# CASUAL NEXUS BETWEEN EXCHANGE RATE AND GROSS DOMESTIC PRODUCT (GDP) ON NIGERIA

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### - ABSTRACT-

This study is to find the causal nexus between exchange rate and GDP on Nigeria. The objectives of this study is to study the trend and growth rates of gross domestic product (GDP) and exchange rate in Nigeria from the year 2010 to the year 2018.and check if there is any causal relationship exists between gross domestic product (GDP) and exchange rate in Nigerian economy for the same period. Empirical works based on time series data assume that the underlying time series is stationary. As a preliminary process, graphs are also used to assess the nature of the data series. Then the time series properties of variables are examined using Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests. The procedure tests a null of no causal relationship as against the alternative of causality. A uni-directional causality is established if GDP causes Exchange rate and not vice versa, while a bi-directional causality is established if causality exist between the two series and runs from GDP to exchange rate and vice versa. From the result above, it indicates acceptance of null hypothesis in both situations and concludes no causal relationship between GDP and exchange rate in Nigeria.

## **1.0 INTRODUCTION**

Nowadays, the topics related to exchange rate polices received foremost wider attention among the macroeconomic researches in Nigeria. This is often not shocking given its macro-economic importance particularly during an extremely import dependent economy as Nigeria (Olisadebe, 1995:20). Political economy policy formulation could be a method by that the agencies chargeable for the conduct of economic policies manipulate a collection of instrumental variables so as to realize some need objectives.Exchange rate policy involves selecting wherever foreign dealings can come about (Obadan, 1996). Charge per unit policy is thus a part of political economy management policies the financial authorities in any given economy uses to realize internal balance in medium run. Specifically internal balance means the extent of economic activity that's per satisfactory management of inflation. On the contrary, external or property accounting deficit supported on lasting basis expected capital influx.

## 2.0 REVIEW OF LITERATURE

The empirical literature regarding the effect of exchange rate on economic growth is unsettled and studying from previous literature on the exchange rate volatility and its effects on the real economy is crucial.

**Mundell (1961)** and **McKinnon (1963)** developed the Optimal Currency Area (OCA) theory, which is more concerned about the stabilization of the businesses and trade. According to the theory, a fixed exchange rate regime can increase trade and output growth when uncertainty is fixed, and based on these the concepts of the equilibrium of shocks, the level at which the economy is open, and labour market mobility. The theory, postulate that a fixed exchange rate regime can increase trade and output growth by reducing exchange rate uncertainty and thus the cost of hedging, and also boost investment as a result of low-interest rates.

**Obaseki and Bello (1996)** believe that a flexible exchange rate mechanism should be adopted to correct a perceived overvaluation of the Naira, stimulate the external sector, ensure competitiveness of the economy and above all secure a realistic exchange rate. In other words, the movement from a fixed regime to a flexible regime was to stimulate growth and maintain a healthy external balance, which is what is generally referred to as macroeconomic stability.

**Broda and Romails (2003)** found that real rate of exchange volatility depresses trade differentiated merchandise. After taking into consideration the direction of causality, they determined that a 10percent increase in volatility depresses differentiated product trade by zero.7 percent, whereas a ten % increase in trade reduces rate of exchange volatility by zero.3 percent.

Aliyu et al (2009) examined rate pass-through in Nigeria for the period 1986 to 2007. Quarterly series was utilized and a vector Error Correction Model estimation was utilized in the estimation method. The authors found that rate pass-through in Nigeria throughout the amount into account was low and declined on the value chain, which part overturns the standard knowledge within the literature that rate pass-through is always significantly higher in developing countries than developed countries. The authors conclude that within the end of the day, suffer doubtless increase and financial policy ought to be designed to accommodate the impact.

**Englema and Aliyu (2009)** evaluated whether or not African nation is prepared to adopt inflation targeting (IT). It thought-about conditions for the flourishing implementation of IT so centered on whether or not one specific precondition of associate through empirical observation stable financial the mechanism is sensible. A vector autoregressive (VAR) model was applied victimization elite financial policy and different political economy variables to explore the varied channels victimization the creator relation tests, impulse responses, and variance decompositions. Results showed that inflation in African nation is impassive to financial transmission variables within the model. Specifically, the weak link between costs and credit and rate of interest channels were established. However, proof of a robust inverse link between the rate and costs was found within the model. They urged rate pass-through on the amount of costs within the economy and more recommends the pursuance of IT in African nation.

**Rogoff (2009)** measured exchange rate changes have pervasive impacts, with consequences for prices, wages, interest rates, level of production, and employment opportunities. He pointed out that the collapse of Bretton Woods System, gave rise to incessant and ever-increasing fluctuations in their exchange rates, particularly short-term volatility has been on an upsurge sequel to the shift from fixed to the flexible exchange rate in the early 1970s and thereafter. High volatility and sudden changes in the exchange rate is one of the obstacles for the success of the macroeconomic policy.

**Imoisi et.al (2010)** examined the impact of interest and exchange rates on the Nigerian economy from 1975 to 2008. The study employs the standard least sq. (OLS) technique within the analysis however because of the actual fact that information don't seem to be stationary, a unit root check was employed; it any resorted to co-integration analysis that establishes the existence of a protracted run relationship between the variables within the models. From the findings, a rise in charge per unit retards investment and afterwards economic growth; and therefore the lag one in all charge per unit shows the expected positive sign, implying that depreciation in charge per unit retarded growth from 1975 to 2008.

**De Vita and Kyaw** (2011) argued that the choice of exchange rate regime does not have direct effects on the long-term growth in developing countries and in the long run, market-based or fixed exchange rate dynamism does not have a significant impact on growth.

**Benhima (2012)** showed that in developing countries, the markets adjust when of the fixed exchange rate was introduce. He opined that given that a currency is pegged to the US dollars only, it may hinder its economic development; this is because as the higher the degree of dollarization, the more likely it will show a negative effect on growth.

**Umoru and Odjegba**, (2013) analyzed the relationship between exchange rate misalignment and balance of payments (BOP) mal-adjustment in Nigeria over the sample period of 1973 to 2012 using the vector error correction econometric modelling technique and Granger Causality Tests. The study revealed that exchange rate misalignment exhibited a positive impact on Nigeria's balance of payments position. The Granger pair-wise causality test result indicated a unidirectional causality running from exchange rate misalignment to balance of payments adjustment in Nigeria at the 1 per cent level. The inconsistency in the research results of the various studies reviewed therefore motivated this study.

Alayande (2014) studied the connection between charges per unit and its potential determinants victimization the unit root and granger causality take a look at for the amount of 1980 to 2013. The results of the study showed that charge per unit is extremely vital, followed by modification in oil value, growth in finances, interchange reserves, charge per unit, rate of inflation and alter available market. The study suggested that it'll be higher for policy researchers to appear at alternative variables before creating any future prediction on charge per unit and provides correct observance if there are any slight changes in alternative variables to assist policy makers

**Uddin et.al (2014)** looked into the connection between rate of exchange (ER) and economic process (EG) proxied by Real Gross Domestic Product (RGDP) in Asian country for a amount of forty one year's ranges from 1973 to 2013 by victimization statistic political economy technique. The empirical results show that there's a big correlational statistics between exchange rate and economic growth. The results conjointly advocate the presence of long equilibrium relationship between exchange rate and economic growth. This can be proved from Granger's relation check that there's a bi-directional relation runs through ER to EG and EG to ER.

**Oleka et.al (2014)** analysed the impact of interchange rate on the expansion of Nigerian economy for the periods 2000 to 2014. The GDP is employed as variable quantity indicating economic process of Federal

Republic of Nigeria. Whereas freelance variables like funds, rate of inflation, employment rate and interchange rates were used as economic (performance) indicators. The result unconcealed that there's variation on funds and Nigerian {monetary unit} rate of exchange; therefore the monetary policy instruments weren't efficacious within the attainment of value and exchange rate stability in Federal Republic of Nigeria.

Adelowokan et.al (2015) assessed the result of charge per unit volatility on investment and growth in Nigeria over the amount of 1986 to 2014. The vector error correction methodology, impulse responses operate, co-integration and increased Dickey Fuller (ADF) take a look at for stationarity were utilized to capture the interactions between the variables. The results ensure the existence of end of the day relationship between charge per unit, investment, rate, inflation and growth. Finally the results show that charge per unit volatility encompasses a negative result with investment and growth whereas charge per unit volatility encompasses a positive relationship with inflation and rate in Nigeria.

Azu and Nasiri (2015) explored the connection between real rate and economic process applying those variables that adjudged to create up equilibrium rate thereby shaping however reticulate area unit RER, GDP, EXP, IMP, FER and FDI. Analysing the information mistreatment power unit technique, supported the prevailing scenario in Nigerian economy inside these amount, one will imagine that RER fluctuation was considerably controlled by its positive relation with real import likewise as its negative regard to real gross domestic product and foreign direct investment. Similarly, gross domestic product area unit completely controlled by decreasing rate, increasing previous gross domestic product, FER and FDI. Nigerian economic process inside these amount were characterized by property growth increased by property increase in these factors.

**Owoundi** (2015) examined the effects of wrong exchange rate policy on growth in Sub-Saharan Africa. Using Bayesian estimation techniques, the study concluded that undervaluation of the exchange rate has an insignificant effect on output and even a change in the regime has no significant impact on economic growth.

Akinlo and Lawal (2015) investigated the effect of exchange rate on industrial production in Nigeria economy employing the vector error correction mechanism. The results shows that the exchange rate and industrial production has a long run relationship while the depreciation of the exchange rate does not impact on the extent of industrial production. The study further draws that money supply shocks explain the large variation in industrial production fluctuations both in the long run and the short run. The two conclusions drawn from this study can however be contradictory. Increasing money supply implies expansionary monetary policy which the study recommends also exchange rate depreciation is favourable in the long run; but given that there is capital mobility, expansionary monetary policy in the face of exchange rate depreciation is ineffective following the trinity Mundell-Fleming model.

Lawal et.al, (2016) Since Nigeria's independence in October 1960, her financial authorities have smartly pursued the objectives of internal and external equalization in an exceedingly bid to boost the quality of living of her subject, alleviate impoverishment and acquire economic and political power, stability and status. They did this by directly adjusting the exchange rate of the domestic Recent research worker on rate of exchange theories relies on the financial and also the plus market or portfolio balance approaches to the balance of payments, and views the rate of exchange, for the foremost half, as a strictly money spectacle. One amongst the earliest theories on rate of exchange state that trade flows contribute to the rate of exchange movement within the long-standing time currency vis-a-vis the peculiar and prevailing economic things.

Lawal et.al. 2016, this theory hypothesizes that exchange rates square measure determined within the method of equalization the stock or total demand and provide of cash in every economy. The financial approach proposes that the nominal demand for cash is constant within the long-term and it's completely associated with the extent of nominal value however reciprocally associated with the rate of interest. The nation's funds is adequate its financial base multiply by the number. The financial base of a nation's is adequate the national credit created by its financial agency and its international reserve. Unless glad domestically, Associate in Nursing excess provide of cash within the economy can leads to Associate in Nursing outflow of reserves, or a balance of payment shortage below fastened rate of exchanges and a depreciation of a currency (without any international flow of reserves) below floating exchange rate regime. The alternative takes place with Associate in nursing excess demand for cash within the economy.

**Okorontah and Odoemena (2016)** reveal there is no strong relationship between exchange rate and economic growth in Nigeria. They strong suggested that Nigeria improves its competitive capacity in the international market through export diversification.

Amassoma and Odeniyi (2016) Attributed to the power of the Nigerian government to effectively regulate another necessary economics variables which may exasperate rate that has thereby helped curtail the consequences of rate fluctuation throughout the study amount. This can be a sign that monetary authorities might have initiated policies that helped absorb the influence of exchange rate fluctuation on economic growth

in Nigeria. Therefore, the government should encourage domestic production of goods and services for Naira exchange rate appreciation and generally to promote economic growth in Nigeria. More so, to maintain and sustain the exchange rate and economic stability. In the same vein, the government should pay more attention to other more volatile macroeconomic variables like oil price and inflation rate in Nigeria.

Anyanwu et.al. (2017) revealed the impact assessment between charge per unit policy and economic process includes a vital impact on real gross domestic product and there's a positive however insignificant relationship between real exchange rate and real gross domestic product. Regardless of the positive and insignificant relationship between real exchange rate and manufacturing capacity utilization, real exchange rate significantly impacts manufacturing capacity utilization within the period studied and government agency like Central Bank of Nigeria should put in place a strict foreign exchange policy control to ensure that the value of Naira against other currency is properly determined. Unethical practices by banks leading to depreciation of the Naira should be investigated and erring operators sanctioned accordingly. Incentives, e.g., tax holiday and subsidies should be given to local manufacturers to improve output. An industrial the proposal should be put in place to allow a connection between agriculture and manufacturing to increase foreign exchange from exports.

Achouak et.al. (2018) checks the role of exchange rate regimes and the degree of financial openness in explaining the impact of exchange rate volatility on economic growth. The empirical investigation was based on a sample collected from 45 developing countries during the period 1985-2015. They summaries their finding into three: First, nominal and real exchange rate volatilities have negative and statistically significant effects on economic growth. Second, the effects of volatility are negative in countries with flexible exchange rate regimes, whereas they are not significant in countries with fixed regimes. In economics with flexible exchange rate regimes, exchange volatility is relatively high. Economic agent acting in such a macroeconomic situation might fear the uncertainty related to the evolution of future exchange rates and choose to postpone their trade and investment actions, which may be destructive to economic growth. In countries with fixed exchange rates, the uncertainty of exchange rate evolution is relatively restricted and, these fluctuations have no impact on their economic performance. Finally, our empirical analysis considers the role of financial openness in explaining the relationship between exchange volatility and economic growth.

**Morina et.al.** (2020) by using the annual data for fourteen countries for the period 2002–2018, examines the nature and impact of exchange rate movements on economic growth. The result reveal that the volatility of the exchange rate has a significant negative effect on real economic growth. This appears robust with alternative measures of exchange rate volatility such as standard deviation and z-score. This paper suggests that policymakers should adopt different policies to keep the exchange rate stable in order to foster economic growth.

From the above documented studies it understood that, there exists a large number of empirical works on exchange rate and GDP. But still there is an existing research gap on the causal relationship between exchange rate and GDP on economic growth in Nigerian context. So, the present study is intended to find out the causal nexus between exchange rate and GDP on economic growth of Nigeria scenario

## 3.0 DATA AND METHODOLOGY

This analysis style in examining the impact of charge per unit on economic process of Federal Republic of Nigeria from 2010 to 2018. The data applied during this study were secondary in nature and were sourced from the financial institution of Federal Republic of Nigeria (CBN) applied mathematics bulletin of 2018. The information were on annual basis as contained within the financial institution of Federal Republic of Nigeria (CBN) applied mathematics bulletin. The dependent variables are Real Gross Domestic Product (RGDP). The variable is Real charge per unit (REXR) for charge per unit policy. Inflation (INF) is introduced within the models as management variables capable of influencing economic process indicators.

#### Methodology

The standard Granger Causality test are used to verify the nexus between economic growth and exchange rate in Nigeria. After the execution of necessary data transformations, the following bivariate Granger causality model is estimated.

$$GDP_{t} = \alpha_{0} + \sum_{i=1}^{m} \alpha_{1i} GDP_{t-1} + \sum_{i=1}^{m} \alpha_{2i} Exr_{t-1} + \varepsilon_{1t}$$
(1)

$$Exr_{t} = \beta_{0} + \sum_{j=1}^{n} \beta_{1i} Exr_{t-1} + \sum_{j=1}^{n} \beta_{2i} GDP_{t-1} + \varepsilon_{2t}$$
(2)



where, GDP and Exrt represents the real gross domestic product and exchange rate respectively.

 $\mathcal{E}_{1t}$  and  $\mathcal{E}_{2t}$  are uncorrelated stationary random process, and subscript *t* denotes the time period. Failing to reject the null hypothesis  $H_0: \alpha_{21} = \alpha_{22} = \ldots = \alpha_{21}$  results that exchange rate does not granger cause real income activities. On the other hand, failing to reject the null hypothesis  $H_0: \beta_{21} = \beta_{22} = \ldots = \beta_{21}$  implies that real GDP does not granger cause exchange rates.

Empirical works based on time series data assume that the underlying time series is stationary. As a preliminary process, graphs are also used to assess the nature of the data series. Then the time series properties of variables are examined using Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests.

## 4.0 ANALYSIS AND INTERPRETATION

### **Descriptive Statistics of Variables**

The descriptive statistics of variables used in the study have presented in Table 4.1. From the reported results, it is understood that the mean and median values, for LSGDP series stood at 4.202 percent and 4.225 percent respectively, while the minimum and maximum values for the same series are 4.24 and 4.122 respectively. The skewness and kurtosis which measures the peak and fat tails of the series has value of -0.683 for skewness which implies that the series is positively skewed and platykurtic. The Jarque-Bera tests the normality of the series, it appears with a probability values greater than 5 percent which implies that the series is not normally distributed.

| Table 1: Descriptive Statistics of the Variables |       |      |  |
|--|-------|------|--|
|  | LSGDP | LEX  |  |
| Mean   | 4.20  | 2.29 |  |
| Median   | 4.23  | 2.20 |  |
| Maximum  | 4.25  | 2.49 |  |
| Minimum  | 4.12  | 2.18 |  |
| Skewness   | -0.68 | 0.71 |  |
| Kurtosis   | 2.03  | 1.73 |  |
| Jarque-Bera                                      | 4.21  | 5.47 |  |
| Probability                                      | 0.12  | 0.06 |  |

The LEX which is the log of exchange rate series recorded 2.29, 2.19, 2.48, and 2.17 for mean, median, minimum and maximum values respectively. However, the skewness and kurtosis are 0.71 and 0.73 which by implication, means that the series is positively skewed and platykurtic. The Jarque-Bera test shows that the series is not normally distributed. Both DLSGDP and DLEX have less than 1 percent of mean and the median with both indicators having a negative sign in the minimum value count.

#### 4.2. Test for Stationarity

As a first step to check the presence of unit root is to plot the data and visualize its behavior. The log of quarterly gross domestic product, log of seasonally adjusted quarterly gross domestic product, log of nominal quarterly exchange rate, and first difference of all the above mentioned variables are depicted in figure 1 to figure 5.



From Figure 1, it is understood that in addition to the seasonal effects for the entire sample period, there is an upward trend of GDP from the second quarter of 2010 until the third quarter of 2015. After which there is sharp drop towards the end of the first quarter of 2016. However, the upward and downward trend over the sample period shows the instability of the Nigeria's GDP.



Figure 2: Log of Seasonally adjusted Real GDP

Figure 1, presents the trend of the Nigeria's GDP without seasonal adjustment, while figure 2 reports the seasonal adjusted Nigerian GDP. Considering seasonality before modeling a series is important, in the sense that it helps to avoid exaggeration or biased estimates. Figure 2, shows the movement of the Nigeria's GDP over the sample period, it shows that Nigeria's GDP is less volatile because it shows average movement between 4.15 and 4.25, which is relatively stable in comparison to figure 1.



Figure 3: Log of Seasonally adjusted Real GDP - First Difference

Figure 3, is a graph of logged seasonally adjusted GDP, from the first quarter of 2010 to the last quarter of 2018. The graph indicates the presence of outlier in third quarter of 2011, this was the election period, when a lot of investors repatriated their invested capital due to fear of election outcome. However, after the swearing in of the new government in the third quarter of 2011, hope was restored and shock disappears. The break of 2015 happens due to recession the country swung in coupled with oil glut in the world oil market.





Figure 4, the exchange rate series was relatively stable from 2010 up to the last quarter of 2014. In 2015, there oil glut in the world, and Nigeria being a country depended on almost 80 percent of its revenue from oil was badly hit by the development. However, after the country's effort to diversify the economy in order to reduce dependence on crude oil's revenue, the country gets back to normal trend and exited recession in the second quarter of 2016.



Figure 5: Log of Real Exchange Rate – First difference

Figure 5, the first difference of the exchange rate gave a clear picture of what the exchange rate series looked like after taking a first difference of the series. This is important because the stochastic properties of the series seem not stable in the level form. However, the first difference indicates that the series' stochastic properties i.e. mean, variance and co-variances are stable over the sample period. However, the oil glut impact still appears significant around 2014 and 2016 period.

Even though the graphical analysis of the data shows a presence of stationary for both the variables at the first difference, it is mandatory to check the stationary properties through conventional tests. So, the stationary properties of all the variables are verified by using the Augmented Dickey-Fuller (1979) and Phillips and Perron (1988) tests and the estimated results are reported in Table 4.2 and in Table 4.3.

| Table 4. 2: Unit Root Test Results – At Levels |                  |                    |  |
|--|------------------|--------------------|--|
| Variables                                      | ADF Test         | PP Test            |  |
| Seasonally Adjusted Real GDP                   | -2.315<br>(0.17) | -2.837<br>(0.06) * |  |
| Exchange Rate                                  | 0.048<br>(0.95)  | -0.123<br>(0.93)   |  |

Table 2, summarizes the result of unit root test through Augmented Dickey Fuller Test (ADF) and Philips and Peron (PP). The idea behind the stationarity testing is to find out the situation of the stochastic properties of the series, which is a starting point to establish a short run or log relationships among series. The result indicates that both GDP and exchange rate are not stationary in level form through ADF procedure; however, PP indicates that GDP is stationary at 10 percent level of significance. This implies that we lost, the long run information of these two series, and we therefore, need to difference the series and thus, whatever outcome is derived from the two series after differencing has implications for only short run.

| Table 3: Unit Root Test Results – First Difference |                   |                   |  |
|--|-------------------|-------------------|--|
| Variables  | ADF Test          | PP Test           |  |
| Seasonally Adjusted Real GDP                       | -3.332<br>(0.02)* | -3.329<br>(0.02)* |  |
| Exchange Rate                                      | -4.182<br>(0.00)* | -4.014<br>(0.00)* |  |

Note: "' indicates significance at the 1% level of significance. The figures in parenthesis are *p* values

The result of table 3, presents the unit root test of our two series, in the first difference. The outcome shows that two series are first differenced stationary through both ADF and PP, all at 1 percent level of significance. Thus this concludes that our series are stationary at first difference and our granger framework should take our series not in level form, but rather in first difference form.

These results shows that the estimated probability values are good enough to reject the null hypothesis of no unit root at the levels whereas in the first differences, the estimated values are accepting the null of no unit root. The basic necessary conditions for estimating causality models are that both the variables estimated must be stationary. So the granger causality model is estimated by using first difference of the variables of interest.

| Table 4: Optimal lag order selection criterion |        |      |      |         |         |         |
|--|--------|------|------|---------|---------|---------|
| Lag  | LogL   | LR   | FPE  | AIC     | SC      | HQ      |
| 1  | 210.47 | NA*  | 0.00 | -13.03* | -12.94* | -13.00* |
| 2  | 213.41 | 5.34 | 0.00 | -12.96  | -12.69  | -12.87  |
| 3  | 217.28 | 6.53 | 0.00 | -12.96  | -12.50  | -12.80  |
| 4  | 218.87 | 2.48 | 0.00 | -12.80  | -12.16  | -12.59  |

\* indicates lag order selected by the criterion, LR: sequential modified LR test statistic (each test at 5% level) FPE: Final prediction error, AIC: Akaike information criterion, SC: Schwarz information criterion, HQ: Hannan-Quinn information criterion

Including an appropriate lag orders are very important in the causality models, because the estimated results are very much sensitive to the no of lags included. Thus, instead of choosing an arbitrary lags, the optimal lag order selection criterion is estimated and the results are reported in Table 4.4. The reported results in the above table shows that all the lag length selection criterions are statistically significant at order one and so only the first lag is included in the causality models.

| Table 5: Granger Causali           | ty Results         |       |
|------------------------------------|--------------------|-------|
|                                    | <b>F-Statistic</b> | Prob. |
| DLEX does not Granger Cause DLSGDP | 0.85181            | 0.43  |
| DLSGDP does not Granger Cause DLEX | 1.07706            | 0.35  |

Table 5 is the granger (1969) causality test. The procedure tests a null of no causal relationship as against the alternative of causality. A uni-directional causality is established if GDP causes Exchange rate and not vice versa, while a bi-directional causality is established if causality exist between the two series and runs from GDP to exchange rate and vice versa. From the result above, it indicates acceptance of null hypothesis in both situations and concludes no causal relationship between GDP and exchange rate in Nigeria.

## **5.0 CONCLUSION**

The study found that the causal nexus between exchange rate and GDP has no influence. Empirical works based on time series data assume that the underlying time series is stationary. As a preliminary process, graphs are also used to assess the nature of the data series. Then the time series properties of variables are examined using Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests. The procedure tests a null of no causal relationship as against the alternative of causality. A uni-directional causality is established if GDP causes Exchange rate and not vice versa, while a bi-directional causality is established if causality exist between the two series and runs from GDP to exchange rate and vice versa. From the result above, it indicates acceptance of null hypothesis in both situations and concludes no causal relationship between GDP and exchange rate in Nigeria. The aim of the study to understand the causal nexus between exchange rate and GDP on Nigeria economy.

And this recommendation should be put in place for the policy makers which will help in the growth of the country.

- The Central Bank of Nigeria ought to place in a strict exchange policy management to make sure that the worth of Nigerian monetary unit against different currency is correctly determined. Unethical practices by banks leading depreciation of the Nigerian monetary unit ought to be investigated and operators sanctioned consequently.
- Exchange rate alleviation is additionally essential in facilitating exchange in any economy, we tend to thus advise the policy makers to make sure that exchange is sure determined by the forces of demand and supply.
- The government ought to influence the exchange rate, by positive economic reforms that may cut back the adverse result of unstable exchange rate on the Nigerian economy with regard to trade flow.

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