEs in Nigeria.
- ii. Determine the relationship between macroeconomic financial indicators like financial intermediation, commercial bank credits, bank lending rate, exchange rate, monetary policy rate and bank interest rate and performance of SMEs in Nigeria.

### **Review of related literature**

#### ***Concept of SMEs in Nigeria***

The concept of SMEs has been variously defined by scholars from different stand points (Musa, 2013; Bamidele, 2012; Aluko, 2002). However, one clear point is that the conceptualization of SMEs is country specific. In Nigeria, for instance, SMEs as defined by Small and Medium Industries Equity Investment Scheme (SMIEIS), are enterprises with a total capital employed not less than N1.5 million, but not exceeding N200 million, including working capital, but excluding cost of land and/or with a staff strength of not less than 10 and not more than 300 (Imoughele and Ismaila, 2014). This conceptualization will be adopted for the purpose of this study bearing in mind that there are numerous definitions of SMEs by different scholar in the literature.

### ***Performance of SMEs in Nigeria***

Extant literature has revealed that the performance of SMEs in Nigeria is relatively low (*Gbandi and Amissah, 2014; Adeloye, 2012; Kauffmann, 2005; Vision 2020, 2009; SMEDAN, 2005*). *Gbandi and Amissah (2014)*, reported that the SMEs in Nigeria have underperformed despite the fact that they constitute more than 90% of Nigerian businesses, their contribution to the nation's GDP is below 10%. This very low percentage contribution of the SMEs to Nigeria's GDP could be attributed to amongst others; unfriendly business environment, poor funding, low management skills and lack of access to modern technology. The low performance notwithstanding, SMEs in Nigeria constitute the most viable and veritable vehicle for self-sustaining industrial development. It possesses enormous capability to grow an indigenous enterprise culture more than any other strategy (*Duru and Kehinde, 2012*). According to *Imoughele and Ismaila (2014)* SMEs serves as a catalyst for employment generation, national growth, poverty reduction and economic development. SMEs world over can boast of being the major employers of labour if compared to the major industries including the multinationals. The contribution of SMEs to an economy, especially developing ones include: Greater utilization of raw materials, employment generation, encourage rural development, development of entrepreneurship, mobilization of local savings, linkages with bigger industries, provision of regional balance by spreading investments more evenly, provision of avenue for self-employment and provision of opportunity for training managers and semi-skilled worker (*Kadiri, 2012; Oluba, 2009*). The aforementioned roles and contributions of SMEs suggest that with origination and mediation in the sector, SMEs will perform creditably in terms of its contribution to GDP and survival rate.

### ***Financial Intermediation***

The role of Financial intermediation is played by the financial sector. Financial intermediation involves mitigating costs associated with information acquisition and the conduct of financial transactions. It also makes provision for insurances and risk sharing, stimulates the funding of liquidity needs through credit lines, and aids the creation of specialized products (*Shittu, 2012; Allen and Gale; 1997, 2004; Holmstrom and Tirole; 1998; Benstom and Smith. Jr, 1975*). The broad objective of financial sector is inter-temporal and interpersonal transfer of resources. The sector help firms to overcome the problems of moral hazard and adverse selection and this reduces the costs of external financing; as well as the transaction costs in general (*Onodugo, Kalu and Anowor, 2013; Levine 1997; Winkler 1998; Rajan & Zingales, 1998*).

### ***Theoretical Framework***

This study is anchored on the theory of financial intermediation. There are studies applying the theory of financial intermediation (Shittu, 2012; Dabwor, 2009; Nwaogwugwu, 2008; Rajan & Zingales, 1998; Winkler, 1998). In a recent study, Shittu (2012) applied the theory of financial intermediation on a study that seeks to examine the impact of financial intermediation on economic growth in Nigeria, using a time series data from 1970 to 2010 obtained from the CBN publications. Error correction model was estimated using the Engle-Granger technique. The paper established that financial intermediation has a significant impact on economic growth in Nigeria. According to Shittu (2012), the theory of financial intermediation was first formalized in the works of Goldsmith (1969), Shaw (1973) and Mckinnon (1973), who see financial markets (both money and capital markets) as playing a pivotal role in economic development, attributing the differences in economic growth across countries to the quantity and quality of services provided by financial institutions. Although there are conflicting view from different schools of thought on the roles of financial intermediation on economic growth across countries (Nwaogwugwu, 2008; Dabwor, 2009; Robinson, 1952), and the causal relationship between them. But the role of financial intermediation on growth has been exemplified in numerous literatures of finance (Shittu, 2012).

In this study, therefore, accentuation will be given to financial intermediation and performance of SMEs (which is believed to stimulate growth) in Nigeria by investigating the influence of key macroeconomic financial indicators like financial intermediation, commercial bank credits, bank lending rate, exchange rate, monetary policy rate and bank interest rate on performance of SMEs in Nigeria. The variables have in different context explain some variance in stimulating growth. Thus their inclusion in the model.

### ***Related Empirical Literature***

Imoughele and Ismaila (2014) employed Co-integration and Error Correction Modelling (ECM) techniques to investigate empirically the impact of commercial bank credit on Nigeria's Small and Medium Scale enterprises (SMEs) between 1986 and 2012. The results revealed that SMEs and selected macroeconomic variables included in the model have a long run relationship with SMEs output. The study also revealed that savings time deposit and exchange rate has a significant impact on SMEs output in Nigeria. Furthermore, commercial bank credit to SMEs, total government expenditure and bank density has direct but insignificant impact on the country's SMEs output. The study also showed that interest rate has adverse

effect on SMEs output. In another related study, Omika (2014) examines the necessity and strategies of re-positioning commercial banks in order to enhance the productive capacities of Small and Medium-Scale Enterprises (SMEs). The Ordinary Least Square (OLS) was used. The results showed that there was co-integration between re-positioning of commercial banks and capacities of SMEs to deliver products/services and there was significant dispersion resulting from lending conditions and macroeconomic variables. Akinruwa, Awolusi and Ibojo (2013), carried out a similar study in Ekiti State using regression analysis. Their findings showed that funds, managerial skills, government policy, education and facilities were significantly related with performance. By ranking, funds were considered most significant followed by education, government policy, managerial skill and facilities.

Sokoto and Abdullahi (2013) examined how strengthening the Small and Medium Enterprises (SMEs) can contribute to poverty reduction in north western Nigeria. Using both primary data and secondary information that was analyzed with the use of t-test statistics. The major findings of the study is that large enterprises contribute more in the area of employment provision than the SMEs going by the country – wide data. This contradicts the a priori assumption that small and medium enterprises do contribute to employment generation and use more indigenous technology than large corporations.

Yusuf and Dansu (2013) examined the relationship between business risks and the sustainability of SMEs in Nigeria using Chi-square and descriptive statistics. The result revealed that standard risk management strategy by SMEs will result to their sustainability. Shittu (2012) examined the impact of financial intermediation on economic growth in Nigeria. The paper established that financial intermediation has a significant impact on economic growth in Nigeria. The Spearman's Rho correlation test was employed by Akingunola (2011) to determine the relationship between SMEs financing and investment level. The analysis reported a significant Rho value of 0.643 at 10%. Indicating that there is significant positive relationship between SMEs financing and economic growth in Nigeria via investment level.

In the final analysis, related studies on the topic of financial intermediation and Small And Medium Enterprises Performance in Nigeria have been investigated from different standpoint and varying literally perspectives. Literatures reviewed either examined financial intermediation and economic growth or focusing on provision and accessibility of credit in the SMEs sector by provision of financial services such as credits (loans), savings, micro-leasing, micro-insurance and payment transfers to economically active poor and low income households using primary data. However, as a missing gap in the literature, which this study intends to fill, due accentuation has not been paid to the influence of various

macroeconomic financial indicators like financial intermediation, commercial bank credits, bank lending rate, exchange rate, monetary policy rate and bank interest rate on performance of SMEs in Nigeria. The only study similar to this was the one carried out by Imoughele and Ismaila (2014) which was not enough for projection and generalization.

## **Methodology**

### ***Model Specification***

Following a detailed review of previous studies and improving upon the theoretical postulate described in Shittu (2012), economic growth is expressed as a function of financial intermediation, Ft, and a set of control variable, Z. In order to achieve a robust result in the context of this study, we adopt the knowledge gained from the above theoretical framework. This modification was the introduction of financial intermediation, commercial bank credits, bank lending rate, exchange rate, monetary policy rate and bank interest rate. Thus, small and medium enterprise (SME) will be proxied by small and medium enterprise output (growth rate) as dependent on or a function of financial intermediation proxied by credits to SMEs, commercial bank loans and advances to SMEs, bank lending rate, exchange rate, monetary policy rate and bank interest rate. Thus, the model of this study is stated as follows:

*The functional form of the model is*

$$\text{SME} = f(\text{FIT}, \text{LOA}, \text{LER}, \text{EXR}, \text{MPR}, \text{INT}) \quad . \quad . \quad . \quad (1)$$

*The mathematical form of the model is*

$$\text{SME} = \beta_0 + \beta_1 \text{FIT} + \beta_2 \text{LOA} + \beta_3 \text{LER} + \beta_4 \text{EXR} + \beta_5 \text{MPR} + \beta_6 \text{INT} \quad . \quad (2)$$

*The econometric form of the model is*

$$\text{SME} = \beta_0 + \beta_1 \text{FIT} + \beta_2 \text{LOA} + \beta_3 \text{LER} + \beta_4 \text{EXR} + \beta_5 \text{MPR} + \beta_6 \text{INT} + \alpha_i \quad . \quad (3)$$

Where; SME = Small and medium enterprise (SME) performance proxied by small and medium enterprise output (Industrial growth rate)

FIT = Financial intermediation proxied by credits to SMEs

LOA = commercial bank loans and advances to SMEs

LER = Bank lending rate to SMEs

EXR = Exchange rate

MPR = Monetary policy rate

INT = Bank interest rate to SMEs

f = Functional form/relationship

$\beta_0$  = Intercept of the model

$\beta_1 - \beta_6$  = Parameters of the model

$\alpha_i$  = Stochastic error term



## Presentation of empirical findings

### *Summary of Stationary Unit Root Test*

Establishing stationarity is essential because if there is no stationarity, the processing of the data may produce biased result. The consequences are unreliable interpretation and conclusions. We test for stationarity using Augmented Dickey-Fuller (ADF) tests on the data. The ADF tests are done on level series, first and second order differenced series. The decision rule is to reject stationarity if ADF statistics is less than 5% critical value, otherwise, accept stationarity when ADF statistics is greater than 5% criteria value. The summary of the result is shown in table 1 below.

Table 1: Summary of ADF test results

Variables	ADF Statistics	Lagged Difference	1% Critical Value	5% Critical Value	10% Critical Value	Order of Integration
SME	3.941672	1	-3.653730	-2.957110	-2.617434	$I(1)$
FIT	-5.053645	1	-3.653730	-2.957110	-2.617434	$I(1)$
LOA	-5.524905	1	-3.653730	-2.957110	-2.617434	$I(1)$
LER	-6.728109	1	-3.653730	-2.957110	-2.617434	$I(1)$
EXR	-5.230674	1	-3.653730	-2.957110	-2.617434	$I(1)$
MPR	-7.702025	1	-3.653730	-2.957110	-2.617434	$I(1)$
INT	-10.05319	1	-3.653730	-2.957110	-2.617434	$I(1)$

Source: Researchers computation

Evidence from unit root table above shows that none of the variables are stationary at level difference, that is,  $I(0)$ , rather all the variables are stationary at first difference, that is,  $I(1)$ . Since the decision rule is to reject stationarity if ADF statistics is less than 5% critical value, and accept stationarity when ADF statistics is greater than 5% criteria value, the ADF absolute value of each of these variables is greater than the 5% critical value at their first difference but less than 5% critical value in their level form. We therefore accept stationarity of ADF statistics at their first difference integration.

### *Cointegration Test*

Having substantiated that all the variables in our model are stationary from ADF tests, we proceed to present the result of the Johansen co-integration test. The co-integration tests for our model are based on the assumption of a linear deterministic trend in the data; also the assumption which allows for intercept but no trend in co-integration equation is used. The summary results of our co-integration test is shown in the table 2 below.

**Summary of Johansen Cointegration Test**

## Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.852754	201.6098	125.6154	0.0000
At most 1 *	0.790329	140.3090	95.75366	0.0000
At most 2 *	0.686322	90.31803	69.81889	0.0005
At most 3 *	0.550925	53.21759	47.85613	0.0144
At most 4	0.390512	27.59952	29.79707	0.0878
At most 5	0.196772	11.75519	15.49471	0.1690
At most 6 *	0.137770	4.743462	3.841466	0.0294

## Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.852754	61.30083	46.23142	0.0007
At most 1 *	0.790329	49.99097	40.07757	0.0028
At most 2 *	0.686322	37.10044	33.87687	0.0199
At most 3	0.550925	25.61806	27.58434	0.0874
At most 4	0.390512	15.84433	21.13162	0.2341
At most 5	0.196772	7.011729	14.26460	0.4878
At most 6 *	0.137770	4.743462	3.841466	0.0294

*Source: Researchers computation*

Table 2 indicates that trace have 4 cointegrating variables in the model while Maximum Eigen-value indicated 3 cointegrating variables. Both the trace statistics and Eigen value statistics reveal that there is a long run relationship between the variables. That is, the linear combination of these variables cancels out the stochastic trend in the series. This will prevent the generation of spurious regression results. Hence, the implication of this result is a long run relationship between small and medium enterprise performances and other macroeconomic variables used in the model.

### ***Presentation Of Result***

The **Summary of regression results** is shown in table 3 below.

Table 3: Summary of regression results  
 Dependent Variable: SME  
 Method: Least Squares  
 Sample: 1980-2013  
 Included observations: 34

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	24.94946	0.837326	29.79660	0.0000
FIT	1.058421	0.000146	4.071793	0.0003
LOA	0.013815	0.007334	5.883607	0.0001
LER	0.099089	0.070783	3.399895	0.0002
EXR	0.021281	0.004661	4.566033	0.0001
MPR	0.042809	0.069893	3.612491	0.0005
INT	-0.023038	0.065603	-3.351175	0.0002
R-squared	0.892336	F-statistic	37.29686	
Adjusted R-squared	0.868411	Prob(F-statistic)	0.000000	
S.E. of regression	1.007367	Durbin-Watson stat	2.011769	

Source: Researchers computation

### ***Evaluation of the Estimated Model***

To analyze the regression results as presented in table 3, we employ economic a priori criteria, statistical criteria and econometric criteria.

#### **Evaluation based on economic a priori criteria**

This subsection is concerned with evaluating the regression results based on a priori (i.e., theoretical) expectations. The sign and magnitude of each variable coefficient is evaluated against theoretical expectations.

From table 3, it is observed that the regression line have a positive intercept as presented by the constant (c) = 24.94946. This means that if all the variables are held constant (zero), SME will be valued at 24.94946. Thus, the a-priori expectation is that the intercept could be positive or negative, so it conforms to the theoretical expectation.

From table 3, it is observed that financial intermediation, commercial bank loans and advances to SMEs, bank lending rate to SMEs, exchange rate and monetary policy rate have a positive relationship with small and medium enterprises performance in Nigeria. This means that financial intermediation, commercial bank loans and advances to SMEs, bank lending rate to SMEs, exchange rate and monetary policy rate will bring about more growth in the small and medium enterprises performance in Nigeria. On the other hand, bank interest rate to SMEs was observed to have a negative sign which

means that if interest rate to SMEs is falling, there will be increase in the small and medium enterprises performance in Nigeria.

From the regression analysis, it is observed that all the variables conform to the a priori expectation of the study. Thus, table 4 summarises the a priori test of this study.

Table 4: Summary of economic a priori test

Parameters	Variables		Expected Relationships	Observed Relationships	Conclusion
	Regressand	Regressor			
$\beta_0$	SME	Intercept	+/-	+	Conform
$\beta_1$	SME	FIT	+	+	Conform
$\beta_2$	SME	LOA	+	+	Conform
$\beta_3$	SME	LER	+	+	Conform
$\beta_4$	SME	EXR	+/-	+	Conform
$\beta_5$	SME	MPR	+	+	Conform
$\beta_6$	SME	INT	-	-	Conform

Source: Researchers compilation

### ***Evaluation based on statistical criteria***

This subsection applies the  $R^2$ , adjusted  $R^2$ , the S.E, the t–test and the f–test to determine the statistical reliability of the estimated parameters. These tests are performed as follows:

From our regression result, the **coefficient of determination ( $R^2$ )** is given as 0.892336, which shows that the explanatory power of the variables is very high and/or strong. This implies that 89% of the variations in SME performance in Nigeria is being accounted for or explained by the variations in FIT, LOA, LER, EXR, MPR and INT. While other determinants of SME performance not captured in the model explain just 11% of the variation in SME performance growth in Nigeria.

The **adjusted  $R^2$**  supports the claim of the  $R^2$  with a value of 0.868411 indicating that 87% of the total variation in the dependent variable (SME performance is explained by the independent variables (the regressors)). Thus, this supports the statement that the explanatory power of the variables is very high and strong.

The **standard errors** as presented in table 3 show that all the explanatory variables were significant. The low values of the standard errors in the result show that some level of confidence can be placed on the estimates (*see* table 3).

The **F-statistic**: The F-test is applied to check the overall significance of the model. The F-statistic of our estimated model is 37.29686 and the probability of the F-statistic is 0.000000 (*see* table 3). Since the probability of the F-statistic is less than 0.05, we conclude that the explanatory variables have significant impacts on SME performance in Nigeria.

## **Conclusion and recommendations**

The study attempted to explain the impact of financial intermediation on small and medium enterprises performances in Nigeria from 1980 -2013 using Ordinary least Square (OLS) technique method. All data used were secondary data obtained from the Statistical Bulletin of Central Bank of Nigeria.

The OLS techniques was applied after determining stationarity of our variables using the ADF Statistic, as well as the cointegration of variables using the Johansen approach. The variables are stationary and have a long term relationship among the variables in the model.

From the result of the OLS, it was observed that financial intermediation, commercial bank loans and advances to SMEs, bank lending rate to SMEs, exchange rate and monetary policy rate have a positive relationship with small and medium enterprises performance in Nigeria. This means that financial intermediation, commercial bank loans and advances to SMEs, bank lending rate to SMEs, exchange rate and monetary policy rate will bring about more growth in the small and medium enterprises performance in Nigeria. On the other hand, bank interest rate to SMEs was observed to have a negative sign which means that if interest rate to SMEs is falling, there will be increase in the small and medium enterprises performance in Nigeria.

From the regression analysis, the result show that all the variables conform to the a priori expectation of the study, where financial intermediation, commercial bank loans and advances to SMEs, bank lending rate to SMEs, exchange rate and monetary policy rate have a positive relationship with small and medium enterprises performance, bank interest rate to SMEs have a negative relation with small and medium enterprises performance.

From the empirical reviewed work, some authors argued that financial intermediation is positively related to small and medium enterprises performances; while some authors argued that it is negatively related. However, from empirical analysis of this study, it was found that financial intermediation is positively related to small and medium enterprises performances in Nigeria.

The F-test conducted in the study shows that the model has a goodness of fit and is statistically different from zero. In other words, there is a significant impact between the dependent and independent variables in the model.

Finally, the study shows that a long run relationship exists among the variables. Both  $R^2$  and adjusted  $R^2$  show that the explanatory power of the variables is very high or strong. The standard errors show that all the

explanatory variables were all low. The low values of the standard errors in the result show that some level confidence can be placed on the estimates.

The study therefore recommends the following: The Nigerian government should design an accessible and a well supervised SMEs credit scheme for the development of the sector. An appropriate environment and infrastructural facilities for SMEs development should be provided by the government so as to facilitate commercial bank loans and advances with good Bank lending and interest rate to SMEs. The government should also influence the foreign exchange rate, by positive economic reforms through its monetary policies that will reduce the adverse effect of unstable foreign exchange rate on the Nigerian economy with respect to trade flow. This will induce growth in the sector.

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