

EXCHANGE RATE FLUCTUATIONS AND MANUFACTURING PRODUCTIVITY IN NIGERIA

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Abstract

This paper empirically examined the impact of exchange rate fluctuation on manufacturing productivity in Nigeria. The paper made use of secondary data, covering periods of 1981-2019. The autoregressive distributed lag (ARDL) framework was used to analyse a multiple regression model that captured the effect of exchange rate volatility, nominal exchange rate, lending rate, inflation rate, and interest rate on manufacturing productivity in Nigeria. Data for this study was obtained from the CBN statistical bulletin, World Bank Development indicators, and the CBN annual report. Results of the regression analysis indicated that exchange rate fluctuation does not pose a serious harm to manufacturing productivity in Nigeria, rather it has positive impact on manufacturing productivity. Notably, this is because exchange rate fluctuations have been minimal in Nigeria since the year 2000. On the other hand, nominal exchange rate was reported to have significant positive effect on manufacturing productivity in Nigeria. These results show that while increase in exchange rate imply added cost of production to manufacturing firms, the fluctuations caused by movement in exchange rate are minimal. Hence, with minimal exchange rate fluctuation, manufacturing sector performance has not been adverse. Based on the foregoing, the paper recommends that the CBN should endeavour to always manage exchange rate in Nigeria in such a way that its fluctuations are minimal. This could be by way of introduction of guided intervening fund to the forest market and ensuring that forex are only allocated to those who need it for positive investment purpose.

Keywords: Exchange rate, Exchange rate Fluctuations, Manufacturing Productivity, Nigeria, theory of rational expectation

Introduction

The concept of “exchange rate fluctuation” is a term that relates to “exchange rate”, but differs from it by revealing the numeric uncertainty or risks on the expected value of exchange rate. It is same as exchange rate volatility. A volatile exchange rate more often than not do lead to conflicting result in that sometimes it leads to greater losses beyond expectation while at some other times it could yield substantial gains (Suranovic, 2016). Exchange rate volatility here implies the incessant changes in the exchange rate over time with its negative implication on the economy. The higher the speed of fluctuation of the exchange rate the higher the volatility.

The concept of exchange rate volatility in economic literature gained popularity with the collapse of the Bretton Woods System in the 1970s which was charged with the responsibility of stabilising the exchange rate among nations of the world including USA, Europe, Australia and Japan in line

with 1944 agreement. However, its demise created variations in exchange rates all over the globe (Crosby, 2000). Consequently, countries adopted their relative and favourable metrics to determine their exchange rates in order to facilitate foreign trades with countries of the world. Doing so has generated irregularities in exchange rates of economies of the world (Abdulkadir, Isaiah & Babatunde, 2015; Philippe, Philippe, Romania & Kenneth, 2006).

The topic on “exchange rate fluctuation” is a growing concern in the literature because of its uncertain implications on economic fundamentals, (Philippe, Philippe, Romania & Kenneth, 2006). This development engineered developing countries monetary authority who engages in international trade with the developed countries to evolve strategies to combat exchange rate volatility and its consequences. In Nigeria, exchange rate fluctuations were not significantly witnessed prior to 1986. This is because exchange rates were fixed by the Central Bank of Nigeria. Between 1960 and 1985, different fixed exchange rate policies were adopted (Akpan & Atan, 2012). For instance, the Nigerian currency was fixed to the British Pound Sterling in 1960 until the devaluation of the Pound in 1967. Exchange rate was further fixed until the 1980s, when the economy suffered from crash in global crude oil price. Being dependent on oil, the Nigerian government could not fulfil its fiscal obligations, and there was need to deregulate the domestic economy (Akpan & Atan, 2012). According to Obadan (2006), the reason behind the deregulation of foreign exchange rate policy was aimed at equilibrating the balance of payment; stabilise exchange rate and prevention of misappropriation of external reserve.

Ever since the breakdown of fixed exchange rate, foreign exchange rate in Nigeria has been determined by market forces; though with some interventions from the Central Bank of Nigeria. The deregulation of the Nigerian foreign exchange rate system witnessed sharp fluctuations, which increased from 0.89 for 1US Dollar in 1985, to 21.9 for 1US Dollar within one decade (1995), and was recently at 306.9 for 1US Dollar in 2019 (World Development Indicators, 2015).

For an economy that is dependent on imported goods for domestic and industrial consumption, these strong fluctuations in the foreign exchange rate is believed to adversely affect manufacturing productivity in Nigeria. The sector has failed to live to expectations despite several policies designed between 1960 and 2014 to make it operate optimally (Omotola, 2016). Statistics from the World Bank Indicators revealed that value added from the sector has declined since 2004 (see Table 1). This coincides with a time exchange rate in the country exhibited high variability; and thus, suggests that high exchange rate fluctuations are harmful to manufacturing sector performance.

Table 1: Manufacturing Performance and Exchange rate in Nigeria

Years	Value Added from Manufacturing	Exchange rate	Exchange rate Volatility
2000	13.9334	101.6973	0.097
2005	10.06108	131.2743	-0.012
2010	6.552817	150.2975	0.009
2015	9.428437	192.4403	0.194
2019	11.52236	306.921	0.003

Source: World Bank Development Indicators (2019)

There are divided opinions on the empirical studies in respect of the effect of exchange rate fluctuations on the performance of manufacturing in Nigeria. Several studies found it to be

positive (Okolo, Ugwuanyi & Okpala, 2016; Ugwu, 2017; Ogunmuyiwa & Adelowokan, 2018; Oyeyinka, 2019), a few found the impact to be negative (Falaye et al, 2019; Opaluwa, Umeh & Ameh, 2010); whereas some others found no significant correlation between exchange rate fluctuation and manufacturing sector performance (Akinmulegun & Falana, 2018). Looking into these cited studies, it was found that many of them made use of nominal exchange rate, instead of exchange rate volatility. For some of them, their methodological approach was found to be susceptible to spurious results particularly those that engaged the OLS regression results. Many of the analysis stopped at 2015. There is thus need to adopt recent data to carry out a study that aligns with current trend. For this purpose, this study carries out an empirical investigation on exchange rate fluctuations and manufacturing productivity in Nigeria. The study has five sections: an introduction, review of literature, methodology, results, and conclusion.

Literature Review

Conceptual Review

Exchange rate fluctuation refers to the uncertainty or risks associated with the expected nominal value of exchange rate in a country, at a given time. It can also be used to refer to potential gain or loss of money when an official exchange rate deviates from its expected value. It is same as exchange rate volatility; hence, they are interchangeably used in literature (Suranovic, 2016). The genesis of exchange rate volatility can be officially linked to the demise of the Bretton Woods System in the 1970s. Bretton Woods System was a monetary management institution that emerged after the Second World War and specially designed rules to guide the operation of international commercial and financial activities among countries of the world with USA and European countries at the centre of it all in line with 1944 agreement (Crosby, 2000). The collapse of Bretton Woods meant that countries of the globe adopted different exchange rate systems, many of which were market determined. However, with the creation of exchange rate fluctuations, scholars opine that this would create some measures of uncertain impact on macroeconomic variables (Philippe, Philippe, Romania & Kenneth, 2006).

Exchange rate volatility propelled economic instability around the world especially in the developing countries. In particular, the effect of this exchange rate fluctuation arising from persistent swings among the currency of the most developed countries is highly evident on the economic performance of the emerging countries (Volker & Soros, 1999; Okenyis & Maduene, 2010). It is pertinent to note here that exchange rate volatility propel exchange rate risks with its gruesome effect on international trade and investment decision. Erratic and unpredictable exchange rate fluctuation can cumulate into sporadic decline in the productivity of nations. It is therefore imperative that exchange rate fluctuation should be controlled so as to enhance domestic economy competitiveness and equally to allow the developing countries to maximise their gains from direct investment inflows.

Theoretical Review

Given the effect of exchange rate volatility on the macroeconomic indices several theories have emerged to explain this phenomenon with a view to bring about solution to the issues therein. Notable among these theories are the Marshall-Lerner condition and the J-Curve theory.

The Marshall Lerner Condition on Exchange Rate

The Marshall-Lerner condition is accredited to two economists, Alfred Marshall and Abba Lerner; who showed the necessary conditions that should prevail before depreciation in exchange rate can improve balance of payment. This condition specified that the elasticity of demand for export and import must be higher than unity (Jhingan, 2011). Thus, the condition admits that exchange rate depreciation will improve balance of payment position, by making exports relatively cheaper.

The J-Curve Theory

Unlike the Marshall-Lerner condition, The 'J curve' theory provides explanation on the relationship between trade balance and exchange rate movement. In particular, the J-Curve theory provides a short run-long run explanation on the relationship between exchange rate and balance of payment position. The theory concurs with the Marshall-Lerner condition that devalued currency means imports are more expensive. However, the J-curve admits that improvement in trade balance resulting from exchange rate depreciation is a long run phenomenon rather than short run phenomenon. The J-curve theory posits that consequent on the depreciation of the local currency, the imported values will of a necessity increase while export may remain constant because of the existence of earlier trade contract which must be honoured (Jinghan, 2011). Moreover, the increase in the value of imported items which is now more expensive is possible because such demand in the short run is price elastic due to time lag for the search of cheaper but acceptable alternatives (Jinghan, 2011). However, J- curve theory asserts that exchange rate depreciation will improve the trade balances in the long run. Jinghan (2011) asserts that this is achievable because of two phenomenons. First, foreign consumers might find goods exported to their country cheaper and therefore vote for its consumption. Second, local consumers in the long run might decides to replace now expensive imported goods with cheaper domestic items.

Some international empirical studies have been conducted to test J-Curve hypothesis in United State of America and other countries of the world. The results of these literature are mixed. While some found evidence to support J- Curve (Bahman, Oskooee & Cheema, 2009), some others found no evidence to support J- Curve theory (Ishtraq, Qasin & Dar, 2016). These empirical studies could be dichotomised into two groups based on the approach for the conduct of the study. The first group which built their model for the study to show relationship between home and foreign countries obtained no J-curve effect. On the other hand, the second group model is built around a country and its foreign trading partners to obtain evidence to support J- Curve hypothesis (Bahmani, Oskooee & Cheema, 2009).

The Theory of Rational Expectation

The subject matter of this study can be explained using the theory of rational expectation. The theory is based on how individuals develop their expectations about what will happen in the future. The theory is accredited to Keynes (1936), who noted that human decision is similar to animals, wherein it is guided by instincts. This theory has been reformed afterwards. Muth (1961) refuted the claims by Keynes that human decision making is based on instincts. Instead, he posited that decision making is based on rationality. Lucas, Barro and Sargent (1970) contributed to this theory by upholding the views held by Muth (1961). They reformed the rational expectation theory by noting that information determines decision making among economic agents; and that rational decision will always be made when there is reliable information about the future. That is, if the available information is reliable, economic agents will always minimize the fluctuation in their expectations and actual outcome. However, if the information available is not reliable,

economic agents will become less efficient and make greater mistakes, bringing about huge difference in their expectations and outcome.

This theory can be related to manufacturing performance, such that manufacturing firm owners and chief executive officers speculate about foreign exchange variations, which impact on performance of their manufacturing firms. Manufacturing firms in Nigeria rely on foreign exchange rate for the importation of machinery and equipment. Hence, these firm owners will form their investment and manufacturing decisions about an expected exchange rate value, based on available information. However, the future spot exchange rates are always uncertain. If the information is reliable, this would lower the risks associated with productivity, and bring about improved manufacturing performance. On the other hand, if the information available is used for making exchange rate decision, this would widen the risks faced with productivity, and thereby bring about decline in manufacturing sector performance. In practical terms, manufacturing decisions based on foreign exchange (FX) rate at \$150, whereas actual FX rate becomes \$300, would bring about large difference in cost of production; which would bring about losses to manufacturing firm owners. Losses would lower reinvestment of capital, and further lower productivity in the following year. However, if actual FX becomes \$120, this does not only become profitable to the manufacturer, but the minimal variability in the expected and actual outcome would encourage the facilitation of the business between both the producer and buyer of the product traded. Hence, minimal exchange rate fluctuations are beneficial to manufacturing sector performance for a country like Nigeria that depends on machinery and capital importation for its manufacturing processes.

Empirical Literature

Several studies have contributed to the study on foreign exchange rate volatility and manufacturing productivity in Nigeria. An earlier empirical work was conducted by Opaluwa, Umeh and Ameh (2010) to examine the impact of exchange rate fluctuations on manufacturing sector performance in Nigeria, between periods of 1986 and 2005, using the ordinary least squares (OLS) method. The study measured exchange rate using nominal exchange rate. The study revealed insignificant negative impact of the exchange rate on the performance of manufacturing company during the years.

In previous literature, Enekwe, Ordu and Nwoha (2013) explored the impact of exchange rate fluctuations on manufacturing sector output in Nigeria, between 1985 and 2010. Exchange rate was measured using nominal exchange rate. The model was analysed using OLS technique and found that exchange rate has significant positive impact on output from the sector.

In recent times, Oyeyinka (2019) examined the impact of exchange rate volatility on manufacturing sector performance in Nigeria between periods of 1981-2016 using the autoregressive distributed lag (ARDL) method. Exchange rate was measured using exchange rate volatility while manufacturing performance was measured using output from the sector as a percentage of GDP in Nigeria. The results obtained from the ARDL estimates found that exchange rate volatility had negative significant impact on manufacturing output with time lags, but had positive significant impact on performance of the sector during the immediate term.

Also, Falaye, Eseyin, Otekunrin, Asamu, Ogunlade, Egbide, Rasak, Moyinoluwa and Eluyela (2019) analysed the impact of exchange rate (proxied using real exchange rate) on manufacturing sector in Nigeria, based on 1990-2014 periods. The study adopted the error correction methodology (ECM) while unit root test and long run relationships were tested using the augmented dickey fuller statistic and the Johansen test. Granger causality technique was used to augment the ECM

regression results. Results found significant positive effect of exchange rate on manufacturing output in Nigeria, but exchange rate did not Granger cause performance from the sector. This is an indication that manufacturing sector is weakly influenced by exchange rate movements in Nigeria.

Ugwu (2017) had previously utilized the OLS method to analyse the effects of exchange rate dynamics on the manufacturing sector output in Nigeria using data between 1986 and 2016. The augmented dickey-fuller statistic was used to test for unit root, while the Johansen statistic was used to test for long run relationships among the variables. Based on OLS estimates, exchange rate had positive significant impact on manufacturing sector performance in Nigeria.

Differently, Otokini, Olokoyo, Okoye and Ejemeyovwi (2018) found no significant relationships between exchange rate and manufacturing performance in Nigeria. The study made use of the ECM framework, covering periods of 1980-2016. Looking at the study from another perspective, Akinmulegun and Falana (2018) found that exchange rate fluctuation does not Granger Cause manufacturing performance in Nigeria. The study relied on granger causality, where exchange rate fluctuation was measured using nominal exchange rate. Using the ARDL framework, Omotola (2016) examined the effects of exchange rate volatility (measured using nominal exchange rate) on output from the manufacturing sector in Nigeria, between 1986 and 2014. The study found that exchange rate had positive insignificant impact on output from manufacturing in Nigeria.

The summary of findings in this literature review is as follow. First there was no consensus in literature concerning the effect of exchange rate on manufacturing sector performance. While some literature found negative effect of exchange rate on manufacturing sector performance (Opaluwa, Umeh & Ameh, 2010; Oyeyinka, 2019) some others found positive impact (Enekwe, Ordu & Nwoha, 2013; Faleye et.al, 2019; Ugwu, 2017; Omotola, 2016) and yet some did not establish any relationship (Otokinni et al, 2018). Arising from this is the need to resolve this conflict in findings. Also literature establishes the fact that exchange rate did not Granger caused manufacturing sector productivity (Akinmulegun & Falana, 2018; Faleye et al, 2019).

Methodology

Based on the foregoing, the study proceeds by specifying a regression model. The model is based on rational expectation theory. The theory is used to understand how individuals develop their expectations about what will happen in the future. Lucas, Barro and Sargent (1970) noted that quality of information is important when making decision in the midst of uncertainty. They remarked that when the information is reliable, this would lower the risks associated with productivity, but if the information is not reliable, it widens the risks faced with productivity. Same way, manufacturing firm owners in Nigeria make exchange rate decision because they depend on importation of capital and machinery for their productivity. If the variation between expected exchange rate and actual exchange rate is small, it would promote performance of manufacturing; otherwise increase in variability between expected exchange rate and actual exchange rate would lower manufacturing productivity. Based on these results, this study proceeds by specifying a regression model that captures the impact of exchange rate volatility on manufacturing sector performance in Nigeria. The model can be stated mathematically as:

$$MAN = f(EXV) \quad (1)$$

Inflation, interest rate, exchange rate, and bank lending to manufacturing are included in equation (1) as control variables. Therefore, equation (1) is restated as:

$$MAN = f(EXV, INF, LEN, EXR, INT) \quad (2)$$

Restating equation (2) in econometric form:

$$MAN = \alpha_0 + \alpha_1 EXV + \alpha_2 INF + \alpha_3 LEN + \alpha_4 EXR + \alpha_5 INT + U \quad (3)$$

Where MAN: Manufacturing performance (proxy with manufacturing sector to GDP in Nigeria);

EXV: Exchange rate volatility (measured as difference between the current logarithm value of nominal exchange rate and its previous value);

INF: Inflation (measured using consumer price index);

LEN: Bank lending to manufacturing in Nigeria;

EXR: Nominal exchange rate;

INT: Interest rate (proxied using monetary policy rate);

α_0 : the intercept; α_1 to α_5 are the intercepts; and U is error term.

The autoregressive distributed lag (ARDL) estimation technique was used to estimate equation 3. This method ensures that the parameter estimates are non-spurious and non-biased to explaining the phenomenon investigated. The ARDL method will be augmented using the Granger causality technique. This is to provide robust results on the topic. Data is sourced from the Central Bank of Nigeria and the World Bank Development Indicators, covering periods of 1981-2019.

Results

Table 1: Descriptive Statistics

Variable	Mean	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Jarque-Bera
MAN	14.35	21.10	6.55	5.16	-0.05	1.35	4.45
EXV	0.16	1.44	-0.06	0.29	2.83	11.72	175.66
EXR	94.14	306.92	0.62	92.82	0.81	2.85	4.30
INF	19.15	72.84	5.39	17.06	1.78	5.00	27.16
INT	13.08	26.00	6.00	4.05	0.67	4.33	5.80
LEN	553.51	2434.38	2.66	747.04	1.28	3.32	10.85

Source: Author's Compilation

Table 1 shows the descriptive statistics for the data used in this study. Manufacturing productivity averaged 14.35%, whereas exchange rate fluctuation averaged 0.16. Exchange rate averaged 94.14 Naira to 1USD. Mean value for inflation value was 19.15%, while interest rate averaged 13.08%. Bank lending to manufacturing averaged 553.51 billion Naira.

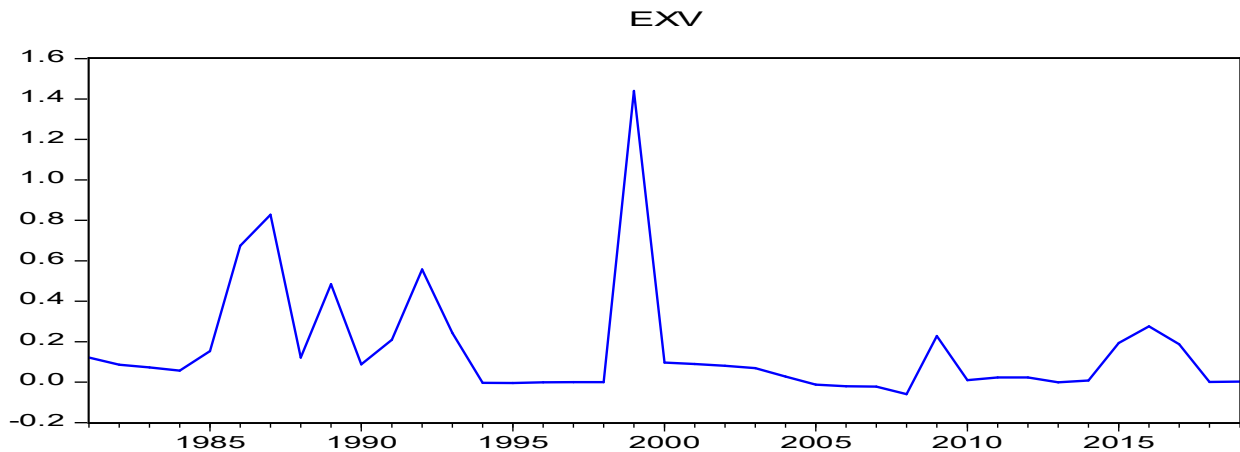


Figure 1: Trend in Exchange rate Fluctuations in Nigeria

Source: Author's Compilation

Figure 1 shows trend in exchange rate volatility in Nigeria, between 1981 and 2019. The figure shows that exchange rate was very volatile between 1985 and 1995, when the foreign exchange market was first deregulated. Afterwards, exchange rate fluctuations have been steady and low. In the year 2000, exchange rate was once again volatile, as the foreign exchange market was further deregulated. Periods of 2001-2019, exchange rate fluctuations have been mild, without serious movements until towards 2019 when its sharp upward movement later died off.

Table 2: Unit root Test Results

Variables	95% Critical values	ADF Test Stat	Order of Integration
MAN	-3.536601	-7.600472	I(1)
EXV	-3.533083	-5.598869	I(0)
INF	-3.574244	-4.290040	I(0)
LEN	-3.536601	-7.034593	I(1)
EXR	-3.536601	-4.504584	I(1)
INT	-3.540328	-5.860623	I(1)

Source: Author's Compilation

Table 2 presents the augmented dickey fuller test for unit root in the datasets used in this study. As shown, from the order of integration results, EXV and INF variables were stationary at levels, while MAN, LEN, EXR and INT variables were stationary at first difference. With various order of integration, the ARDL bonds test is used to examine presence of long run relationship among the variables.

Table 3: Bonds Test Results

Test Statistic	Value	k
F-statistic	5.753050	5
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.26	3.35
5%	2.62	3.79
2.5%	2.96	4.18
1%	3.41	4.68

Source: Author's Compilation

In Table 3, the bonds test shows that the f-statistic (5.753) is greater than the I0 bound value (2.62) and I1 bound value (3.79) at 5% level. This result establishes the presence of long run relationship among the variables.

ARDL Regression Result

The result of the ARDL regression used as major analysis for this paper is presented in Table 4

Table 4: ARDL Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
MAN(-1)	-0.086607	0.175619	-0.493150	0.6264
MAN(-2)	0.638756	0.169489	3.768717	0.0009
MAN(-3)	0.418388	0.149177	2.804650	0.0098
EXV	3.146804	1.027791	3.061714	0.0054
EXV(-1)	-1.462875	0.643744	-2.272449	0.0323
EXR	-0.078099	0.016630	-4.696248	0.0001
EXR(-1)	0.055784	0.016300	3.422400	0.0022
INF	0.039740	0.013016	3.053099	0.0055
LEN	0.004263	0.000765	5.571761	0.0000
INT	-0.140809	0.065131	-2.161924	0.0408
INT(-1)	0.204351	0.061105	3.344246	0.0027
Intercept	-1.981355	1.361124	-1.455676	0.1584
Long run Estimates				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXV	57.154862	147.907376	0.386423	0.7026
EXR	-0.757399	1.909145	-0.396721	0.6951
INF	1.348833	3.620250	0.372580	0.7127
LEN	0.144677	0.386399	0.374423	0.7114
INT	2.156698	5.315549	0.405734	0.6885
Intercept	-67.249914	218.135316	-0.308294	0.7605
Summary Statistics				
R-squared	0.973487	Mean dependent var		13.83734
Adjusted R-squared	0.961335	S.D. dependent var		5.030988
S.E. of regression	0.989266	Akaike info criterion		3.077494
Sum squared resid	23.48753	Schwarz criterion		3.605334
Log likelihood	-43.39490	Hannan-Quinn criter.		3.261724
F-statistic	80.10985	Durbin-Watson stat		1.825497
Prob(F-statistic)	0.000000			

Source: Author's Compilation

Diagnostic analysis in Table 4 validates the estimate. For instance the R-squared of 0.973487 imply that 97 percent of the variation in the performance of manufacturing sector is explained by the joint explanatory variables in the model. Adjusted R-squared is above 95%, which reveals that the model has a strong predictive power. F-probability value is statistically significant at 1%. Hence, the model was rightly specified. With a value of 1.825, Durbin-Watson statistic shows that there is absence of serial autocorrelation in the model.

Furthermore Figure 4 reveals that exchange rate fluctuations had significant impact on manufacturing productivity in Nigeria during the short run, but did not impact significantly on manufacturing in Nigeria during the long run period. In the short run, the immediate impact of exchange rate fluctuation on manufacturing performance was positive; but became negative in the lag period (following year). This finding was not consistent with the apriori expectation from theory where a negative relationship is expected. However, the findings of this study was consistent with the findings of Oyeyinka (2019). The impact of exchange rate fluctuation on manufacturing productivity in the long run is positive. This shows that exchange rate fluctuation did not inhibit manufacturing productivity in Nigeria between 1981 and 2019. This might have been the result of various policies put in place by government to gear up financial development in Nigeria. Note that theory specified by Aghion, Bacchetta, Ranciere and Rogoff (2009) opined that the extent of financial development will dictate the impact of exchange rate fluctuation on economic growth. For instance a lower degree of financial development with high EXRV will aggravate divergence of the economy growth rate while a country with well-developed financial system will neutralise the negative effect of exchange rate fluctuation. This is the experience in Nigeria according to the findings of this paper.

Conversely, nominal exchange rate had negative impact on manufacturing productivity in Nigeria, both in the short and long run period. However while the negative impact in the short run was significant it was insignificant in the long run. It is equally important to point out that the lag of exchange rate was positive. Inflation had positive impacts on performance of the manufacturing sector in Nigeria, but was only significant in the short run. Also, bank lending had positive significant impact on manufacturing sector productivity in Nigeria, during the short run. The long run impact is positive, but not statistically significant. Interest rate impacted negatively on manufacturing productivity in Nigeria during the short run, but had positive insignificant impact on productivity from the sector during the long run period.

Conclusion

Results from this study offers relevant insights needed for an effective exchange rate framework that would promote manufacturing productivity in Nigeria. As shown from the results obtained, exchange rate fluctuation does not pose a serious harm to manufacturing productivity in Nigeria. Since year 2000, exchange rate fluctuation has been minimal, which has helped manufacturing firm owners to make near perfect investment decision based on changes in exchange rate. However, exchange rate impacted negatively on productivity from the manufacturing sector. This is mainly because increase in the foreign exchange adds to the cost of productivity, which in turn would lower the volume of goods to be produced. From the foregoing, it can be clearly noted that exchange rate fluctuations have not been a problem for manufacturing because it has been low over the last 30 years. One can attribute low level of exchange rate to effective exchange rate policies adopted by the CBN over the years. As much as exchange rate has consistently increased, the variations created are minimal. With this, the study recommends that the CBN should endeavour to always manage exchange rate in Nigeria in such a way that its fluctuations are

minimal. *This could be by way of introduction of guided intervening fund to the forest market and ensuring that forex are only allocated to those who need it for positive investment purpose.*

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