Exchange Rate Management and Sectoral Output Performance

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Abstract— The goal of every economy is to have a stable exchange rate with the countries it trades with; therefore exchange rate is very vital to the economy of every country. Nigeria has adopted both fixed and fluctuating exchange rate regimes in order to achieve the goal of a realistic exchange rate but this has proven futile as the economy has continued to perform poorly over the years. This study is therefore aimed at examining the effect exchange rate management has on the output performance of both the agricultural sector and the manufacturing sector. Secondary data from 1981 -2015 were analyzed using the Ordinary Least Square technique. The results showed that exchange rate has a positive and significant effect on only the agriculture sector. The study recommends amongst others that efforts should be made to increase the exportation of agricultural products in order to boost exchange rate.

Keywords— Exchange rate; Agriculture; Manufacturing sector; Ordinary least squares; Sectoral output

1. Introduction

Exchange rate can be defined as the value of one currency in relation to another. It is the price of the currency of one country in terms of another. The goal of every economy is to have a stable exchange rate with the countries it trades with. The exchange rate of a country is of vital importance to a country's international trade because no country is self-sufficient or independent as a result of the variation in various endowments (Enekwe, Ordu, Nwoha, 2013). According to Alabi (2015), the bleak economic performance in Africa, Asia and Latin America can be linked to the changes in real exchange rate. It is therefore important to state that an efficient exchange rate policy is important to enhance economic performance in any country. Asher (2012) stated that the exchange rate of a country is used as a yard stick to determine the growth of the country.

In Nigeria, the stability of exchange rate was not achieved in spite of the devaluation of the naira to

International Journal of Supply Chain Management IJSCM, ISSN: 2050-7399 (Online), 2051-3771 (Print) Copyright © ExcelingTech Pub, UK (<u>http://excelingtech.co.uk/</u>) promote export. Enekwe, Ordu, Nwoha (2013) observed that exchange rate policies in developing countries are most times sensitive and controversial because of the structural transformation required such as reduction of goods importation and increasing the exportation of goods and services. Ikpefan, Isibor, and Okafor (2016) stated that the exchange rate was fairly stable from 1973 to 1979 during the oil boom era plus when 70% of the nation's GDP was made up of agricultural products, but in 1986 after the introduction of the Structural Adjustment Programme, the country moved to a flexible exchange rate from a fixed exchange rate which was determined by the forces of demand and supply. This conflicting exchange rate policy contributed to the fluctuating and unstable nature of the naira and this failure made various industrial sectors of the economy to face the challenge of exchange rate fluctuation (Enekwe, Ordu, Nwoha, 2013).

Oladipupo and Onotaniyohowo (2011) observed that fluctuation in the exchange rate had a ripple effect on other macro-economic variables in the economy such as the level of inflation, unemployment rate, interest rate and money supply. Fluctuation in exchange rate also affects the demand and supply of goods in the economy, investment opportunities, level of employment as well as the distribution of income and wealth, (Oladipupo and Onotaniyohowo, 2011). Elumelu (2012) defined foreign exchange management as a deliberate effort of controlling and using optimally the available foreign resources in a country while ensuring to increase the external reserves so as to avoid external shocks which are due to the dwindling foreign exchange receipts. The effective management of exchange rate in a country is one of the key elements in the financial structure of various industrial sectors.

1.2 Statement of the Research Problem

The economy of Nigeria has been described as a 'Mono Economy' exporting majorly crude oil and importing 60% of our basic commodities. In a country with high import rate, there is a great demand for foreign exchange, from the power subsector, oil and gas industries, manufacturing industries, commercial sector and other sectors of the economy. Therefore, fluctuations in the exchange rates affect various economic activities like the purchasing power, balance of payment, prices of goods and services, import structure, export earnings, external reserves, among others.

The Nigerian Naira has depreciated and appreciated several times as a result of government intervention and market forces, so as to obtain a stable exchange rate that would improve the performance of macro-economic variable and diversify the productive base of the economy (Yaqub, 2010). The Nigerian Government has however been unable to maintain a stable exchange rate and the naira has continually depreciated throughout the 80's till date. As a result of a series of adverse development in the international oil market, Nigeria has been pushed into a difficult situation.

Due to Nigeria's incapability to look into the future, oil, today, is dollar-dominated and it is virtually the nation's only export. The economy continues to depend on crude oil as its single export which contributes up to about 80% of the country's income while agriculture which was the pillar of the economy before the discovery of oil continues to abate. Also output in the manufacturing sector has been adversely affected during this period. The economy today is facing a foreign exchange scarcity which is as a result of high exchange rate of the naira to dollar, which has resulted into stagflation, leading to increase of prices of goods and services which affect the output of industries. The economy is currently in a recession and this has resulted in major losses in different sectors of the economy. Although a lot of research studies have been done on the effect of exchange rate fluctuation on the economy of developing countries, very few studies has been done on its effect on sectors of the economy. This study will thus be examining the effect of exchange rate on two major sectors of the economy which are the agricultural and manufacturing and sectors.

2. Conceptual Framework

2.1.1 Developments in Exchange Rate Policies

Between 1959 and 1994, ad-hoc administrative measures were put in place, the Nigeria foreign exchange was the pound sterling until the actualization of the sterling by 10% in 1967. After the exchange rate was changed from pound to naira in 1973, fixed exchange rate were set for the US dollar and the pound sterling. This was done to promote orderliness in the foreign exchange market (Obadan, 1997). During the 1970s, many countries were forced to change their exchange rate due to unprecedented changes such as high rate of inflation and unemployment, low productivity and instability in the international financial system. Between 1972 and 1994, the Nigeria monetary authorities decided to set naira at par with the US dollar. This period coincided with oil boom period and by 1981, N1.00=\$0.65. The official foreign exchange reserve was also \$1 billion.

In 1985, a one currency intervention system was adopted, where the naira was quoted against a single intervention currency which was the dollar. Ikpefan, Isibor, and Okafor (2016) postulated that this policy was adopted in order to minimize the problem of high incidence in the naira exchange quotation.

With the introduction of SAP, the Second Tier foreign exchange market was introduced in September 1986. The SFEM was operated along with a managed first tier exchange market. Nigeria moved from a fixed exchange rate regime to a floating exchange rate regime during this period. In 1987, the Unified official market was introduced where both the first tier and second tier foreign exchange market were merged. In 1988, banks transacted foreign exchange business among themselves but this was discontinued in 1989 due to instability, (Taiwo, Babajide, Okafor, and Isibor, 2016).

In October 1990, the Foreign exchange market was liberalized again and the Interbank Foreign Exchange market was introduced (IFEM). They used weighted average to determine the exchange rate at different times. In December 1990, the Dutch Auction System was introduced, although it was first used in April 1987 but was scrapped due to instability in the FOREX market. In 1994, the Federal Government fixed the official exchange rate at N21.1960 to a dollar, in order to secure the illegalities of the parallel market and to prevent bureau the change from selling foreign exchange.

In 1995, the dual exchange rate policy was introduced with the aim of reducing the depreciation of naira in the parallel market and for efficient allocation and utilization of resources. The foreign exchange provision decree17 of 195 was enacted which established the autonomous foreign exchange for trading for privately sourced foreign exchange and the exchange control act of 1962 was scrapped. By the end of 1996, 1US dollar=N80.00. In 1997, liberalization of some payments increased the pressure on the foreign exchange which depreciated it to 1USdollar=N85.00

In 2000, the dual exchange rate system was repealed by the Federal Government and the autonomous foreign exchange rate was merged with the government official rate. The official rate of N22.00 to 1 US dollar was also scrapped. The exchange rate in 2001 was N111.20 to 1 US dollar in the foreign exchange market and N128 in the parallel market. In 2002, the Dutch Auction System was reintroduced and the Retail Dutch System was implemented with the CBN selling to end-users through the banks. By January 2003, the naira further depreciated to N131, (Olokoyo, Isibor, Oladeji, and Edosomwan, 2016).

In 2006, the market was further liberalized with the introduction of Wholesale Dutch Auction System (CBN

Bullion, 2006). This was meant to consolidate the gains of the retail Dutch auction system as well as deepen the foreign exchange market on their accounts for onward sale to their customers, (Ogochukwu, Ikpefan, Okafor, and Isibor, 2016). These exchange rate regimes have held some implication on economic performance.

2.1.2 Trends in the Agriculture sector

Before the CBN was established and the Exchange Control Act of 1962 was enacted, Foreign exchange earnings were made by the private sector and they were held in bank balances abroad by commercial banks that acted as agents for the local exporters (Ikpefan, Isibor, and Okafor (2016). During this era the main bulk of the foreign exchange earnings were made from agricultural earnings. In the early 1970's crude oil replaced agriculture as the major source of export, this was due to the rise in the price of petroleum which helped to increase the foreign exchange reserve of the country. The policies established during the Pre-SFEM period from 1962 to 1986 led to structural changes which resulted into price distortions and increased vulnerability to external shocks, (Adeniran, Yusuf, and Adeyemi, 2014). The liberalization of import control in 1976 threatened the domestic production of both the agricultural and manufacturing sectors. Therefore, the competiveness of the agricultural sector as the principal contributor to the GDP was deteriorating due to the appreciation of Naira, rural-urban migration and in effective pricing policy.

Between 2000 and 2007, the agricultural sector contributed about 7.4 percent to our GDP annually on the average because the federal government, then under former president Olusegun Obasanjo, was able to establish the presidential initiative for many economic crops such as cocoa, cotton, oil palm, rubber, ground nuts, coffee, tea, livestock for hides and skin. This accounted for the growth in that sector under the period. In 2013, the performance of agriculture to the GDP declined to as low as 2.61 percent, (Amassoma and Odebiyi, 2016). Factors responsible for the decline include the mono-economy of oil, poor budgetary allocation, flexible importation policy, inadequate support to farmers and insecurity. In April 2016 the agriculture's contribution to Nigeria's Gross Domestic Product, GDP, leaped marginally from 23.86 per cent in the fourth quarter of 2014 to 24.18 percent.

2.1.3 Trends in the Manufacturing sector

Onyeizugbe and Umeaguges (2014) defined manufacturing capital utilization as the extent a nation or enterprise uses its installed production capacity. Before 1986, the reforms in foreign exchange polices helped to boost the manufacturing output. The Nigerian average manufacturing capacity utilization has continued to experience a downward trend while inflation has continued to move upward and the naira has continuously depreciated. In 1975, the average manufacturing capacity utilization was 76.6%, in 1980, it moved to 70.1%, 38.3% in 1985, 29.29% in 1995, 36.1% in 2000, 54.8% in 2005, 53.8% in 2008, 58.92% in 2009, and 55.82% in 2010, 58.8% in 2015, in 2016, the manufacturing capacity utilization fell to 50.7% in July from 53.7% in Nigeria.

The lack of vital industrial inputs adversely affected the industry capacity utilization which fell from 76.6% in 1981 to averagely 25% between 1982 and 1986. One of the major characteristic of the Structural Adjustment Program was the increase in the cost of importing inputs in order to encourage the use of vital inputs. After the introduction of SAP and the scrapping of the import license system, there was an improvement in industrial performance. There was a continuous rise in the average capacity utilization from 1987 to 1989 by about 32%. This was due to the introduction of the Second-Tier Foreign Exchange Market and the development of the import license system. The manufacturing sector contributed to about 4% of the GDP in 1977, 13% in 1982, 15% in 2012, and 16% in 2015.

2.2 Theoretical Framework

2.2.1 Balance of Payment Theory

This theory is also known as the Demand-Supply theory of exchange rate. It implies that the exchange rate of a country is determined by the market forces of demand and supply in the foreign exchange market. These forces are determined by the items in the country's balance of payment. It also asserts that exchange rate is determined by the position of the balance of payments of a country, a nation's balance of payment can be in surplus or deficit, when it is in deficit that means that there is a more demand for foreign currency than the home currency and when it is in surplus, it means that a favorable balance of payment leads to appreciation in currency value while an unfavorable balance of payment leads to depreciation in currency value.

Balance of payment theory is a more satisfactory theory than purchasing power parity because it recognizes all items in the balance of payment and their significance, rather than few selected under the PPP theory. This theory also postulates that Balance of Payment Disequilibrium can be corrected by devaluation or revaluation of a country's currency. One limitation of the BOP is that it is base on an unrealistic assumption of a perfect competition in the Foreign Exchange Market (Akrani, 2010).

2.3 EMPIRICAL FRAMEWORK

Alabi (2014) examined the impact of real exchange rate fluctuation on Industrial Output in Nigeria. Their developed hypothesis was tested using the Ordinary Least Square Method of regression analysis. Their result and finding discovered a positive bidirectional relationship between exchange rate and output in Nigeria and other resource dependent economies. They conclude that industrial output in Nigeria can be determined by movement in real exchange rate, capital utilization ratio, technology and available foreign exchange.

Oladele (2015) examined the impact of the foreign exchange market on the economic growth in Nigeria within a ten years span (1996-2005) by comparing the movement of the GDP in relations to the exchange rate of Naira and dollar and official and parallel rate data analyzed using the correlation analyses and F ratio techniques. The result showed a direct relationship between the official exchange rate and the parallel exchange rate. They both jointly determine the movement of the GDP. He therefore concluded that proper management of exchange rate should be put in place as it is a major determinant of exchange rate.

Amassona and Odeniyi (2016) examined the relationship between exchange rate variation and economic growth in Nigeria emphasizing on the level of international transaction and the purchasing power of the average Nigerian. The Standard Deviation method was used to estimate fluctuation inherent in the model over a period of 43 years (1970-2013). Other economic techniques such as multiple regression model, error correction model, Augmented Dickey Fuller (ADF) test and Johansen Co-integration were used to analyze the data. The result showed that exchange rate has a positive but insignificant relationship with economic growth in the short run. This insignificant relationship was as a result of the involvement of monetary authorities on influencing exchange rate fluctuation in Nigeria.

Onyeizugbe and Umeaguges (2014) examined the impact of exchange rate management and the survival of the industrial subsector of Nigeria. The main objective of this study was to examine how naira devaluation affects the survival of the manufacturing sector in Nigeria. The hypothesis was tested using the Ordinary Least Square regression method with data from the CBN statistical bulletin over a period of 23 years. The result showed a positive correlation between exchange rate and survival of industrial factors.

Enekwe, Ordu, and Nwoha (2013) studied the effect of exchange rate fluctuations on the manufacturing sector in Nigeria over a period of 25 years (1985-2010). Data obtained from the CBN Statistical Bulletin and the Nigeria Bureau Statistics were analyzed using multiple regression analysis and descriptive analysis. The result of the analysis showed that exchange rate fluctuation has a positive and significant relationship with the manufacturing sector of Nigeria. The researchers recommended export diversification in agriculture, agroallied industries and agro investment as this would improve the growth of the manufacturing sector in Nigeria.

Ehinomen and Oladipo (2012) also examined the relationship between exchange rate management and the manufacturing sector performance in the Nigerian economy over a span of 24 years (1986-2010). They estimated their data using the OLS multiple regression analysis. The result showed that in Nigeria, exchange rate appreciation has a significant relationship with domestic output and this contradicts the theoretical expectation that exchange rate depreciation will promote manufacturing export and encourage the use of input locally and growth in the manufacturing sector. They concluded that the exchange rate management policy which presently tends towards exchange rate depreciation has not contributed significantly to the growth of the manufacturing sector in Nigeria. This suggests that exchange rate depreciation is what we need to pursue instead of exchange rate depreciation.

Oladapo and Oloyede (2014) examined the relationship between foreign exchange rat management and Nigeria economic growth from 1970-2012. Data was sourced from the CBN statistical bulletin and estimated with the OLS estimation techniques within the error correction model. The result showed a positive but insignificant relationship between exchange rate and economic growth. Although variables within an effective Foreign Exchange Rate Management Policy affects Foreign Direct Investment which in turns affects economic growth.

3 Methodology

3.1.1 Model Specification

MODEL 1: Agricultural Output

$$LGDPa = \beta_0 + \beta_1 LRER + \beta_2 LYF + \beta_3 LMS + \beta_4 LINT + \mu$$
(1)

Where:

GDPa= Output for agricultural output

RER= Real effective exchange rate

YF = Foreign Income which will be used as a proxy for Foreign Direct Investment.

MS= Money Supply

INT= Interest rate on Lending.

 μ = Stochastic error term

MODEL 2: Manufacturing Output Equation

 $LGDPm = \beta_0 + \beta_1 LRER + \beta_2 LYF + \beta_3 LMS + \beta_4 LINT + \mu$ (2)

GDPm= Stands for Output for Manufacturing Sector

This study used secondary annual time series data which runs from 1981 to 2015, thus covering a period of thirtyfour (34) years. The data were obtained from the CBN statistical bulletin, World development Indicator, and the Central Bank of Nigeria Annual Report and Statement of Account. Data for this study would be analyzed using the Ordinary Least Square Regression Analysis. This estimation techniques would enable the researcher determine the relationships among the variables.

4 Result

4.1 Unit Root Test

In carrying out this test, the augmented-Dickey Fuller test was used. The test is carried out to test for the stationarity of each variable. The rule of thumb of the test is such that if the absolute value of the ADF test statistic is greater than the critical value at 5%, then we reject the null hypothesis that the variable is non-stationary. This implies that the variable is stationary when the absolute value of the ADF statistics test is greater than the critical value at 5%.

Table 1. Unit root test result

Variables	Adf Statistics At 1 st Difference	Critical Levels (5%)	Order Of Integration
LGDPa	3.773321	2.954021	I(1)(Stationary)
LGDPm	4.504725	2.954021	I(1)(Stationary)
LMS	3.392523	2.954021	I(1)(Stationary)
LRER	4.910888	2.954021	I(1)(Stationary)
LINT	4.257818	2.954021	I(1)(Stationary)
LYF	10.96493	2.954021	I(1)(Stationary)

Source: Computed by researcher Using Eviews 9 From table 1 above, all the variables were stationary at first difference, trend and intercept.

4.2 Ordinary Least Squares Regression Analysis

Variable	Coefficient	Std. Error	t-Statistics	Prob.
С	0.824782	1.395038	0.591225	0.5588
LMS	0.772035	0.073502	10.50363	0.0000
LRER	0.228249	0.095104	3.297030	0.0685
LINT	0.318929	0.228339	1.396739	0.1727
LYF	-0.074259	0.071364	-1.040574	0.3064
R-			Durbin-	
squared =	Adjusted R-	F-	Watson	
0.9915	squared =	statistics =	Test =	
	0.9904	873.76	1.59	

Table 2: Result for Manufacturing Sector

Source: Computed by researcher Using Eviews 9

From the table above, the regression analysis has an r-square of 0.991489; therefore there is a goodness of fit between the dependent variable and explanatory variables.

This implies that 99% of manufacturing output is explained by the explanatory variables.

From the table also, we can see that there is a positive significant relationship between money supply and manufacturing output. There exist also a positive relationship between real effective exchange rate and manufacturing output. For interest rate and foreign income, there exists a positive but insignificant relationship between them and the dependent variable.

The Durbin-Watson stat shows an approximate figure of 2 to show that there is no autocorrelation in the data.

Table 3: Result for Agricultural Sector

Variable	Coefficient	Std. Error	t-Statistics	Prob.
С	0.131116	1.861339	0.070442	0.9443
LMS	0.720255	0.098070	7.344277	0.0000
LRER	0.340617	0.126893	2.684292	0.0117
LINT	0.055022	0.304662	0.180600	0.8579
LYF	0.008719	0.095217	0.091565	0.9277
R-			Durbin-	
squared =	Adjusted R-	F-	Watson	
0.9904	squared =	statistics =	Test =	
	0.9892	777.79	2.08	

Source: Computed By Researcher Using Eviews 9 Using the table above, the r-square of 0.990449 means that 99% of agriculture output is explained by the explanatory variables.

Also, there is a positive significant relationship between money supply and agriculture output, and also between real effective exchange rate and agriculture output. For interest rate and foreign income, there exists a positive but insignificant relationship between them and the dependent variable.

The Durbin-Watson stat shows a figure of 2 to show that there is no autocorrelation in the data.

5 Recommendations

From the analysis conducted in this study, it is important that the following recommendation be made to improve the output performance of sectors in Nigeria.

1. There is a need to have a realistic exchange rate in place in Nigeria to promote sectorial output performance.

2. Improvement in exchange rate management is necessary to revive the economy.

3. Efforts should be made in order to ensure that monetary and fiscal policies are effective and consistent in order to boost sectorial output performance.

4. Efforts should also be made to increase the exportation in order to boost exchange rate.

5. Interest on lending should also be reduced as it negatively impacts the agricultural and service sectors.

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References

- [1] Adeniran, J.O, Yusuf, S.A, and Adeyemi, O.A., "The Impact of Exchange Rate Flucutuation on the Nigerian Economic Growth: An empirical investigation", *International Journal of Academic Research in Business and Social Sciences*, Vol. 4 No. 8, pp224 - 233, 2014.
- [2] Akrani, G. (2010). Balance of Payment BOP Theory-Find Exchange rate. Retrieved 12 4, 2017, from Kaylan-city.blogspot.com.ng: http://kalyancity.blogspot.com.ng/2010/09/balanceof-payments-bof-theory-find.html, (5-6-2017)
- [3] Alabi, O. R. "Foreign Exhange Market and the Nigerian Economy", *Journal of Economics and Suistainable Development*, Vol. 6 No. 4, pp. 102-107, 2015.
- [4] Amassona, D. and Odeniyi, B.D. The Nexus Between Exchange Rate Variation and Economic Growth in Nigeria, Singaporean Journal of Business Economics and Management Studies, 4(12), 8-28, 2016.
- [5] Asher, O.J. "The Impact of Exchange Rate Fluctuation on the Nigerian Economic Growth (1980-2010)", Unpublished M.Sc Dissertation, Caritas University, Enugu state, Nigeria, 2012.
- [6] Ehinomen, C. and Oladipo, I., "Exchange Rate Management and the Manufacturing Sector Performance in the Nigerian Economy", *IOSR Journal of Humanities and Social Sciences*, Vol. 5 No. 5, pp. 1-12, 2012.
- [7] Elumelu, I., "Interest and Exchange Rate Fluctuations in Nigeria; A Macro Economic Implication", Alumnus Guest Lecture series of Department of Economics, Ambrose Ali University, 2012.
- [8] Enekwe, C., Ordu, M., and Nwoha, C., "Effect of Exchange Rate Fluctuations on Manufacturing Sector

in Nigeria" European Journal of Business and Management, Vol. 5 No. 22, pp. 67-73, 2013

Vol. 7, No. 5, October 2018

- [9] Ikpefan, O. A., Isibor, A. A, and Okafor, T. C., "Deregulation of the Foreign Exchange Market and its Effect on Industrial Produce in Nigeria", *Global Media Journal*, Vol. 1 No. 7, pp.1 – 7, (2016)
- [10] Obadan, M. I. Research Process, Policy-Making, Report Writing and Referencing (2nd ed.), Abuja: Goldmark Press Limited, 2016.
- [11] Obadan, M. I. Analytical Framework for Poverty Reduction: Issues of economic growth versus other strategies in: Poverty Alleviation in Nigeria. Selected Papers for the 1997 Annual Conference of Nigeria Economic Society, 1997.
- [12] Ogochukwu, C., Ikpefan, O. A., Okafor, T. C., and Isibor, A. A., "An Investigative Analysis into Capital Market and Economic Growth in Nigeria", Proceedings of
- The 28th International Business Information Management Association (IBIMA) Conference, Seville, Spain, 2016
- [13] Oladapo.F. and Oloyede.J.A. (2014). "Foreign Exchange Management and the Nigerian Economy", *European Journal of Business and Innovative Research*, Vol. 2 No. 2, pp. 19-31.
- [14] Oladipupo, A. and Onotaniyohowo, F. "Impact of Exchange Rate on Balance of Payment in Nigeria", *African Research Review Journal*, Vol. 5 No. 4, pp. 73-88, 2011.
- [15] Olokoyo, F. O., Isibor, A. A., Oladeji, T. F., and Edosomwan, O., "Effect of Banker-Customer Relationship on the Performance of Nigerian Banks", Proceedings of The 28th International Business Information Management Association (IBIMA) Conference, Seville, Spain, 2016
- [16] Onyeizugbe, C. U. and Umeaguges, U. E. "Exchange Rate Management and the Survival of the Industrial Sub-sector of Nigeria (1990-2013)", *Global Journal* of Management and Business Research, Vol. 14 No. 10, pp. 13-18, 2014.
- [17] Taiwo, J. N., babajide, A. A., Okafor, T. C., and Isibor, A. A., "Growth of Bank Fraud and its impact on the Nigerian Banking Industry", Proceedings of The 28th International Business Information Management Association (IBIMA) Conference, Seville, Spain, 2016
- [18] Yaqub, O. J. "Exchange Rate Changes and Output Performance in Nigeria: A Sectorial Analysis", *Pakistan Journal of Social Sciences*, Vol. 7 No. 5, pp. 380-387, 2010.