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# SELECTED MACROECONOMIC VARIABLES AND UNEMPLOYMENT SITUATION IN NIGERIA FROM 2006 TO 2016

**By**

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**Abstract**
*This study examines the importance of macroeconomic variables on fiscal policy in the management of the national economy, and its resultant effect on unemployment situation in Nigeria with some selected macroeconomic variables influence on unemployment rate. Secondary data were collected from the Central Bank of Nigeria (CBN) Statistical Bulletin spanning over a period of 11 years (2006-2016). Correlation and Regression analysis were used to test the hypotheses. Correlation test shows that both the inflation rate and exchange rate were positively related to unemployment rate. Although, the inflation rate has a weak correlation with unemployment but in the case of exchange rate, the relationship is strong. Meanwhile, interest rate and money supply have negative relationship with unemployment rate. However, they all exert weak association. The study concludes that having a better understanding of the interaction of functioning of the labour market with macroeconomic variables are fundamental and a driving force for any economic development.*

**Keywords**: Macroeconomic Variables, Labour Market, Unemployment and Nigeria.

## 1.0 INTRODUCTION

The increased financial and economic integration that exist in today's global economy make it imperative for government, business management, labour and other economic stakeholders to have a better understanding of what is happening in both the global and the local economic environment (IMF, 2015; World Economic Forum, 2014). This becomes necessary in order to understand the dynamics in employment, unemployment rate and how labour market can adjust quickly to both internal and external shocks such as productivity, product demand, raw material prices, or interest rates (Karanassou, Sala, & Snower, 2006).

Fashoyin (2010) states that the past two to three decades have witnessed fundamental changes in the institutions and processes of labour market in the developing countries of Africa, Asia, and Latin America. The change that includes: ineffective management of labour market; unstable macroeconomic variables, deregulation and privatisation, global economic meltdown, depression and recession amongst others. Arising from the foregoing, these changes have had a significant effect on the functioning of the labour market that represents a driving force for any economy and a key challenge that has been identified by both employment relations and actors, in the both private and public sector organisations globally (Fajana, 2000; Fashoyin, 2010; Kuruvilla & Erickson, 2002; Todaro & Smith, 2009).

The need to understand the dynamics of the labour market, and the functioning of macroeconomic variables came to the fore through Adam Smith (1776) the founder of modern economics. Adam saw the need for nations to respond proactively to effective planning, resource-allocation, production, pricing issues, inflation, unemployment, population control amongst others through his invisible hand reasoning (Grétarsdóttir, 2008; Stigliz, 2001). These are important issues in the labour market that have influenced how people are productively engaged, provision for social safety net, equitable allocation of resources and national planning policy. The labour market issues have become classical issue for both developed and developing nations over the past several decades with various scholars and practitioners advocating for suggestions on how to curb the scourge (Burgess & Knetter, 1998; Frenkel & Ros, 2006; Stigliz, 2001; Smith, 1776). From the classical school, neo-classical, and to the recent developmental and interventionists school of thought (Stiglitz, 2001, 2009), an effective functioning of labour market with

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stable macroeconomic variables have become an essential requirement and a competitive advantage to countries, companies and other actors in the economy (Fajana, 2000; Frenkel & Ros, 2006; Fashoyin, 2010). It has helped nation's economies to prosper and maintain stability in the new economic landscape known as the knowledge economy (Fajana, 2000; Future Watch, 2007; Fashoyin, 2010; Rumler & Scharler, 2009). These is a sine-qua-non for national economic stability either in the periods of economic boom or recession that are synonymous with the global economy in the past 15 years as events in the past few years have shown that no country is immune from global economic recessions (Bhatla, 2011; IMF, 2015; World Economic Forum, 2014; World Bank Group, 2015). Ineffective management of the labour market with macroeconomic variables have weakened a growing number of both developed and developing economies, making some of them fall into double-dip recession with resultant effect on high rate of unemployment (IMF, 2015; World Economic Forum, 2014). The resultant effects spilled over to various sectors of the economy; weakened demand for their exports, increased volatility in capital flows, decline in commodity prices, at the same time leading to weak investment demand because of financing constraints and excess production capacity elsewhere (Frenkel & Ros, 2006; LASG Economic & Fiscal Update, 2013; IMF, 2015; World Economic Forum, 2014).

The studies on labour markets and macroeconomic variables influence on unemployment have been a subject of argument and debate over the years (Calmfors & Driffill, 1988; Rumler & Scharler, 2009; Stiglitz, 2001; Zeitun, Tian & Keen 2007). Most researchers focused on the effect of one or two variables on a sector rather than all the variables, for instance, Fashoyin (1986) focused on incomes and inflation in Nigeria while Fajana (2000) and Todaro and Smith (2009), took a macro view with the former focusing on the functioning of the Nigeria labour market and latter taking global views on economic development. Simiyu and Ngile (2015) state that an effective and efficient functioning of the financial sector requires sound and favourable macroeconomic environment in the country. Therefore, in this era of economic recession in Nigeria, it has become imperative for the management of the national economy, employers of labour and those entering the labour market from schools, existing unemployed and youths to have a clear understanding of the functioning of the labour market and how it interacts with the macroeconomic variables.

Studies on how various macroeconomic variables influence unemployment situation have produced diverse findings hence it becomes a contending issue in recent times. In a bid to get it right, a leading developmental economist, Stiglitz (2009) raised fundamental questions on how to ascertain when the labour markets are allocating resources efficiently? For instance, how do we know when they are allocating capital, to the areas where the returns are the highest? Therefore, searching for answers would need a good understanding of the interaction between the functioning of the labour market, macroeconomic variables and unemployment situation. The aim of this study is to examine the influence of selected macroeconomic variables on the unemployment situation in Nigeria from 2006-2016. Therefore, the following are the specific objectives:

i. to examine if inflation rate influences the rate of unemployment situation in Nigeria,
ii. to investigate if money supply has influence on the rate of unemployment situation in Nigeria,
iii. to examine if interest rate has influence on the rate of unemployment situation in Nigeria,
iv. to determine if exchange rate has significant influence on the rate of unemployment situation in Nigeria.

## 2.0 LITERATURE REVIEW

### 2.1 Classical Theory of Unemployment

A classical economic theory originally propounded by Adams Smith, David Ricardo and Thomas Malthus in the late 18$^{th}$ century, posit that unemployment can be explained by the real wages being higher than the market-equilibrium wage. The supporters of this theory Pigou (1933) and Solow (1981), argue that the labour market consists of demand and supply of labour. The supply of labour is derived from worker's choice of whether to be engaged on part time work or not working (leisure). Supply of hours worked is a function of the real wage due to the fact that because if the real wage rises, workers would be willing to do more hours of work. To get equilibrium, demand and supply of labour are intersected at a clearing

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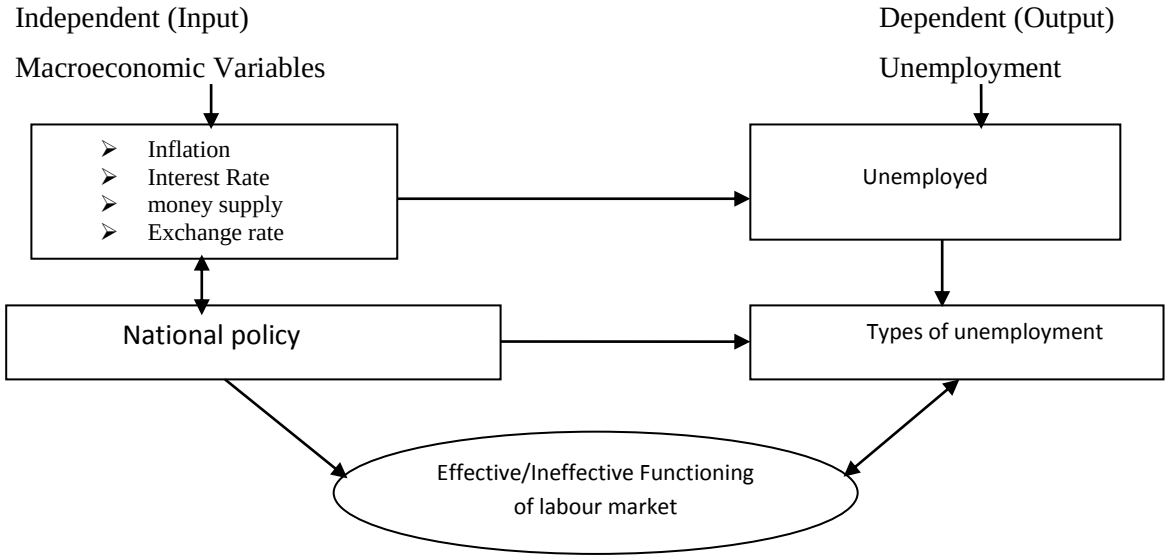
point that determines the equilibrium real wage rate and full employment (Mouhammed, 2011; Pigou, 1933). This implies that when the demand for labour is equal to the supply of labour at the prevailing wage rate, and that, if for any reason, there is an increase in the supply of labour, the wage rate would fall. As a result of the above scenario, more workers could be employed. Similarly, if there is a shortage of workers, the wage rate would rise thereby eliminating the shortage. Thus, in the classical sense, there will be no voluntary unemployment. The critique of this theory claimed that it has limitation as such "markets do not necessarily work well" (Stiglitz, 2009, p. 346). How could such markets work well, when in most developing economy, one out of four people are involuntarily out of a job? (Stiglitz, 2009, p. 346)" while, Karanassou, Sala and Snower (2006) refer to such market as Keynesian deficient demand hypothesis.

## 2.2 Schumpeter's Developmental Theory

This is an important theory in the labour market with focus on how to tackle the scourge of unemployment. Joseph Schumpeter propounded this theory in 1934. The principle of this theory is based on how effective business cycle can clearly be used to reduce unemployment challenges. He argues that entrepreneurial innovation can be financed only by the expansion of credit and that the entrepreneur is never the risk bearer. Even though he may risk his reputation, the direct responsibility for failure never falls on him. Risk is borne by those who supply the capital, principally the creditors. Therefore, out of the two theories identified, Schumpeter's theory seems to be more fundamental and continues to be relevant in solving unemployment problem. This is based on the fact that most countries today look at the direction of entrepreneurships innovation in providing employment for the millions of their citizens.

## 2.3 CONCEPTUAL FRAMEWORK

**Fig 1: The conceptual framework showing how selected macroeconomic variables influence unemployment situation in Nigeria.**




**Source: Developed by authors, 2018**

The conceptual model in figure 1 shows how selected macroeconomic variables influence unemployment. Stigliz (2001) states that the consequences of information imperfections for the functioning of markets is the construction of macroeconomic models that can help explain why the economy amplifies shocks and makes them persistent, coupled with unemployment and credit rationing. Todaro and Smith (2009) assert that markets failure in less developing countries caused imperfection of structure and operation. This implies that macroeconomic variables influence national policy, and national policy adopted will in turn influence the performance of the labour market (Barron, Ewing & Lynch, 2006; Fajana, 2000, Global Competitiveness Report of 2015-2016; Ernst & Berg 2009). Macroeconomics variables represent important concept when measuring effective and efficiency of a particular policy, operating efficiency of particular sector and its contribution to national economy within a stipulated period of time. Its help

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nations, organizations to plan, forecast and make investment decision (Barron, Ewing & Lynch, 2006; Global Competitiveness Report of 2015-2016), on what to do, how to do it and when to do it.

A well functioning labour market are characterised by stable: macroeconomic variables, policy, planning, with a good provision of social protection and safety net for the citizenry. The performance of economy and the functional labour market determine the types of unemployment a particular nation is experiencing at a particular time. There are various types of unemployment amongst which are: hidden unemployment, classical unemployment, transitional unemployment, frictional unemployment, structural unemployment, seasonal unemployment amongst others (Standing, 1983; Udu & Agu, 2005; Fajana, 2000; Todaro & Smith, 2012; Shadare & Elegbede, 2012). The types of unemployment that exist in a particular country at a particular time indicate how government policy; labour market, macroeconomic variables and economy in general are performing. Maitah (n.d, 2018) asserts that during periods of poor economic performance, such as economic recessions, unemployment rises sharply and becomes a cause of public concern, while during good economic performance and rapid economic growth, unemployment is reduced but does not disappear as unemployment cannot be totally eradicated.

### 2.4 Empirical Review

Unstable macroeconomic variables and unemployment are important problems facing all developing countries irrespective of their levels of development (ILO, 2014; Todaro & Smith, 2012, Fashoyin, 2010; Fajana, 2000). The fundamental factors making these problems important are its negative effects on labour market and general economy as a whole (Mucu & Demirsel, 2013).

#### 2.4.1 Influence of inflation rate on unemployment situation

Unemployment and inflation are two major economic problems confronting virtually all economies (Kooros, Sussan and Semetesy, 2006). The study by Dogan (2012) investigates the response of unemployment to selective macroeconomics shocks for the period of (2000:Q1-2010:Q1). The finding indicates that positive shocks to growth, growth in export and inflation reduce unemployment. The study of Karanasou and Sala (2010) investigate driving forces behind unemployment for Australia over time and discovered that the reasons behind unemployment differ according to period investigated. The study shows that for instance in 1970's, the driving force behind unemployment is the problem caused by oil shock while in 1990s and 2000s; interest rate fluctuation is important driving force. Umeora (2010) examines the effects of money supply (M2) and exchange rates on inflation in Nigeria for the period of 1982 to 2009 using annual data. The finding shows that money supply and exchange rate have positive and negative effects on inflation in Nigeria respectively. Djivre and Ribon (2000) examine inflation, unemployment, the exchange rate and monetary policy in Israel between 1990-1999. The findings indicate that monetary policy shocks reflected in an interest rate increase induced by a rise in unemployment, due to aggregate demand contraction and a slowdown in the inflation rate. Pal and Mittal (2011) investigated the long run relationship between two Indian capital markets and some macroeconomic factors as interest rates, inflation, and exchange rate and gross domestic savings using quarterly data from January 1995 to December 2008 with the aid of unit root test, co-integration and error correction mechanism. The study indicate that the inflation rate have significant impact on both capital markets whereas interest rate and foreign exchange rate have an impact on one capital market.

#### 2.4.2 Money supply rate and unemployment situation

The study of Mbongo, Mutasa and Msigwa (2014) examine the effects of money supply on inflation in Tanzania. The study applied OLS, VAR and ECM techniques to examine the effect of selected variables on inflation in Tanzania. OLS and ECM results show that money supply and exchange rate have significant impact on inflation in the short and long run. Cambazoğlu and Karaalp (2012) found that changes in money stock (m2) impacts on employment and output. Gocer (2013) examines the relationship between changes in money supply in terms of total lending of the banking sector and unemployment in fourteen selected European Union countries for the 1980-2012. The analysis shows a reduction in unemployment rate in these countries being attributed to increase in lending. Essien, Manya, Arigo, Bassey, Ogunyinka, Ojegwo and Ogbuehi (2016) study indicate that a positive shock monetary policy rate elicits a mild and steady positive response from unemployment, while a positive shock to money supply exerts a mild inverse and steady pressure on unemployment up to 10 quarters period. The results

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also show that unemployment responds positively and significantly to a positive shock to investment over the 10 quarters period. Bernanke and Kuttner (2005) study also reported that tightening of money supply increases risk premium that will be needed to compensate investors for holding risky assets as it signifies a deceleration of economic activity, and may influence unemployment dynamics. Friorentini and Tamborini (1999) finding indicate a permanent effect of credit variables on employment and output through the supply side of the economy by altering credit supply conditions to firms. Ordine and Rose (2008) finding indicate that a 10% increase in banking sector supply of credit increases employment rate by 5%. Finally, Aliero, Ibrahim, and Shuaibu (2013) examine the relationship between financial sector development and unemployment with a time series data from 1980 to 2011 in an auto regressive distributed lag framework. The study reveal a persistent unemployment in Nigeria and concluded that formal credit allocation in rural areas has both short run and long run effect in reducing unemployment.

**2.4.3 Interest rate and unemployment situation**

In examining the relationship between the interest rate and unemployment situation, Cascio (2001) investigates monetary policy and unemployment relationship for 11 OECD countries over 1979: Q11998:Q4 by using Vector Autoregressive (VAR) model. The finding of the study shows that monetary shocks influence unemployment but the way at which it influences differ from country to country. Obamuyi (2009) finding indicate that real lending rates have significant effect on economic growth. Nicholas (2010) also examined the dynamic relationship between interest rate reforms; bank based financial development and economic growth in South Africa using co-integration and error correction models, the study found a strong support for the positive impacts of interest rate reforms on financial development. The study also discovered that interest rate reforms do not cause investment and economic growth. Chete (2006) also investigated the relationship between real interest rate and economic growth in Nigeria. The result showed that there was a unique long run relationship between interest rate and economic growth. Meanwhile, Dogrul and Soytas (2010) investigate relationships among unemployment, oil price and interest rate and found that interest rate shocks left long-term impact on unemployment even though initial impact on unemployment is negative and insignificant.

**2.4.4: Exchange rate and unemployment**

Aside from many factors such as interest rate and inflation, the exchange rate and employment are the major factors that keep importance in country's economic progress **(**Chimnani, Bhutto, Butt, Shaikh and Devi, 2017**).** From the Balassa (1971) perspective, Frenkel and Ros (2006) indicated that real exchange rate serves as a key for development, in the sense that "if the real exchange rate is competitive enough to encourage entrepreneurs to sell in the international market, then firms will invest and hire local labour force and the economy will grow" (Frenkel & Ros, 2006, p. 637). This position was further supported by Agu and Evoh (2011) who claimed that "the appreciation of exchange rate hurts export and encourages imports" (p.3). The study of Obansa, Okoroafor, Aluko and Eze (2013) finding indicate that exchange rate had a stronger impact on economic growth than interest rate. Interest rate was also found to be positive but however had a little impact on Economic growth in the period of regulation than in the deregulation era.

Eze, Onyekachi and Ogiji (2013) examine the impact of fiscal policy on the manufacturing sector output in Nigeria. The study employed error correction model, cointegration test and Ordinary Least Square (OLS) method of estimation. The finding of the finding shows that government tax revenue (GTR) have significant negative impact on manufacturing sector output (MOP) in Nigeria. Frenkel and Ros (2006) study indicate that unemployment is affected negatively by real exchange rate as it reduces the product wage in the traded good sector (a higher real exchange rate meaning a more devalued domestic currency). Chimnani, Bhutto, Butt, Shaikh and Devi (2017) study investigated the effect of exchange rate on unemployment rate in ten Asian countries (1995-2005), using an OLS model, the study reveals that exchange rate has positive impact on unemployment rate.

Djivre and Ribon (2003) study examine monetary policy influence on unemployment, inflation and exchange rate over 1990-1999 for Israel and they found that tight monetary policy shocks increased unemployment. Chuba (2015)'s study examines quantity theory of money and the empirical evidence in Nigeria. The finding shows the impulse response of Consumer Price Index CPI to money supply is

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positive indicating a positive relationship between money supply and the price level. Mbutor (2014) determines the exact portion of the changes that occur in aggregate prices that could be attributed exclusively to the growth in money supply in Nigeria for the period of 1970 to 2012. The gross domestic product, nominal exchange rate, and the maximum lending rate are control variables, while inflation, proxy by the consumer price index and broad money supply are focus variables. All variables are entered in logarithm forms, except interest rate. The impulse response function shows a persistent positive relationship between inflation and money supply. Olorunfemi and Adeleke (2013) examine money supply and inflation rate in Nigeria for the period of 1970 to 2008. The study result indicates that there exists a unidirectional causality between money supply and inflation rate. Meanwhile, another study on unemployment by Valletta and Kuang (2010) as explained by Dogan (2012) shows that the recent increase in unemployment is conjectural rather than structural for the United States. In general, conjectural fluctuations, like fluctuation in exchange rate, international interest rate, and decline in foreign demand are the shocks that extract influence on unemployment. Finally, Chimnani, Bhutto, Butt, Shaikh and Devi (2017), Frenkel and Ros (2006) for Latin America, Burgess and Knetter (1998) for G-7 countries, all found positive relationship between exchange rate and unemployment.

## 3.0 Methods

### 3.1 Research Design

In this study, quantitative research method is adopted using annual series data from Central Bank of Nigeria Statistical Bulletin in obtaining, data relating to the objectives of the study. The choice of this type of design gives the researcher the privilege of observing variables over a long period of time (2006-2016). The study is aimed at testing hypotheses with a view to identifying relationship between relevant variables.

### 3.2 Population of the Study

Subjects for the study consist of time series data that span over a period of 11 years (2006-2016). The selection of the subjects was done in such a way that included all the necessary variables that cut across the economy. The intended selected macroeconomic variables include: Inflation Rate, Interest Rate, Money supply Rate, Exchange Rate influence on Unemployment Rate.

### 3.4 Sources of Data

The nature and source of data for this study is based on secondary data. The sources relied on the articles from recognised journals, data variables that include, unemployment rate, interest and real interest rates data were collected and compiled from the CBN statistical Bulletins for 2006-2016.

### 3.7: Method of Data Analysis

Both descriptive and inferential techniques were employed. These include multiple regression analysis of a single equation model based on method of Ordinary Least Squares (OLS). A linear regression analysis was employed as the tool to examine the relationship between the dependent and independent variables which are selected macro-economic variables (Barron, Ewing & Lynch, 2006)

### 3.8: Model Specification

The model for this study is expressed as: The explicit form of the model is formulated as: Regression Equation: $Y= \alpha + \beta X + \mu$, $Y= \alpha + \beta_1 exrate + \beta_2 findev + \beta_3 inf + \beta_4 intrate + \beta_5 ms$

$Y= \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \mu$,

$Y = -7.347957 + 0.351957 X_1 + 0.000473 X_2 + 0.144869 X_3 - 1.486046 X_4 - 0.000473 X_5 + \mu$

## 4 RESULTS

**Table 2: Descriptive Statistics**

| | FINDEV | INF | INTRATE | EXRATE | MS | UNEMP |
|---|---|---|---|---|---|---|
| Mean | 5774450. | 10.51818 | 16.86308 | 147.2650 | 5774755. | 21.49091 |
| Median | 5127401. | 10.80000 | 16.79031 | 153.8616 | 5127401. | 23.90000 |
| Maximum | 13895389 | 14.50000 | 18.99083 | 161.2300 | 13895389 | 29.50000 |
| Minimum | 15160.29 | 5.400000 | 15.13543 | 118.5669 | 15160.29 | 12.70000 |
| Std. Dev. | 5381916. | 2.745476 | 0.964333 | 15.34911 | 5381558. | 5.392301 |
| Skewness | 0.155584 | -0.301102 | 0.491248 | -0.917906 | 0.155661 | -0.400094 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| Kurtosis | 1.494501 | 2.216697 | 3.849590 | 2.194250 | 1.494527 | 1.935868 |
| | | | | | | |
| Jarque-Bera | 1.083203 | 0.447432 | 0.773254 | 1.842242 | 1.083211 | 0.812477 |
| Probability | 0.581816 | 0.799542 | 0.679344 | 0.398073 | 0.581813 | 0.666151 |
| | | | | | | |
| Sum | 63518955 | 115.7000 | 185.4938 | 1619.915 | 63522309 | 236.4000 |
| Sum Sq. Dev. | 2.90E+14 | 75.37636 | 9.299378 | 2355.950 | 2.90E+14 | 290.7691 |
| | | | | | | |
| Observations | 11 | 11 | 11 | 11 | 11 | 11 |

**Source**: Author (2018)

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. For example, the financial development, inflation rate, interest rate, exchange rate, money supply and unemployment rate has the average (mean) values of 5774450, 10.51818, 16.86308, 147.2650, 5774755 and 21.49091 respectively. The maximum values for financial development, inflation rate, interest rate, exchange rate, money supply and unemployment rate are 13895389, 14.50000, 18.99083, 161.2300, 13895389 and 29.50000 respectively. The result also shows the descriptive statistics including standard deviations, median, minimum skewness and kurtosis for the variables concerned.

**Table 3: Correlation Coefficient**

| | FINDEV | INF | INTRATE | EXRATE | MS | UNEMP |
|---|---|---|---|---|---|---|
| FINDEV | 1.000000 | 0.366663 | 0.092147 | -0.167500 | 1.000000 | -0.014920 |
| INF | | 1.000000 | 0.195145 | 0.374060 | 0.366754 | 0.408539 |
| INTRATE | | | 1.000000 | 0.221278 | 0.092158 | -0.020976 |
| EXRATE | | | | 1.000000 | -0.167456 | 0.924826 |
| MS | | | | | 1.000000 | -0.014881 |
| UNEMP | | | | | - | 1.000000 |

**Source**: Authors (2018)

The Table 3 above shows the result of the correlation coefficient test amongst the variables of interest. The correlation test shows the relationship between the macroeconomic variables and unemployment rate. As shown above, inflation rate and exchange rate positively influence unemployment rate even though the inflation rate has a weak influence on unemployment but in the case of exchange rate, the relationship is strong. Financial development, interest rate and money supply have negative relationship with unemployment rate although they all exact weak influence. The result of the correlation coefficient above also shows the relationships amongst the independent variables. Money supply is positively correlated with financial development, inflation rate and interest rate, while it is negatively correlated with exchange rate. Exchange rate is positively correlated with financial development and inflation rate. Inflation rate and financial development are positively correlated.

**Table 4: Multiple Regression Analysis**

| Dependent Variable: UNEMP | | | | |
|---|---|---|---|---|
| Method: Least Squares | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| | | | | |
| | | | | |
| C | -7.347957 | 10.90622 | -0.673740 | 0.5304 |
| EXRATE | 0.351957 | 0.044629 | 7.886251 | 0.0005 |
| FINDEV | 0.000473 | 0.001274 | 0.371409 | 0.7256 |
| INF | 0.144869 | 0.374809 | 0.386514 | 0.7150 |
| INTRATE | -1.486046 | 0.629972 | -2.358908 | 0.0648 |
| MS | -0.000473 | 0.001274 | -0.371276 | 0.7256 |
| | | | | |
| | | | | |
| R-squared | 0.941304 | Mean dependent var | | 21.49091 |
| Adjusted R-squared | 0.882607 | S.D. dependent var | | 5.392301 |

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| | | | | |
|---|---|---|---|---|
| S.E. of regression | 1.847546 | Akaike info criterion | | 4.368045 |
| Sum squared resid | 17.06713 | Schwarz criterion | | 4.585079 |
| Log likelihood | -18.02425 | Hannan-Quinn criter. | | 4.231236 |
| F-statistic | 16.03679 | Durbin-Watson stat | | 2.158645 |
| Prob(F-statistic) | 0.004253 | | | |
| | | | | |
| | | | | |

**Source**: Author (2018)

The results of the regression analysis in examining the effect of macroeconomic variables on the unemployment situations in Nigeria is given in the Table 4 above. The result shows the effect of exchange rate (exrate), financial development (findev), inflation rate (inf), interest rate (intrate) and money supply (ms) on unemployment situation in Nigeria proxied by unemployment rate. Firstly, the result shows the extent of the impact of macroeconomic variables on unemployment situations in Nigeria which is measured by the coefficient of determination ($R^2$). As shown in the Table, $R^2$ value of 0.941 which by converting to percentage is 94.1% means that the variance or changes in unemployment can be explained by all the macroeconomic variables combined, while the remaining 5.9% can be explained by other factors that are not represented in the present study. The Durbin-Watson statistic of 2.15, shows that there is no autocorrelation. The F-statistic and the probability (F-statistic) of 16.03 and 0.004 explain the overall impact of the macroeconomic variables on unemployment. These values imply that there is a significant relationship between the macroeconomic variables and unemployment situations in Nigeria. That is, unemployment situations in Nigeria can be positively influenced using macroeconomic variables as used in this study.

**Table 5: Test of Hypotheses**

| Hypotheses Testing | Beta | p-value | Decision |
|---|---|---|---|
| ation rate has no significant influence on the rate of unemployment situation in Nigeria | 0.144869 | .0.7150 | Not Sig. |
| ney supply has no significant influence on the rate of unemployment situation in Nigeria | -0.000473 | 0.7256 | Not Sig. |
| rest rate has no significant influence on the rate of unemployment situation in Nigeria | -1.486046 | 0.0548 | Sig. |
| hange rate has no significant influence on the rate of unemployment situation in Nigeria | 0.351957 | 0.0005 | Sig. |

**Source**: Author (2018)

## 5 Discussions

The testing of hypotheses through regression analysis shows that both inflation rate and money supply were insignificant while both interest rate and exchange rate were significant respectively. This finding implies that inflation rate does not significantly influence unemployment situation in Nigeria although the relationship is positive. The positive relationship connotes that the higher the inflation rate, the higher the unemployment situation in Nigeria. This finding agrees with Kooros, Sussan and Semetesy (2006) finding who posited that unemployment and inflation are two major economic problems confronting virtually all economies. This finding agrees with Dogan (2012) which indicates that positive shocks to growth, growth in export and inflation reduce unemployment. This also support Valletta and Kuang (2010) as explained by Dogan (2012) that the recent increase in unemployment is conjectural rather than structural for the United States.

The second finding indicates that money supply is insignificant although the relationship is negative. The negative relationship connotes that the lower the money supply, the higher the unemployment situation in Nigeria. This finding agrees with Dogan (2012) which posited that fluctuation of exchange rate, interbank interest rate and money supply increase unemployment

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situation. This agrees with Cambazoğlu and Karaalp (2012) which found that changes in money stock (m2) impacts on employment and output. This also agreed with Goçer (2013) which shows a reduction in unemployment rate could attributed to increase in lending.
The third finding indicates that interest rate is significant although the relationship is positive. The positive relationship connotes that the higher the interest rate, the higher the unemployment situation in Nigeria. This study agrees with Karanasou and Sala (2010) findings investigated the driving forces behind unemployment in Australia over time and found that the reasons behind unemployment differ according to period investigated. The study shows that for instance in 1970's, the driving force behind unemployment is the problem caused by oil shock while in 1990s and 2000s; interest rate fluctuation is important driving force. This finding also agreed with the study of Djivre and Ribon (2000) which indicate that monetary policy shocks reflected in an interest rate increase induce a rise in unemployment.

The fourth finding indicates that exchange rate is significant although the relationship is positive. The positive relationship connotes that the higher the interest rate, the higher the unemployment situation in Nigeria. The finding of the study shows that monetary shocks influence unemployment but the way in which it influencing differs from country to country. This justified the finding of Obansa, Okoroafor, Aluko and Eze (2013) which claimed that exchange rate had a stronger impact on economic growth than Interest rate, based on the fact that interest rate was also found to be positive but however had a little impact on Economic growth in the period of regulation than in the deregulation era. The finding also in line with Chimnani, Bhutto, Butt, Shaikh and Devi (2017) revealed that exchange rate has positive impact on unemployment rate and Burgess and Knetter (1998) found positive relationship between exchange rate and unemployment. Finally, the study agreed with Rodrik (2005) who claims that there is a need for macroeconomic stability, as it helps to enhance domestic liberalisation, encourages openness, minimise fiscal deficits, minimise inflation, minimise tariffs, maximise privatisation, maximise liberalisation of finance.

## 5.2 Conclusion/ Recommendations

This study empirically, examine the influence of selected macroeconomic variables on the unemployment situation in Nigeria from 2006-2016. The finding indicates that both inflation rate and money supply were insignificant while both interest rate and exchange rate were significant respectively. This shows that both interest rate and exchange rate had a stronger impact on unemployment rate. In view of the foregoing, the study has shown that there is a need for a better understanding of the interaction between the functioning of labour market with macroeconomic variables. Having realised that no developed or emerging economy gains momentum or maintain stability without a consistently sound and coordinated macroeconomic policy, its development serves as an instrument for national planning for growth and development. It is also important to note that the functioning of labour market will be hampered without accurate information about macroeconomic variables, since they represent the sole and independent variables that help to transform the economy and society not only in its development process, but in terms of achieving efficiency, fairness and social protection.
. However, the following are the necessary steps required for unemployment to be reduced to the barest minimum. These are:

i. Governments at all level need to break the rigidity in labour market policy
ii. There is a need for government to implement policy that will bring inflation under control

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iii. There is a need for government to implement policy that will tame macroeconomic variables and bring it under control
iv. There is a need to ensure stable and perfect information for planning, decision making for the benefit of all stakeholders
v. There is a need for government, as a matter of urgency, to address all the operational challenges and threats confronting the labour market in the country.
vi. There is a need for fiscal prudence in order to build a strong savings base to help cushion the economy against domestic and external shocks.
vii. There is need for Nigeria to exploit opportunities in the world economy, maintain macroeconomic stability, achieve high savings and investment rates, and allow markets to allocate resources, and also a need to have committed and focused government.

**References**

Abate, E. & Nandeeswara, R. P. (2015). A co-integration analysis of money supply and price in Ethiopia, *International Journal of Recent Scientific Research, 6*(5), 3972-3979.

Achsani, N. A., Fauzi, F. A. & Abdullah, P. (2010). The Relationship between inflation and real exchange rate: Comparative study between 3 ASEAN, the EU and North America, *European Journal of Economics, Finance and Administrative Sciences*, 18, 69 – 76.

Acs, Z. (2006). How is entrepreneurship good for economic growth?, *Innovations / winter*, 97-107

Agu, U, & Evoh, C. (2011). Macroeconomic policy for full and productive and decent employment for all: The case of Nigeria. International Labour Office, Employment Policy Department - Geneva: ILO, *Employment working paper*; No. 107

Ahmed, A. E. & Suliman, S. Z. (2011). The long-run relationship between money supply, real GDP, and price level: empirical evidence from Sudan, *Journal of Business Studies Quarterly, 2*(2), 68-79.

Akinbobola, T. O. (2012). The dynamics of money supply, exchange rate and inflation in Nigeria, *Journal of Applied Finance and Banking, 2*(4), 117 – 141

Aliero, H.M., Ibrahim, S. S. & Shuaibu, M. (2013). An empirical investigation into the relationship between financial sector development and unemployment in Nigeria. *Asian Economic and Financial Review, 3*(10), 1361-1370.

Amuseghan, S. A. & Tayo-Olajubutu, O. (2009). Spinning off an entrepreneurship culture among Nigerian University Students: Prospects and challenges. *African Journal of Business Management, 3*(3), 80 – 88.

Andolfatto, D. (2002). A theory of inalienable property rights, *Journal of Political Economy, 110*(2), 382-393.

Balassa, G. (1971). Trade policy in developing countries. *America Economic Review, 61*(2), 178-187

Barron, J. M, Ewing, B. T, & Lynch, G. J. (2006). *Understanding macroeconomic theory*, New York, Routledge Madison Ave

Bernanke B.S. & Kuttner, K. N. (2005). What explains the stock market's reaction to Federal Reserve policy? *Journal of Finance, American Finance Association, 60*(3), 1221-1257.

Bhatla, N. (2011). To study the employee Engagement practices and its effect on employee performance with special reference to ICICI and HDFC Bank in Lucknow; *International Journal of Scientific & Engineering Research, 2*(8)

Burgess, S., & Knetter, M. K. (1998). An international comparison of employment adjustment to exchange rate fluctuations. *Review of International Economics 6*(1), 151–163.

Calmfors, L., & Driffill, J., (1988). Bargaining structure, corporatism and macroeconomic performance. *Economic Policy*, 6, 13–61.

Cambazoglu, B. & Karaalp, H.S. (2012). The effect of monetary policy shock on employment and output: The Case of Turkey. *International Journal of Emerging Sciences, 2*(1), 23-29.

Nigerian Journal of Management Studies
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CBN (2012). Central Bank of Nigeria *Quarterly Statistical Bulletin*, Quarter One Section A: Reports, 1, Number 1

CBN (2016). Central Bank of Nigeria *Quarterly Statistical Bulletin*, Quarter 2 section C: Reports, 2, Number 2

Chete, L. N. (2006). The determinants of Interest rate in Nigeria; A Monograph publication of Nigerian Institute of Social and Economic Research (NISER), Ibadan, Nigeria.

Chimnani, H., Bhutto, N. A., Butt, F., Shaikh, S. A. & Devi, W. (2017). The effect of exchange rate on unemployment rate in Asian countries, *Proceedings of 2nd International Conference on Business Management*, retrieved https://www.umt.edu.pk/icobm2012/pdf/2Cpd*[Accessed on* 27/2/2018]

Chowdhury, A. & Islam, I. (2010). Rethinking Macroeconomics from the perspective of the Millennium Development Goals and the Post-Crisis Era Vox. Retrieved on December 1, from http://www.voxeu.org/index.php?q=node/5156

Chuba, M. A. (2015). Quantity theory of money: the empirical evidence in Nigeria, *European Journal of Business and Social Sciences, 4*(6), 13 – 29

Chukuezi, C.O. (2009). Poverty and youth restiveness in Nigeria: implications for national. *Ozean Journal of Social Sciences, 2*(2), 97 – 103

Djivre, J. & Ribon, S. (2000). Inflation, unemployment, the exchange rate and monetary policy in Israel 1990-1999: A SVAR approach research department, *Discussion paper* No. 2000

Doğan, T. T. (2012). Macroeconomic variables and unemployment: The case of Turkey, *International Journal of Economics and Financial Issues*, *2*(1), 71-78

Dogrul, H. G. & Soytas, U. (2010). Relationship between oil prices, interest rate, and unemployment: evidence from emerging market, Energy economy Elsevier 32, 1523-1528

Ernst, C. & Berg, J. (2009). The role of employment and labour markets in the fight against poverty', in OECD, *Promoting Pro-Poor Growth: Employment*, 41-67.

Essien. S. N., Manya, G. A., Arigo, M. O. A., Bassey, K.J., Ogunyinka, S. F., Ojegwo, D.G., and Ogbuehi, F. (2016). Monetary policy and unemployment in Nigeria: Is there a dynamic relationship? *CBN Journal of Applied Statistics Vol. 7 No. 1(b), 209-231*

Eze, O. R. & Ogiji, F. O. (2013). Impact of fiscal policy on the manufacturing sector output in Nigeria: an error correction analysis, *International Journal of Business and Management Review*, *1*(3), 35-55

Fajana, S. (2000). Functioning of the Nigeria labour market, Lagos, Labofin & Co.

Fashoyin, T. (1986). *Incomes and inflation in Nigeria*, Ibadan, Longman, Nigeria

Fashoyin, T. (2010). Trends and developments in employment relations and the world of work in developing counties. *The intl. Journal of Comparative Labour and Industrials*, *26*(2), 119-139

Fisher, Irving (1930). *The Theory of Interest*, New York: The Macmillan Company.

Frenkel, R., & Ros, J. (2006). Unemployment and the real exchange rate in Latin America. *World Development*, *34*(4), 631–646.

Friorentini R. & Tamborini R. (1999). Monetary policy, credit and aggregate supply: The Evidence from Italy. *Paper presented at the Royal Economic Society Conference, Nottingham*, 29-3/1-4.

Future Watch (2007). Human capital development reports, by Centre for Public Service Innovation *in collaboration with* the South African Management Development Institute (Samdi)

Gbosi, A.N. (2005). The dynamics of in Nigeria's depressed economy. Inaugural lecture managing chronic unemployment (Series No. 42). *Presented at University of Port Harcourt*, 3 June.

Göçer, I. (2013). Relation between bank loans and unemployment in the european countries. *European Academic Research*, *1*(6), 981-995.

Grétarsdóttir, M. (2008). Emotional Intelligence the Importance of Emotional Intelligence in the Recruitment Process, *Aarhus School of Business Master Thesis*, University of Aarhus

Harding, D. & Pagan, A. (2001). Extracting, Analysing and using cyclical information. *MPRA*, Paper No.15

ILO (2008), Report IV: Promotion of rural employment for poverty reduction, *International Labour Conference*, 97th Session, ILO, Geneva.

Nigerian Journal of Management Studies
Vol. 18, No. 1, 2018, 90-102

IMF (2015). *Global Implications of Lower Oil Prices, retrieved*. https://www.imf.org/external/pubs/f *[Accessed on* 19/2/2017]

Jareno & Negrut (2016). US stock market and macroeconomic factors Francisco, *The Journal of Applied Business Research 32*(1), 325-340

Johnston, M. P. (2014). Qualitative and quantitative methods in libraries (QQML), 3, 619 –626,

Kalluru, S. R. & Bhat, H. K. (*2009)*. Does foreign bank entry affect operations of domestic banks? A study on Indian Public Sector Banks, *The IUP Journal of Managerial Economics, IUP Publications, 3*(4), 40-51

Karanassou, M., Sala, H. & Snower, D.J. (2006). The macroeconomics of the labor market: three fundamental views, *IZA Discussion Paper Series*, No. 2480 December

Kooros, S. K., Sussan, A. P. & Semetesy, M (2006). The impact of oil prices on employment, *International Research Journal of Finance and Economics,* 5: 136-154.

Krugman, P. (2011). *Way off base. The New York Times.*

Kuruvilla, S. & Erickson, L. (2002). Change and transformation in Asian Industrial Relations, *Industrial Relations*, 41, 171-228

LASG Economic and Fiscal Update (2013) – Fiscal strategy *Paper for* 2014-2016, 1-*26*

Ludwig, V. M. (1912). *The theory of money and credit* (Chapter 8, Sec 6)

Maitah, M. (n.d. 2018). Labor market and unemployment extracted on *14th March, 2018* from www.maitah.com/Macroeconomics/Labor%20Market%20and%

Mbongo, J. E., Mutasa, F. & Msigwa, R. E. (2014). The effects of money supply on inflation in Tanzania, *Economics, 3*(2), 19-26

Mbutor, O. M. (2014). Inflation in Nigeria: how much is the function of money, *Journal of Economics and International Finance, 6(*1), 21 - 27.

Mouhammed, A. H. (2011). Important theories of unemployment and public policies, *Journal of Applied Business and Economics, 12*(5) 100-110

Nicholas, M. O. (2010). Interest rate deregulation, bank development and economic growth in South Africa: an empirical investigation. *International Business and Economic Journal, 9*(11), 131-142.

Obamuyi, T. M. (2009). An investigation of the relationship between Interest rate and Economic growth in Nigeria, 1970-2006. *Journal of economics and International Finance*, 1(4), 93-98.

Obansa, S. A. J., Okoroafor, O. K. D., Aluko, O. O., & Eze, M. (2013). Perceived Relationship between Exchange Rate, Interest Rate and Economic Growth in Nigeria: 1970-2010, *American Journal of Humanities and Social Sciences, 1*(3), 116-124

Odiba, E. O., A. S. Apeh & Daniel, E. J. (2013). Money supply and inflation in Nigeria 1986-2009, *Journal of Business and Organizational Development*, 5, 1.

Okafor, E. E. (2008). Development crisis of power supply and implications for industrial sector in Nigeria, *Studies Tribes Tribals, 6*(2), 83-92

Okafor, E. E. (2011). Youth unemployment and implications for stability of democracy in Nigeria. *Journal of Sustainable Development in Africa*, *13*(1), 358-373

Okafor, E. E. (2012). Non-standard employment relations and implications for decent work deficits in Nigeria, *African Research Review, 6*(3*),* 26, *93-108*

Olorunfemi, S. & Adeleke, P. (2013). Money supply and inflation in Nigeria: implications for national development", modern economy, *Scientific Research*. 4, 161-170,

Olowe, O. (2011). Macroeconomic dynamics and financial crisis in Nigeria, *African Journal of Marketing Management, 3*(10). 241-252,

Pal, K. & Mittal, R. (2011). Impact of macroeconomic indicators on Indian capital markets. *Journal of Risk Finance, 12*(2), 84-97.

Pigou, A. C., (1933). *The theory of unemployment,* London: Macmillan.

Pissarides, C. A. (1992). Loss of skill during unemployment and the persistence of employment shocks. *The Quarterly Journal of Economics November, 107*(4), 1371–1391

Nigerian Journal of Management Studies
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Rodrik, D. (2005). Growth Strategies, in P. Aghion and S. Durlauf, eds., Handbook of Economic Development

Rumler, F. & Scharler, J. (2009). Labor market institutions and macroeconomic volatility in a panel of OECD countries, February 2009. http://www.ecb.europa.eu

Schumpeter, J. A., (1934). *The theory of economic development*. Harvard University Press, Cambridge, Ma.

Shadare, O. A. & Elegbede, S. K. (2012). Graduate unemployment in Nigeria: causes, effects and remedies, *British Journal of Arts and Social Sciences;* 5*(2) retrieved http://www.bjournal.co.uk/BJASS.aspx [Accessed on* 11/5/2017]

Simiyu, C. N. & Ngile, L. (2015). Effect of macroeconomic variables on profitability of commercial banks listed in the Nairobi Securities Exchange, *International Journal Of Economics, Commerce And Management, III*(4), 1-16

Standing, G. (1983). The notion of structural unemployment, *International labour review, 22*(2), 137-153

Stiglitz, J. (2001). *Information and the change in the paradigm in economics*, Columbia Business School, Columbia University, 1022 International Affairs, Building, 420 West 118th Street, New York

Stiglitz, J. D. (2009). Moving beyond market fundamentalism to a more balanced economy, *Annals of Public and Cooperative Economics, 80*(3), 345–360

Tocco, B., Davidova, S. & Bailey, A. (2012). Key Issues in Agricultural Labour Markets: A Review of Major Studies and Project Reports on Agriculture and Rural Labour Markets. *Factor Markets Working Paper* 20. Brussel: Centre for European Policy Studies.

Todaro, M. P. & Smith, S. C. (2009). Economic development, (10th Ed.). England, Addisin-Wesley

Udu, E. & Agu, G.A. (2005). *New system economics.* Onitsha; Africana First Publishers Ltd.

Valletta, R. G., & Kuang, K. (2010). Extended unemployment and UI benefits. Economic letter 2010-12. *Federal Reserve Bank* of San Francisco.

World Bank Group (2015). *Global Economic Prospects, January 2015: Having Fiscal Space and Using It*. Washington, DC: World Bank. Retrieved from https://www.worldbank.org Worldbank/.../GEP2015a/pdfs/GEP15*[Accessed on* 4/2/2016]

World Economic Forum (2014). *The global competitiveness report*, 2014–2015

Zeitun, R., Tian, G. G. & Keen, S. (2007). Macroeconomic determinants of corporate performance and failure: evidence from an emerging market the case of Jordan. *Corporate Ownership and Control, 5*(1), 179-194.