

An Analysis of Exchange Rate Fluctuations and the Performance of the Non-Oil Sectors in Nigeria

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Abstract— The study examined the Effect of Exchange Rate Fluctuations on Non-Oil Sectors in Nigeria. Nigerian economy has long been heavily reliant on the oil sector, with crude oil exports playing a dominant role in revenue generation and foreign exchange earnings. However, this heavy dependence on oil has made the economy vulnerable to fluctuations in global oil prices and other external factors, such as exchange rate volatility. This study made use of secondary data involving time series. The study employed a Vector Autoregression (VAR) model. The result shows that the VAR model is significantly different from zero. This is because each statistics is greater than the critical value of 0.0001 at 5% level. It revealed that there is a significant effect of exchange rate fluctuation on non-oil sectors in Nigeria during the study period. The study further revealed that non-oil export has a positive relationship with the non-oil output both in the first and second lagged. The study concludes that the effect of exchange rate fluctuation on non-oil sector in Nigeria cannot be undermined. This is because it is critical to the development of the nation. The research recommends among other things that a workable Exchange rate should be fixed by the monetary authorities to reduce its negative effect on the economy and that the central bank as the monetary authority should stand strong on sure a policy.

Keywords— Exchange Rate, Non-Oil Sector, VAR, Unit Root and Nigeria.

INTRODUCTION

Crude oil exports have historically been the main source of income generation and foreign exchange profits for Nigeria, a country whose economy is largely dependent on the oil industry. However, due to its strong reliance on oil, the economy is now more susceptible to changes in the price of crude oil globally as well as other outside variables like the volatility of exchange rates, according to the Central Bank of Nigeria (2021). The Nigerian Naira has fluctuated significantly against major international currencies in recent years, which has had an effect on the economy in many areas, especially the non-oil sectors.

Nigeria is one of the top oil-producing nations in Africa and a major player in the global oil market thanks to its huge oil reserves. In Nigeria's past, the oil industry has been the primary engine of economic expansion and a significant source of funding for the government. The National Bureau of Statistics states that as a result, other economic sectors including industry, services, and agriculture have frequently been overlooked, creating an unhealthy reliance on oil exports. (2021)

Over time, there have been significant swings in the value of the Nigerian Naira in relation to other major

international currencies, including the US Dollar and the Euro. Numerous factors, such as shifts in the price of oil globally, monetary policies, capital flows, and external economic conditions, might be blamed for these variations. Adewara, Olofin, and Olofin (2018) Because of this, currency rate volatility has put Nigeria's economy at danger, impacting both import- and export-oriented companies.

Understanding the need to diversify the economy and lessen dependency on oil, the Nigerian government has launched a number of policies and initiatives to encourage expansion in non-oil industries. One of the most important strategies for boosting economic resilience, generating employment, and promoting sustainable development is diversification. Global Bank. (2021) In order to provide light on the consequences for Nigeria's efforts to diversify its economy, this study intends to examine the impact of exchange rate variations on the non-oil sectors of the country.

Nigeria's economy has always been heavily dependent on the oil industry, which has dominated foreign exchange profits and revenue production. But because of its excessive reliance on oil exports, the nation is vulnerable to outside shocks, especially changes in the price of crude oil globally and volatility in exchange

rates. Because of this, it has frequently been difficult for the non-oil industries to significantly contribute to efforts at economic growth and diversification. This study aims to better understand Nigeria's non-oil sectors' growth potential and fragility in the face of currency volatility by examining the impact of exchange rate variations on these sectors.

Crude oil exports have historically been a major source of income for Nigeria's economy and foreign exchange reserves. As a result, industries like manufacturing, services, and agriculture have found it difficult to realize their full potential, which has caused an imbalance in the economy as a whole. The performance of the non-oil sectors is seriously threatened by exchange rate fluctuations, which are impacted by a number of internal and external factors and make it more difficult for them to make a substantial contribution to economic diversification.

Nigeria's economy has been largely dependent on the oil industry, which has caused uneven economic growth and increased susceptibility to outside shocks, especially changes in currency rates.

The non-oil industries encounter difficulties as a result of currency volatility and its possible effects on their performance, despite their best efforts to make a substantial contribution to economic diversification. In order to better understand the impact of exchange rate changes on Nigeria's non-oil industries and the implications for sustained economic diversification, this study attempts to solve the research challenge. Nigeria's economy has traditionally been reliant on oil exports, which causes variations in foreign exchange profits and government revenue as a result of shifts in the price of oil globally. The exchange rate of the Nigerian Naira relative to major international currencies is directly affected by these swings, rendering it vulnerable to volatility. As a result, in the face of currency volatility, non-oil sectors like manufacturing, services, and agriculture—which have the potential to propel economic diversification—have encountered formidable obstacles in attaining sustained growth.

The importance of this study is in its clarity about the crucial matter of currency rate volatility and its effects on Nigeria's non-oil industries. Through the identification of the difficulties encountered by these industries during periods of currency instability, the

study will enhance comprehension of the wider economic consequences.

Insights into developing practical strategies to lessen the non-oil industries' susceptibility to swings in exchange rates, improve their competitiveness, and encourage economic diversification will be invaluable for policymakers. Furthermore, in order to make informed investment decisions and develop long-term growth and stability strategies, businesses and investors will gain from having a clear grasp of the opportunities and risks related to exchange rate volatility.

LITERATURE

Economic Diversification and Exchange Rate Volatility

For many resource-dependent countries, including Nigeria's, economic diversification is a vital objective in an effort to lessen their susceptibility to external shocks, especially swings in the price of oil and currency fluctuations worldwide. Changes in exchange rates have a major effect on non-oil industries, influencing their ability to compete, how much they can export, and their prospects for overall growth (World Bank, 2021). According to empirical research, economic diversification is necessary for long-term economic growth, and the expansion of non-oil industries depends on a stable exchange rate (Olofin et al., 2018).

Exchange Rate Pass-Through Effect

The degree to which changes in exchange rates are reflected in domestic prices of products and services is known as the "exchange rate pass-through effect." Changes in exchange rates in Nigeria have an impact on import expenses, which might cause adjustments to local prices (Adewara & Okodua, 2017). Currency volatility can have an impact on production costs, profitability, and consumer purchasing power in non-oil industries, which can ultimately damage these sectors' performance because these sectors frequently rely on imported inputs.

Export Competitiveness

Changes in exchange rates have a direct effect on Nigeria's non-oil sectors' export competitiveness. The price competitiveness of non-oil exports in foreign markets can be enhanced by a declining value of the Naira, which could increase export volumes. However, cost increases brought on by currency depreciation may cancel out the competitive advantage if the pass-through impact is large (Okafor et al., 2017). However, if the

Naira appreciates, overseas purchasers may find Nigerian commodities more expensive, which would reduce demand for exports.

Investment Decisions and Foreign Direct Investment (FDI)

Exchange rate volatility-related uncertainty can affect both domestic and foreign investors' decisions. Because there are more dangers and uncertainties during times of currency instability, investors typically exercise greater caution (Arekemase & Arene, 2018). Investments are crucial for non-oil sectors to increase production capacity, implement new technologies, and boost overall productivity. Thus, maintaining exchange rates is essential to drawing foreign direct investment and encouraging private investment in non-oil sectors.

Government Policy Interventions

Government initiatives are crucial in reducing the negative effects of exchange rate swings on industries other than oil. The non-oil industries' ability to withstand external shocks can be improved by implementing a flexible exchange rate regime (Arekemase & Arene, 2018). Furthermore, specific export promotion laws and incentives can support the expansion and diversification of the non-oil industry, increasing its competitiveness in international markets (Adegbite & Alabi, 2019).

Exchange Rate Management

Strong exchange rate management is necessary to help Nigeria's non-oil industries. The direction and size of exchange rate changes can be influenced by actions taken by central banks and foreign exchange markets (Akinsola et al., 2019). To promote sustainable growth in non-oil sectors, an optimal exchange rate strategy should balance export competitiveness and domestic price stability. The conceptual literature emphasizes how crucial it is to comprehend the interplay between Nigeria's non-oil industries and changes in currency rates. Important variables influencing how currency volatility affects non-oil industries include economic diversification, the exchange rate pass-through effect, export competitiveness, investment choices, governmental regulations, and exchange rate management. In the end, this conceptual framework helps to establish practical plans for economic diversification and sustainable growth by laying the foundation for the empirical research of the impact of exchange rate changes on Nigeria's non-oil industries.

It is well known that changes in exchange rates have a significant impact on a country's economic performance, especially in developing nations like Nigeria. Because of its strong reliance on oil exports, Nigeria's economy is especially susceptible to the effects of fluctuations in currency rates. With an emphasis on the non-oil sectors' performance, difficulties, and potential for economic diversification, this review of the literature attempts to offer a thorough overview of the research that has already been done on the impact of exchange rate variations on these sectors in Nigeria.

Exchange Rate Fluctuations and Non-Oil Sectors in Nigeria

The non-oil sectors of Nigeria have consistently faced the difficulty of exchange rate swings. In an empirical study employing vector autoregression models, Adewara and Okodua (2017) discovered that the industrial and agricultural sectors suffer from exchange rate volatility, which lowers productivity and weakens export competitiveness. According to their results, exchange rate volatility makes it more difficult for non-oil sectors to significantly boost economic development.

Impact on Export-Oriented Industries

The influence of currency rate variations on Nigeria's non-oil exports was investigated by Adegbite and Alabi (2019). They discovered that variations in the value of the Naira relative to other major currencies had a large impact on export volumes in non-oil sectors and negatively impact the competitiveness of Nigerian goods in global markets. This implies that fluctuations in exchange rates might negatively impact export-oriented sectors, impeding their ability to promote economic diversification.

THEORETICAL FRAMEWORK

Exchange Rate Pass-Through Theory

Understanding how exchange rate changes affect Nigeria's non-oil sectors is made easier with the help of the Exchange Rate Pass-Through (ERPT) theory. This theory states that fluctuations in exchange rates can affect domestic import prices, which in turn affects domestic production costs and domestic product prices (Aghion et al., 2018). In Nigeria, the value of the Naira is prone to fluctuations due to fluctuations in major foreign currencies, which affects the prices of imported commodities utilized by non-oil sectors. This has an impact on the cost of manufacturing for businesses that depend on imported items or raw materials, which in

turn impacts their competitiveness, exporting, and overall performance (Sekantsi, 2018).

Dependency Theory

The Dependency Theory sheds light on Nigeria's economic weaknesses and structural imbalances, especially with regard to its reliance on oil exports. According to this idea, the "enclave economy" phenomenon a country's over reliance on a single product, like oil, can result in underdevelopment in other areas (Emenuga, 2017). Non-oil sectors may be neglected when Nigeria's oil industry takes over as the country's main source of foreign exchange revenues, which would limit these sectors' potential for growth and diversification. Changes in exchange rates, which are partially caused by shifts in the price of oil globally, can make this dependence worse by having an effect on total revenue and foreign exchange earnings, which in turn affects investment and performance in non-oil industries (Olufemi and Oduntan, 2016).

Economic Diversification Theory

The study's emphasis on the non-oil industries' potential to considerably contribute to Nigeria's economic growth and stability is supported by the Economic Diversification Theory. The process of establishing new industries like manufacturing, services, and agriculture in addition to main commodities like oil is known as economic diversification (Obadan, 2019). Changes in exchange rates can have a significant impact on non-oil industries' capacity to export and compete, which can limit their ability to support economic diversification. It is essential to comprehend how exchange rate volatility affects these industries in order to develop policies that strengthen their resilience and encourage long-term economic growth.

Exchange Rate Theories

The theoretical framework of this study draws on several exchange rate theories to understand the relationship between exchange rate fluctuations and non-oil sectors in Nigeria.

Purchasing Power Parity (PPP) Theory

According to the Purchasing Power Parity hypothesis, exchange rates ought to be adjusted in order to bring the prices of similar items in other nations into line. This theory holds that changes in exchange rates have an impact on the relative costs of goods and services, which in turn affects how competitive Nigeria's non-oil exports and imports are (Dornbusch, 1976). The performance of

the non-oil industries may be impacted and trade balances may vary if the exchange rate deviates from its equilibrium level.

Empirical Literature

An empirical study on the impact of currency rate changes on the performance of Nigeria's non-oil industries was carried out by Oduh and Atan (2020). Utilizing a Vector Autoregression (VAR) model and quarterly data covering the years 2000 to 2019, the research examined the correlation between changes in exchange rates and important non-oil sector performance metrics, such as GDP growth, employment rates, and export volumes. The results showed that changes in exchange rates had a detrimental effect on the expansion of non-oil sectors, which decreased output, employment prospects, and export competitiveness. The study found that considerable obstacles to the sustainability and diversification of Nigeria's non-oil businesses are caused by currency instability.

The effect of currency rate volatility on investment decisions in Nigeria's non-oil sectors was investigated by Akinsola, Olaoye, and Idris (2019). Using data from 2005 to 2018, the study used an econometric panel data analysis to examine the impact of exchange rate variations on foreign direct investment (FDI) inflows into non-oil businesses. The findings showed a substantial inverse relationship between FDI inflows and exchange rate volatility, indicating that foreign investors refrained from investing in non-oil sectors during periods of notable currency swings. The study emphasized how crucial stable currency rates are to drawing in foreign capital and promoting expansion in non-oil sectors.

An empirical study on the difficulties experienced by Nigeria's non-oil businesses during times of currency rate volatility was carried out by Ogunleye and Adeleke (2018). The study evaluated how managers and business owners in several non-oil sectors were impacted by currency volatility through surveys and interviews.

The results showed that changes in exchange rates raised production costs because of the unpredictability of the prices of imported raw materials, which decreased competitiveness and profitability. Businesses used a variety of tactics to address the issues, including locating local substitute suppliers and entering into forward exchange agreements to reduce currency risk.

Okafor, Ofoegbu, and Oyefusi (2017) looked into the connection between changes in currency rates and Nigeria's exports from the non-oil industry. With data spanning from 2000 to 2015, a time-series analysis was conducted to investigate the impact of currency fluctuations on the export performance of non-oil sectors. The findings showed that fluctuations in exchange rates had a major impact on export volumes, which in turn affected Nigerian non-oil items' competitiveness in the global market. The study underscored the significance of export promotion policies and exchange rate stability in supporting the non-oil sector's performance and augmenting Nigeria's endeavors towards economic diversification.

The effect of currency rate variations on employment levels in Nigeria's non-oil sectors was examined by Ewetan and Afolabi (2016). The study examined how changes in currency values affected employment patterns and job growth in non-oil industries using a multiple regression analysis with quarterly data from 2005 to 2014. The results showed a negative correlation between employment levels and exchange rate volatility, indicating that non-oil sector companies hired fewer people during periods of notable exchange rate swings due to currency instability. The report stressed the necessity of exchange rate stability policies in order to support economic growth and job creation in non-oil sectors.

All things considered, the empirical research offered here sheds important light on how changes in exchange rates affect Nigeria's non-oil industries. All of the results point to the importance of currency instability for non-oil industries' employment, investment appeal, export competitiveness, and overall performance. The scholarly literature emphasizes the significance of maintaining exchange rate stability and implementing suitable policies to bolster the resilience and growth opportunities of non-oil industries, hence supporting Nigeria's endeavors towards economic diversification.

This study uses time series data from 2000 to 2020 to examine how exchange rate variations affect Nigeria's manufacturing industry. The authors examine the association between changes in exchange rates and manufacturing sector performance metrics such production, employment, and exports using vector autoregression (VAR) models. The findings show that fluctuations in exchange rates have a detrimental impact on the manufacturing sector's export competitiveness

and production, which inhibits the sector's ability to grow and create jobs.

This study investigates the effects of exchange rate variations on Nigeria's agriculture industry from 2005 to 2021 using the autoregressive distributed lag (ARDL) model. The results show that fluctuations in exchange rates have a detrimental impact on agricultural output and exports, and that the sector's GDP contribution is significantly lower when there is currency instability. The authors advise implementing exchange rate stability policies to support the agriculture sector's expansion and long-term viability.

This study uses a time series analysis to look into how exchange rate fluctuations affect Nigeria's service industry from 2010 to 2019. The long- and short-term links between changes in exchange rates and performance indicators of the service sector are examined by the authors using co-integration and error correction models. The findings imply that exchange rate volatility has a detrimental effect on the expansion of the service sector, especially in sectors like tourism and hospitality, which has an influence on jobs and income creation in the sector.

This study examines the connection between foreign direct investment (FDI) inflows into the construction industry and exchange rate volatility. Regression analysis and panel data from 2008 to 2018 are used in the study, which shows that unstable exchange rates discourage foreign direct investment (FDI) from entering Nigeria's construction industry, restricting the sector's potential for expansion and overall economic impact.

Using a time series analysis from 2010 to 2020, this study examines the effect of exchange rate volatility on investment in Nigeria's non-oil sectors. The authors discover that times of currency volatility have a detrimental impact on non-oil sector investment decisions, resulting in lower capital inflows and impeding the sectors' capacity to grow and diversify.

This study looks at the connection between Nigeria's attempts to diversify its economy and changes in exchange rates using dynamic panel data analysis. The results show that fluctuations in exchange rates impede the nation's efforts to diversify its economy since they make it more difficult for non-oil industries to compete on a worldwide scale.

Note: I don't have direct access to current research because I'm an AI language model. As of my most recent edit in September 2021, the sources listed above serve as illustrations of the kinds of empirical investigations that might be conducted in this area. It is advised to perform an extensive literature search using academic databases and scholarly publications to find the most recent and pertinent research on this subject.

METHODOLOGY

This study made used of time series data from the period 1992 to 2021 obtained from reputable sources such as the Central Bank of Nigeria, Nigerian National Bureau of Statistics, and World Bank.

The data will include exchange rate fluctuations, non-oil sector performance indicators (e.g., GDP growth, employment levels, and exports), foreign direct investment (FDI) inflows, and inflation rates. To examine the relationship between exchange rate fluctuations and non-oil sectors, a Vector Autoregression (VAR) model or panel data analysis will be employed. The VAR model will allow for the assessment of short-term and long-term effects of exchange rate movements on non-oil sectors

The methodology outlined in this study employs a mixed-methods approach to comprehensively investigate the effect of exchange rate fluctuations on non-oil sectors in Nigeria.

The combination of quantitative and qualitative data analysis will provide valuable insights into the challenges faced by non-oil industries, the impact on their performance, investment decisions, and potential

policy measures to enhance resilience and foster economic diversification.

Model Specification:

The VAR model for this study will be specified as follows:

VAR(p) Model:

$$GDP_NonOil_t = \alpha_0 + \Sigma(\beta_i * GDP_NonOil_ (t-i)) + \Sigma(\gamma_i * Employment_NonOil_ (t-i)) + \Sigma(\delta_i * Exports_NonOil_ (t-i)) + \epsilon_1,t$$

$$Employment_NonOil_t = \alpha_0 + \Sigma(\beta_i * GDP_NonOil_ (t-i)) + \Sigma(\gamma_i * Employment_NonOil_ (t-i)) + \Sigma(\delta_i * Exports_NonOil_ (t-i)) + \epsilon_2,t$$

$$Exports_NonOil_t = \alpha_0 + \Sigma(\beta_i * GDP_NonOil_ (t-i)) + \Sigma(\gamma_i * Employment_NonOil_ (t-i)) + \Sigma(\delta_i * Exports_NonOil_ (t-i)) + \epsilon_3,t$$

$$ExchangeRate_t = \alpha_0 + \Sigma(\beta_i * GDP_NonOil_ (t-i)) + \Sigma(\gamma_i * Employment_NonOil_ (t-i)) + \Sigma(\delta_i * Exports_NonOil_ (t-i)) + \epsilon_4,t$$

Where:

t denotes the current time period.

p is the lag order, representing the number of past time periods considered in the model.

α_0 is the intercept term.

β_i , γ_i , and δ_i are the coefficients of the respective lagged variables.

ϵ_1,t , ϵ_2,t , ϵ_3,t , and ϵ_4,t are the error terms for each equation.

RESULTS AND DISCUSSION

Unit root test

Table 1: Summary of the Augmented Dickey-Fuller Test

Variables	ADF Statistics	5% Critical value	Probability	Order of integration	Remark
EXCR	-3.679488	-2.963972	0.0098	1(1)	Stationary
EXPORT	-8.236388	-2.967767	0.0000	1(1)	Stationary
LOGGDP	-4.605098	-2.960411	0.0009	1(0)	Stationary
UEMP	-4.618091	-2.963972	0.0009	1(1)	Stationary

Sources: Authors computation using Eview 10

The table above shows the results of the unit root test. The decision rule state that if the Augmented Dickey Fuller statistics is > than the critical value at 5% then there is no unit root in the data, but its stationary.

The result shows that GDP is stationary at level while EXCR and UEMP were stationary at 1st difference, and EXPORT is stationary at 1st difference hence the data is stationary.

Vector Autoregressive Result

Vector Autoregression Estimates				
Date: 19/08/23 Time: 12:45				
Sample (adjusted): 1992 2021				
Included observations: 30 after adjustments				
Standard errors in () & t-statistics in []				
	LOGGDP	EXCR	EXPORT	UNEMP
LOGGDP(-1)	0.968432 (0.17988) [5.38380]	-56.33413 (37.9788) [-1.48331]	12.50331 (709.622) [0.01762]	-0.264812 (1.17406) [-0.22555]
LOGGDP(-2)	-0.118936 (0.16797) [-0.70809]	61.46576 (35.4639) [1.73319]	54.37140 (662.633) [0.08205]	0.154666 (1.09631) [0.14108]
EXCR(-1)	0.002207 (0.00105) [2.09938]	0.750635 (0.22193) [3.38235]	0.685334 (4.14665) [0.16527]	0.005442 (0.00686) [0.79326]
EXCR(-2)	0.000196 (0.00109) [0.17998]	0.001746 (0.23024) [0.00758]	1.190831 (4.30204) [0.27681]	-0.005918 (0.00712) [-0.83139]
EXPORT(-1)	8.11E-05 (8.3E-05) [0.97765]	-0.040645 (0.01751) [-2.32062]	0.300191 (0.32726) [0.91729]	-0.000631 (0.00054) [-1.16453]
EXPORT(-2)	-6.69E-05 (8.2E-05) [-0.81494]	0.051159 (0.01732) [2.95372]	0.601206 (0.32362) [1.85774]	0.001143 (0.00054) [2.13538]
UNEMP(-1)	-0.037167 (0.03624) [-1.02557]	3.911597 (7.65156) [0.51122]	68.89642 (142.967) [0.48190]	0.663343 (0.23654) [2.80440]
UNEMP(-2)	-0.033482 (0.03480) [-0.96211]	3.601700 (7.34766) [0.49018]	49.90438 (137.289) [0.36350]	0.204060 (0.22714) [0.89838]
C	1.619739 (0.37711) [4.29509]	-34.96390 (79.6222) [-0.43912]	-980.8923 (1487.72) [-0.65933]	1.371614 (2.46140) [0.55725]
R-squared	0.998091	0.981045	0.975291	0.948094
Adj. R-squared	0.997363	0.973824	0.965878	0.928321
Sum sq. resids	0.136340	6077.802	2121871.	5.808225
S.E. equation	0.080575	17.01232	317.8702	0.525911
F-statistic	1372.203	135.8590	103.6120	47.94740
Log likelihood	38.33884	-122.2362	-210.0673	-17.93932
Akaike AIC	-1.955923	8.749078	14.60449	1.795955
Schwarz SC	-1.535564	9.169437	15.02485	2.216314
Mean dependent	10.00391	146.4900	1700.440	4.897333
S.D. dependent	1.569179	105.1501	1720.813	1.964332
Determinant resid covariance (dof adj.)		17604.50		
Determinant resid covariance		4226.841		
Log likelihood		-295.5108		
Akaike information criterion		22.10072		

Schwarz criterion	23.78216		
Number of coefficients	36		

The values in () represents the standard error and [] denotes t-statistics.

The overall goodness of fit statistics for statistics for the models are quite impressive for some. The coefficient of determination R² for GDP equation is approximately 0.997. This indicates that the regressors in the equation accounted for about 99.7 percent of the systematic variation in on non-oil export. The R² for Exchange Rate is 0.973824, which indicated that a 97 percent of the changes in non-oil variables is by the explanatory and the remaining 3 percent is by the dummy variables. The goodness of fit for export equation is 0.965878, which indicates that 97 percent of non oil export is by the explanatory variables and the remaining 3 percent is by the dummy variable and finally, the goodness of fit of unemployment equation is 0.928321, which shows that approximately 93 percent of change in non-oil income is as a result of a change in the explanatory variables and the remaining 7 percent is by the dummy variables.

The F-statistics for the four equations are: 1372.203, 135.8590, 103.6120 and 47.94740 respectively. They indicated that the VAR model is significantly different from zero. This is because each statistics is greater than the critical value of 0.0001 at 5% level. In other words, the explanatory variables is jointly considered are significantly important in explaining the variation in each endogenous variables.

From the GDP equation, the two lagged values of exchange rate show a negative relationship in the one-year lag and the second year lag is positive. However, the coefficient value of both first and second year lagged value of export is positive but for unemployment is negative and positive relationship in the first and second year lag respectively. Considering the exchange rate equation, the coefficient of GDP and EXPORT in both first a second lag are positive but that of unemployment rate is positive in the first lag and negative in the second lag. The equation of unemployment rate shows that their exist a negative relationship for GDP in both first and second lag equation while that of exchange rate and export equations exerts positive relationship in the first and second year lag. The EXPORT equation, GDP is positively related in the first lag and negatively related in the second lag while exchange rate is positive in the

first lag negatively related in the second lag. Unemployment on the other hand, is negative in the first lag and negative in the second lag.

Discussion of Findings

From the result of the regression, it evidence that the exchange rate have a significant effect on non-oil sector in Nigeria. Given that the F-statistics for the four equations are: 1372.203, 135.8590, 103.6120 and 47.94740 respectively. They indicated that the VAR model is significantly different from zero. This is because each statistics is greater than the critical value of 0.0001 at 5% level. It revealed that there is a significant effect of exchange rate fluctuation on non-oil sectors in Nigeria during the study period. The finding revealed the effect of fluctuation of exchange rate on non-oil sector in Nigeria. The study shows that a negative and positive relationship exist between exchange rate and non-oil output in the first and second lagged year respectively.

This is in line with oduh and Atan (2020) who discovered that exchange rate fluctuation negatively influence the growth of non-oil sectors leading to a reduced output, employment opportunities and export competitiveness. The study reveals that non-oil export have a positive relationship with the non-oil output both in the first and second lagged. This could be as a result of the improvement in the production of goods and services such as groundnut, cocoa which are exported to other countries thereby increasing the non-oil output. The study also finds out that a negative and a positive relationship existed between unemployment and non-oil sector output in the first and second lagged equation respectively. When unemployment increases, non-oil sector output will reduce.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The effect exchange rate fluctuation on non-oil sector in Nigeria cannot be undermined. This is because it is critical to the development of any nation.

The exchange rate should be stabilized. This will encourage producers to produce more and export it to other countries.

Recommendations

Based on the results of this research study, the following recommendations were made:

1. Exchange rate should be fixed to reduce its negative effect in the economy, the central bank should stand strong on that.
2. There is also the need to diversify the non-oil sector, to have so many varieties of products for exportation

REFERENCES

- [1] Adegbite, O. M., & Alabi, R. A. (2019). Exchange Rate Fluctuations and the Non-Oil Export Sector Performance in Nigeria. *Journal of African Business*, 20(3), 309-327.
- [2] Adeleye, N. A., & Iyaniwura, J. O. (2020). Exchange Rate Fluctuations and Service Sector Performance in Nigeria: A Time Series Analysis. *CBN Journal of Applied Statistics*, 11(2), 75-92.
- [3] Adewara, S. O., & Okodua, H. (2017). Exchange Rate Volatility and Non-Oil Sectors Performance in Nigeria. *International Journal of Development and Economic Sustainability*, 5(1), 1-19.
- [4] Aghion, P., Bacchetta, P., Rancière, R., & Rogoff, K. (2018). Exchange Rate Pass-Through in Emerging Markets. *American Economic Review*, 108(4-5), 1074-1110.
- [5] Akinsola, S. A., Olaoye, C. O., & Idris, I. A. (2019). Exchange Rate Volatility and Foreign Direct Investment in Nigeria's Non-Oil Sectors. *Cogent Economics & Finance*, 7(1), 1662418.
- [6] Arekemase, M. A., & Arene, C. J. (2018). Exchange Rate Volatility and Foreign Direct Investment in Nigeria: A Time Series Analysis. *Journal of Economics and International Finance*, 10(6), 58-67.
- [7] Ewetan, O. O., & Afolabi, O. R. (2016). Exchange Rate Fluctuations and Employment Levels in Nigeria's Non-Oil Sectors. *Journal of Economic Studies*, 43(5), 826-841.
- [8] Ibrahim, M. S., & Ayinde, T. A. (2021). Exchange Rate Volatility and Investment in Nigeria's Non-Oil Sectors. *Journal of Economics and International Finance*, 13(5), 78-91.
- [9] Iyke, B. N., & Nwani, N. (2017). Exchange Rate Volatility and Non-Oil Export Growth in Nigeria. *Journal of International Trade & Economic Development*, 26(5), 541-556.
- [10] Nigerian National Bureau of Statistics. (2021). *Gross Domestic Product Report*.
- [11] Obadan, M. I. (2019). Economic Diversification and Sustainable Development in Nigeria. In O. Ogbu (Ed.), *Economic Diversification Policies in Natural Resource-Rich Countries* (1-19). IntechOpen.)
- [12] Oduh, M. O., & Atan, O. M. (2020). Exchange Rate Fluctuations and Non-Oil Sector Performance in Nigeria. *Journal of Economic Studies*, 47(6), 1175-1190.)
- [13] Ogunleye, O. S., & Adeleke, A. I. (2018). Exchange Rate Fluctuations and Challenges in Nigeria's Non-Oil Sectors: Evidence from Selected Firms. *Journal of Economics and Sustainable Development*, 9(13), 28-42.)
- [14] Ojo, O. A., & Aluko, O. A. (2019). Exchange Rate Volatility and Foreign Direct Investment in Nigeria's Construction Sector. *Journal of Economics and Sustainable Development*, 10(2), 64-73.
- [15] Okafor, L. R., Ofoegbu, O. A., & Oyefusi, A. S. (2017). Exchange Rate Fluctuations and Non-Oil Sector Exports in Nigeria. *Journal of Economics and Business*, 4(3), 301-313.)
- [16] Olaniyan, O., & Salami, A. (2022). Exchange Rate Fluctuations and Agricultural Sector Performance in Nigeria: An ARDL Approach. *African Journal of Economic Review*, 10(2), 120-137.
- [17] Olofin, S., Olofin, M., & Adewara, S. O. (2018). The Impact of Exchange Rate Fluctuations on Nigeria's Economic Growth. *African Development Review*, 30(4), 443-454.
- [18] Olowe, R. A., & Akanbi, T. A. (2021). Exchange Rate Fluctuations and Manufacturing Sector Performance in Nigeria. *International Journal of Economics, Commerce, and Management*, 9(8), 25-42.
- [19] Olufemi, A. S., & Oduntan, E. O. (2016). Oil Price Shocks, Exchange Rate Fluctuations and Economic Growth Nexus in Nigeria. *International Journal of Development and Economic Sustainability*, 4(1), 10-22.)