Impact of Exchange Rate on the Performance of Small and Medium Enterprises in Nigeria

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ABSTRACT

Nigeria is currently experiencing an unprecedented fluctuation in the price of oil and Naira-Dollar exchange rate depreciation, with exchange rate volatility being more pronounced as it concerns the issues of macroeconomic financial stability, thus, affecting the performance of small and medium enterprises in Nigeria in terms of survival rate and contribution to GDP, this study examines the impact of exchange rate on the performance of small and medium enterprises in Nigeria using econometric regression model of the Ordinary Least Square (OLS). Findings revealed that exchange rate, capital, tax, managerial skill, market size, infrastructure and level of education conform to the a priori expectation of the study and are statistically significant in explaining the SMEs performance in Nigeria. In the light of the above empirical findings in the analysis carried out, the study therefore recommends that government should as a deliberate policy, encourage rural based industrialization whereby investors in different communities would be encouraged to establish small and medium scale industries that would be based entirely on local raw materials including machines and equipment. This will boost and develop the local market. There should be policies that focus on technical education at all levels for the development of human capital. Finally, the government should vigorously seek to improve the international stand of the economy with other economies of the world so as to enlarge the market for Nigerian exports. It should also re-orient its policy towards the external sector and ensure that the sector contributes optimally to output growth.

Keywords: Exchange Rate, Small and Medium Enterprises (SMEs), Performance, Regression Model, Naira-Dollar

I. INTRODUCTION

Nigeria exchange rate has had a chequered history. For over four decades, there has been inconsistencies in Nigeria's exchange rate policies and lack of continuity in the exchange rate policies have worsened the unstable nature of the naira rate (Adeniran, Yusuf & Adeyemi, 2014; Gbosi, 2005). Anigbogu, Okoye, Anyanwu and Okoli (2014) state that exchange rate management in Nigeria has evolved through various regimes. During the first decade of independence and for the early years of the 1970s, the IMF modified fixed exchange rate was adopted. After its collapse, the country moved to the adjustable peg regime, which pegged the naira to series of international currencies (1973-85). The flexible and managed float regime was instigated under SAP in 1986. The exchange rate was left to float freely and determined by market forces with the monetary authorities intervening intermittently in the FOREX market to ensure stability of the rate. The country returned back to a fixed regime from 1994 to 1998, where the naira was fixed at ₦21 to a dollar. The democratic dispensation of 1999 re-ushered the flexible and managed float regime and has remained the system till present

Consequently, with the re-usherding of the flexible and managed float regime, Naira to Dollar exchange rate has continued to depreciate at an alarming rate both at
the official and the parallel market. This also engendered the flourishing of rent seeking activities. The consequences of the depreciation in the value of Naira could be seen in the external sector through protracted balance of payments disequilibrium, low export earnings coupled with high import bills which is largely due to high overvaluation of the exchange rate and unsavoury picture in the short term and long term capital account feeding into the monstrous body of foreign debt. The domestic economy is characterized by a huge presence of a government sector, low productivity in the real sectors, high inflation rate, decaying service sector, and shaky financial sector (Aliyu, 2007).

Presently, the Naira-Dollar exchange rate is hitting ₦200.00 and over ₦300.00 at the official and the parallel market respectively. The economic shock is as a result of the unprecedented decline in the price of oil that started before the spring of 2015 and spanning into 2016 which the country is currently experiencing. The economic situation has affected every sector including the Small and Medium Enterprises (SMEs), a sector that has been regarded by both developed and developing economies as an engine of growth and development. According to Anigbogu, Okoli and Nwakoby (2015), the Small And Medium Enterprises(SMEs) sector is a force for economic growth, job creation, and poverty reduction in developing countries and also a means through which accelerated economic growth and rapid industrialization have been achieved across the globe. Today, however, the sector is presently witnessing high mortality rate as a result of many factors affecting its growth including the exchange rate volatility. The importance attached to exchange rate in an economy derives from both macroeconomic and microeconomic perspectives. For instance, the macroeconomic aspect concerns the issues of financial stability, as the exchange rate is used as an explicit and credible anchor for domestic price stability (Ali, Ajibola, Omotosho, Adetoba and Adeleke, 2015). It is therefore imperative to examine the extent of this exchange rate impact on the SME’s sector in order to device a blue print for its sustenance.

2. STATEMENT OF THE PROBLEM
This study was informed by the observed economic shock in Nigeria that has seriously affected the Small and Medium Enterprises (SMEs) sector of the country, thus, putting her acclaimed position as the giant of Africa on balance in the global competitiveness. The economic malady was mid-wife by the unprecedented decline in the price of oil and the Naira-Dollar exchange rate depreciation, with the exchange rate volatility being more pronounced as it concerns the issues of macroeconomic financial stability. According to Omotosho (2015), the exchange rate is an important concept in economics and it connotes the prices at which currencies trade for each other. Its importance stems from the fact that it links the general price level within the economy with prices in the rest of the world while also affecting other prices within the system. To central banks, exchange rate is a key variable as it could be used as a target, an instrument or simply an anchor, depending on the monetary policy framework being operated in the economy. Thus, exchange rate is at the core of any serious economic stabilization programme. The present economic situation of the country is volatile and this has serious economic implication on the SMEs’ sector as they rely more heavily on short term funding and this makes them more prone to the volatile economic situation (Uremadu, Ani and Odili, 2014). It is therefore important to empirically probe into the impact of exchange rate on the performance of small and medium enterprises in Nigeria.

3. OBJECTIVES OF THE STUDY
The main objective of the study is to examine the impact of exchange rate on the performance of small and medium enterprises in Nigeria. Specifically, the study intends to:

i. Ascertain the extent to which exchange rate, capital and tax have influence the performance of small scale enterprises in Nigeria.

ii. Determine the extent to which market size and infrastructural facilities have influence the performance of small scale enterprises in Nigeria.

iii. Ascertain the extent to which managerial skills and level of education have influence the performance of small scale enterprises in Nigeria.

4. LITERATURE REVIEW

Concept of Exchange Rate
According to Adeniran et al, (2014), exchange rate is the price of one country’s currency expressed in terms of some other currency. It determines the relative prices of domestic and foreign goods, as well as the strength of external sector participation in the
international trade. The exchange rate according to Jongbo (2014) is therefore an important relative price as it has influences on the external competitiveness of domestic goods. Thus, exchange rate has received considerable attention in terms of its influence on investment and economic growth. Extant literature averred that in Nigeria, exchange rate has changed within the time frame from regulated to deregulated regimes. It was further stated that the exchange rate of the naira was relatively stable between 1973 and 1979 during the oil boom era and when agricultural products accounted for more than 70% of the nation’s gross domestic products (GDP). In 1986 when the Federal Government adopted the Structural Adjustment Programme (SAP), the country moved from a peg regime to a flexible exchange rate regime where exchange rate is left completely to be determined by market forces but today the prevailing system is the managed float whereby monetary authorities intervene periodically in the foreign exchange market in order to attain some strategic objectives (Adeniran et al, 2014; Ewa, 2011; Mordi, 2006; Gbosi, 2005). This inconsistency in policies and lack of continuity in exchange rate policies has aggravated the unstable nature of the naira rate (Adeniran et al, 2014; Gbosi, 2005).

**Performance of Small and Medium Enterprises in Nigeria**

Small and Medium Enterprises (SMEs) have been described as the backbone of virtually all economies of the world because they have strong influence on the sustainable development process of less developed as much as developed countries and they also foster economic growth, alleviate poverty, create employment and provide personalized services (Obokoh, 2008; Wattanapruttipaisan, 2003; Ayyagari, Beck and Demirguc-Kunt, 2003). Obokoh, (2008) stated that the development of SMEs is an essential element in the growth strategy of most economies and holds particular significance for developing countries like Nigeria. The best performing economies in Asia are heavily based on SMEs which are major sources of dynamism in economic development. The requirements for SMEs to access the global market and upgrade their position within the international market as a result of trade liberalization are becoming increasingly difficult due to competition (Udechukwu, 2003; Abonyi, 2003). The unique role played by SMEs notwithstanding, it has been reported by various researchers that the performance of SMEs in Nigeria is very low in terms of survival rate and contribution to Gross Domestic Product (GDP) (Anigbogu, et al 2015; Yusuf and Dansu, 2013; Adeloye, 2012).

This low survival rate and poor contribution of SMEs to Gross Domestic Product (GDP) is attributed by researchers to a lot of factors. Akinruwa, Awolusi and Ibojo (2013) and Komppula (2004) state that SMEs performances are constrained by two major factors: internal factors such as entrepreneur competencies, commitment, resource, strategic choice and external factors 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 enumerated by researchers, government policy which include exchange rate policy is perceived to presently top the chat in the problems affecting the SMEs performance in Nigeria. Hence, the need to empirically investigate the impact of exchange rate on the performance of small and medium enterprises in Nigeria.

5. **RELATED EMPIRICAL LITERATURE**

Related studies in this study area have been approached by scholars from varying literary perspectives. Morenikeji, & Njogo, (2012) examined the impact of small and medium scale enterprises in the generation of employment in Lagos State. They found a correlation between small and medium scale enterprises and sustainable Development of the Nigerian economy. In other words that promotion of SMEs and improvement in employment generation were related. Anigbogu, Okoye, Anyanwu, Okoli, (2014) looked at Real Exchange Rate Movement-Misalignment and Volatility- and the Agricultural Sector: Evidence from Nigeria using single-regression model via the ordinary least squares. They found that RER misalignment and RER volatility impact negatively on agricultural production value. Also, appreciation of the RER inhibits the sector’s performance, while, on the contrary, financial intermediation to the sector (proxy as the ratio of agricultural bank credit to total bank credit) serves as
a positive impetus to the sector. Jongbo, (2014) investigated The impact of Real Exchange Rate Fluctuation on Industrial output in Nigeria. They found that real exchange rate played a significant role in determining industrial output and that in addition, availability of foreign exchange increased through contentious export drive from both oil and non-oil products which contributed tremendously to increased industrial output. Imougele, and Ismailia, (2014) examined The Impact of Commercial Bank Credit on the Growth of Small and Medium Scale Enterprises: an Econometric evidence from Nigeria (1986 – 2012). It was revealed that SMEs and selected macroeconomic variables included in the model had a long run relationship with SMEs output. Also, that savings time deposit and exchange rate had a significant impact on SMEs output in Nigeria. Commercial bank credit to SMEs, total government expenditure and bank density had direct but insignificant impact on the country’s SMEs output. This they said may be connected with stringent policy in accessing credit facility and the crowd out effect of government expenditure in the economy. The study also showed that interest rate had adverse effect on SMEs output. Imoisi, Uzomba and Olatunji, (undated) carried out the analysis of interest and Exchange rates effect on the Nigerian economy: 1975– 2008. They discovered that an increase in interest rate retarded investment and subsequently economic growth. Exchange rate showed the expected positive sign, implying that depreciation in exchange rate retarded growth from 1975 to 2008. Rasaq, (2013) examined the impact of exchange rate volatility on the macro economic variables in Nigeria. They found that exchange rate volatility had a positive influence on Gross Domestic Product. Ajagbe,(2012) investigated Inflation and Small and Medium Enterprises Growth in Ogbomosho Area, Oyo State, Nigeria. They found that there was a positive relationship between parameter estimate associated with capacity utilization. Insah, and Chiaraah (2013) carried out a study on Sources of Real Volatility in the Ghanaian economy. The result of the findings revealed that government expenditure is a major determinant of real exchange rate volatility. Both domestic and external debts were negatively related to real exchange rate volatility. Current external debt and a four year lag of domestic debt had significant impacts on real exchange rate volatility. Okoye and Eze (2013) X-rayed the Effect of Bank lending rate on the Performance of Nigerian Deposit Money Banks, The result confirmed that the lending rate and monetary policy rate had significant and positive effects on the performance of Nigerian deposit money banks. Uremadu, Ani and Odili (2014) examined banking system credit to small and medium scale enterprises (SMEs) and economic growth in Nigeria. They that though the banking system credit to SMEs gradually increased yearly as a result of increase in population and hence economic activities, the credit to SMEs as a percentage of total credit to the private sector declined yearly. Banking system credit to SMEs was not significant and thus did not contribute meaningfully to economic growth in Nigeria. Total credit to the private sector was statistically significant and positive at 5% level.

The literature on exchange rate movement is vast. Some of these empirical studies focus on the impact of exchange rate on the economy (or aggregated variables like export, BOP, etc.) as a whole without due accentuation to sectorial analysis and dynamism of the Exchange Rate. Due accentuation has not been given to exchange rate and SMEs’ performance. This study aims to fill the lapse in the existing literature by empirically tracing the link between exchange rate movements and the SMEs’ sector.

6. METHODOLOGY

Model Specification

The model incorporate real exchange rate, capital, tax, managerial skills, market size, infrastructural facilities and level of education as explanatory variables while performance of small scale enterprises was used the dependent variable. Thus, the model for the study is stated as follows:

The structural form of the model

\[ \text{SME} = f (\text{EXR}, \text{CAP}, \text{TAX}, \text{MAS}, \text{MKZ}, \text{FRA}, \text{EDU}) \]  

(1)

The mathematical form of the model

\[ \text{SME} = \beta_0 + \beta_1 \text{EXR} + \beta_2 \text{CAP} + \beta_3 \text{TAX} + \beta_4 \text{MAS} + \beta_5 \text{MKZ} + \beta_6 \text{FRA} + \beta_7 \text{EDU} + \mu_i \]  

(2)

The econometric form of the model

\[ \text{SME} = \beta_0 + \beta_1 \text{EXR} + \beta_2 \text{CAP} + \beta_3 \text{TAX} + \beta_4 \text{MAS} + \beta_5 \text{MKZ} + \beta_6 \text{FRA} + \beta_7 \text{EDU} + \mu_i \]  

(3)

Where;

\[ \text{SME} = \text{Performance of small and medium scale enterprises proxied by industrial growth rate} \]

\[ \text{EXR} = \text{Exchange rate} \]

\[ \text{CAP} = \text{Capital proxied by bank credits to SMEs} \]

\[ \text{TAX} = \text{Taxes proxied by company income taxes} \]
MAS = Managerial skills proxied by government expenditure on skill acquisition
MKZ = Local market size proxied by or measured by industrial output
FRA = Infrastructure proxied by government aggregate expenditure on power
EDU = Level of education measured by literacy rate

f = Functional relationship
β₀ = the intercept or the constant
β₁ – β₅ = the co-efficient of the explanatory variables
μᵳ = Stochastic error term.

7. PRESENTATION OF RESULTS

Table 1: Summary of regression results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>22.83402</td>
<td>1.064354</td>
<td>21.45341</td>
<td>0.0000</td>
</tr>
<tr>
<td>EXR</td>
<td>-0.010431</td>
<td>0.003646</td>
<td>-2.860894</td>
<td>0.0081</td>
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<tr>
<td>CAP</td>
<td>5.96E-07</td>
<td>1.47E-07</td>
<td>4.055499</td>
<td>0.0004</td>
</tr>
<tr>
<td>TAX</td>
<td>-0.064382</td>
<td>0.007459</td>
<td>-8.631975</td>
<td>0.0000</td>
</tr>
<tr>
<td>MAS</td>
<td>9.71E-08</td>
<td>1.90E-07</td>
<td>3.512323</td>
<td>0.0016</td>
</tr>
<tr>
<td>MKZ</td>
<td>0.292309</td>
<td>0.092338</td>
<td>3.165637</td>
<td>0.0038</td>
</tr>
<tr>
<td>FRA</td>
<td>1.52E-06</td>
<td>1.41E-06</td>
<td>2.828276</td>
<td>0.0085</td>
</tr>
<tr>
<td>EDU</td>
<td>9.69E-05</td>
<td>2.77E-05</td>
<td>3.494368</td>
<td>0.0017</td>
</tr>
</tbody>
</table>

R-squared: 0.972282
F-statistic: 135.2994
Adjusted R-squared: 0.965096
Prob(F-statistic): 0.000000
S.E. of regression: 0.453229
Durbin-Watson stat: 1.872223

Source: Researchers computation

Table 2: Summary of economic a priori test

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Variables</th>
<th>Regressand</th>
<th>Regressor</th>
<th>Expected Relationships</th>
<th>Observed Relationships</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>β₀</td>
<td>SME</td>
<td>Intercept</td>
<td>+/-</td>
<td>+</td>
<td>Conform</td>
<td></td>
</tr>
<tr>
<td>β₁</td>
<td>SME</td>
<td>EXR</td>
<td>+/-</td>
<td>-</td>
<td>Conform</td>
<td></td>
</tr>
<tr>
<td>β₂</td>
<td>SME</td>
<td>CAP</td>
<td>+</td>
<td>+</td>
<td>Conform</td>
<td></td>
</tr>
<tr>
<td>β₃</td>
<td>SME</td>
<td>TAX</td>
<td>-</td>
<td>-</td>
<td>Conform</td>
<td></td>
</tr>
<tr>
<td>β₄</td>
<td>SME</td>
<td>MAS</td>
<td>+</td>
<td>+</td>
<td>Conform</td>
<td></td>
</tr>
<tr>
<td>β₅</td>
<td>SME</td>
<td>MKZ</td>
<td>+</td>
<td>+</td>
<td>Conform</td>
<td></td>
</tr>
<tr>
<td>β₆</td>
<td>SME</td>
<td>FRA</td>
<td>+</td>
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</tr>
<tr>
<td>β₇</td>
<td>SME</td>
<td>EDU</td>
<td>+</td>
<td>+</td>
<td>Conform</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researchers compilation

8. CONCLUSION AND RECOMMENDATIONS

With the unprecedented decline in the price of oil and the Naira-Dollar exchange rate depreciation, and with exchange rate volatility being more pronounced as it concerns the issues of macroeconomic financial stability which is currently affecting the performance of small and medium enterprises in Nigeria in terms of survival rate and contribution to GDP, this study examines the impact of exchange rate on the performance of small and medium enterprises in Nigeria using econometric regression model of the Ordinary Least Square (OLS). From the result of the OLS, it is observed that exchange rate, capital, managerial skill, market size, infrastructure and level...
of education have positive impact on SMEs performance in Nigeria. This means that if exchange rate, capital, managerial skill, market size, infrastructure and level of education are developed and improved upon, they will bring about more SMEs performance in Nigeria. On the other hand, tax has a negative impact on SMEs performance in Nigeria. Thus, increase in tax will bring about a decline in SMEs performance in Nigeria. The study revealed that exchange rate, capital, tax, managerial skill, market size, infrastructure and level of education are good and major determinants of SMEs performance in Nigeria.

From the regression analysis, the result showed that exchange rate, capital, tax, managerial skill, market size, infrastructure and level of education conformed to the a priori expectation of the study and are statistically significant in explaining the SMEs performance 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 R² and adjusted R² show that the explanatory power of the variables is extremely high and/or strong in explaining the SMEs performance in Nigeria.

In the light of the above empirical findings in the analysis carried out, the following recommendations are proposed: The government of the country should regulate and moderate the exchange rate movement in order to ensure that it brings about more growth and development in the country. Government should vigorously seek to improve the international stand of the economy with other economies of the world so as to enlarge the market for Nigerian exports. It should also re-orient its policy towards the external sector and ensure that the sector contributes optimally to output growth. Government should as a deliberate policy, encourage rural based industrialization whereby investors in different communities should be encouraged to establish small and medium scale industries that would be based entirely on local raw materials, including machines and equipments. Thus, this will boost and develop the local market. There should be policies that focus on technical education at all levels for the development of human capital. The government should establish a National Rehabilitation Fund to provide and raise funds for viable but ailing SMEs to help resuscitate them. Government should provide more capital funding to the nascent SMEs with viable business ideas and prospects in order to reduce the rate of unemployment in Nigeria. Government should provide an enabling business environment with the provision of adequate infrastructural facilities like constant power supply, good road network, water supply and others. Also, government and non-governmental organizations (NGOs) should organize regular seminar and symposiums on skill acquisitions in order to develop the needed human skills in the country.

9. REFERENCES


