# **TITLE PAGE**

# THE IMPACT OF SALARY INCREASE ON INFLATION IN NIGERIA.

# IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELOR OF SCIENCES (B.SC)

BY

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# CERTIFICATION

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# DEDICATION

To God almighty who gave me the wisdom to carry out this work and to my parent who made my studies a success.

#### ACKNOWLEGEMENT

The most pleasant way of writing a project is the opportunity to express ones gratitude to those that contributed in one way of or the other toward the success of the work. My first thanks must go to my lovely parent MR &MRS Harry Ukonta , my siblings, who contributed immensely to completion of my study, friends Oprah, Constance, Blessing, Chisom, Michael, my lovely roommates who also help to either stimulate or sustain my interest in writing this project.

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#### ABSTRACT

No economy can escape the evils done is by inflation and unemployment because when measures to control one are being employed the other is being upset. However, we are dealing with inflation alone. In fact, this study investigates the impact of salary increase on inflation in Nigeria. In a bid to achieve the objective of the study, ordinary least square regression method was adopted using secondary data from 1984 to 2009 the results indicate that there is a negative relationship between the dependent variable (inflation) and the independent variable (salary). The result of study showed that salary increase has a negative relationship with inflation and salary does not have a significant impact on inflation in Nigeria, therefore inflation is not adequately explained by changes in salary. Hence, inflation should be track led adopting other fiscal and monetary measures and not necessarily income policies

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#### **CHAPTER ONE**

#### **INTRODUCTION:**

#### **1.1 BACKGROUND OF THE STUDY.**

The Nigerian economy is a middle income economy emerging market with developed financial, legal, communication, transported entertainment well sectors. It is ranked 31<sup>st</sup> in the world in terms of gross domestic product (GDP)as 2009 and its emergent through currently under performing manufacturing sectors is the second largest on the continent, for the west African region scholars have characterized the Nigerian economy to be associated with a high cost of living putting it in words,(EKAN 1998)states that Nigerian economy is characterized by high cost of living which is resultant effect of the persistent increase in the general price level in the economy. In an effect to solve the problem of low standard of living, government expenditure has been on the continual increased which is partially caused by trade unions agitations and partly by continual increase in prices of goods and services in the product and factors markets in the product.

Since the independence the country's recurrent expenditure has been on the increase in 1970 total recurrent expenditure stood at two thousand seven hundred and thirty four naira, ninety kobo in 1980 when the economy was on a

persistent growth our recurrent expenditure stood at four thousand eight hundred and twenty kobo in 1986 when SAP (structural adjustment programme) was introduced it.

Stood at seven thousand, six hundred and ninety nine kobo. The increase in the country's recurrent expenditure was necessitated by the need to create employment and increase money supply to match the output level. (NBS, 2009).

However, the purchasing power of the average Nigerian has been reducing because of the increase in price level in the economy. In an attempt to solve this problem, various perspective and annual plans have been formulated and implemented. Examples are the vision 2020, vision 2010, and Yaradua's 7 points agenda, Millennium goals and 2013 budget by Goodluck Jonathan.

The problem of inflation is a national nightmare to economic growth and development. It should be noted that it cannot be eliminated absolutely. In an actual sense, inflation rate can only be reduced to bearable limit. It should also be noted that inflation is not faced by less developed countries alone but the Western countries are also facing the problem.

For Nigeria, as the general price level is on the increase so is the recurrent expenditure which has created the inflationary gap in the economy (WAHAB 2004). This research is investigating the impact of salary increase on inflation in Nigeria.

# **1.2 STATEMENT OF THE PROBLEM.**

The problems that occur when salaries are increased are raising labour costs which in turn lead to cost push inflation. As workers demand wage increases, companies usually choose to pass on those costs to their customers through price increases, thus causing inflation that is where prices are forced upwards because when people have much money with them. It increases aggregate demand.

Also wages increase leads to retrenchment of workers thus causing inflation has tremendous impact on the output and employment decision by firms because inflation distorts the price mechanism by making it difficult to distinguish changes in the general prices level, it creates uncertainty making the investors less willing to take risks and invest especially in long term project, inflation push up real interest rates as lender demand a bigger risk premium on their money.

This work therefore aims at investigating the impact of salary increase on inflation in the Nigeria economy. For the purpose of this study the salary

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increase as represented with federal government recurrent expenditure excluding social service, economic service, transfers. If government wants to solve the problems of inflation it will end up creating unemployment .As a result of this, various economics theorists have theorized about the relationship between salary increase and inflation thus giving rise to the theories, causes and effects of inflation.

# **1.3 OBJECTIVES OF THE STUDY.**

This research is solely aimed at finding out the impact of salary increases on inflation in Nigeria. The specific objectives of the study are as follows;

- 1. To investigate the impact of salary increase on inflation in Nigeria.
- 2. To examine the trend of inflation in Nigeria over the years.

#### **1.4 STATEMENT OF HYPOTHESIS.**

Based on our study of the impact of salary increase on inflation in Nigeria, the research question has been used to formulate the following hypothesis;

- Ho: Salary increase does not lead to inflation in Nigerian.
- Hi: Salary increase has caused inflation in Nigeria.
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#### **1.5 SIGNIFCANCE OF THE STUDY.**

This study will be useful to policy makers in the economy to aid them formulate sound economic policy that will keep inflation at the barest minimum in the economy. The study is also important to other researchers in this field as a reference materials to aid them in their own research that are yet to be conducted.

#### **1.6 SCOPE AND LIMITATION OF THE WORK**

The Nigerian economy with a labour force of 47.33million persons who produced a national income of \$353.2billion (CBN 2009) is dominated by the public sector because 65% of the labour force are employed in the public sector, 20% in commercial activities, 10% in agricultural activities and 5% in the services (NBS 2009). The above data imply that the study will cover government employees alone because they dominate the labor force in the country. Data collected from a secondary source ranged between 1984 to 2009. The year 1986 was chosen because that era was characterized by the SAP (Structural Adjustment Program me).

However, this study has its limitations, which include;

- 1. There are very limited materials for the research. This is because few authors have thought on this issue.
- The unfriendly attitude of staff of various ministries and companies where I went to collect materials because of secrecy and other reason like money.
- 3. Difficulties in collecting data relating to my project. Due to not enough information was available. After all the difficulties I still got few materials that will help enrich my project.

# **CHAPTER TWO**

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# THEORETICAL REVIEW

This segment of this research will review literatures on the topic understudy which includes researching of other people's work/opinion on the topic and also other theories on inflation causes of salary increase, positive and negative effect of salary increase and also on what salary increase can do in the economy.

Inflation refers to a sustained rise in the prices of goods and services. When inflation occurs, the buying value of a currency unit erodes, meaning that a person needs more money to buy the same product. It is obvious that inflation is one of the problems that is not desired by an economy despite the fact that it is necessary for economic growth to take place.

In Nigeria when inflation occurs in a place it also has some positive impact like increase employment of youths and also it helps in the development and growth of a country (Jhingan, 2006).

In Nigeria, salary increase can do so many things in an economy, when people's salary is being increased it leads to too much money in the economy leading to inflation and also when people's salary increases it will lead to increase in people taste, making the industries to employ too many people in order to give the society what they want.

And also salary increase can lead to the rich becoming richer and the poor becoming poorer.

The normal inflation rate for any country is 1% any rate more than 1% is not recommended but in Nigeria in 1973, the economy recorded an inflation rate of

1% and the Udoji's salary award raised inflation from 13.8% in 1974 to 34% in 1975, this was as a result of the increment in salary wages of government workers in the country (NBS, 2009).

## 2.1.1 WAGE INDUCED INFLATION

One aspect of cost of production that changes very much is the cost of labour. If as a result of the pressure from trade unions or government, the employers are made to pay more for having the services of labour, the cost of production is bound to be affected. With increase in the cost of production, employers increase the price of their commodities to cover the cost of production plus some profit. The result is this rise in prices, is wage-induced inflation (Okeke, 1986).

#### 2.1.2 TYPES OF INFLATION

Inflation is a persistent in the general price level in an economy. Based on this Okomoko, (2006) identified the following:

- 1. Creeping inflation.
- 2. Galloping inflation.

- 3. Running inflation.
- 4. Imported inflation.

The inflation in the exporting country will be transferred to the importing country. Let's assume that Ghana import her raw material from Nigeria and Senegal. The inflation in Nigeria and Senegal will obviously result to inflation in Ghana. If the costs of imported raw material are high definitely, the cost of locally produced good will is high. A rise in the price of import leads to high prices for local goods and services such as in the case of cost push, an inflationary spiral is set in motion. With reference to the above, the inflationary spiral can be brought to an end by the use of appropriate economic aggregate supply at full employment output, though at a higher price level (Onwuteaka, 2008).

# 2.1.3 THEORIES OF INFLATION

# A. Keynesian theories of Inflation:

The debate between Keynesian and monetarists with respect to inflation concern the strength of competitive Keynesian theory of inflation and the noncompetitive Keynesian theory of inflation. However, for the Keynesian, the arrow of causation in the equation of exchange. MV=PY is from right to left in prices cause increases in many  $MV \rightarrow PY$  (Keynesian causation).

## i. The Quasi-Competitive Theory of Inflation:

The quasi-competitive theory of inflation (as advocated by James Tobin et al) states that at competitive equilibrium "structural imperfections" inherent in a monetary economy generate upward pressure on the price level. That is, Keynesians see perfect competition as unstable on many markets. These activities called "invisible foot" place an upward pressure on the price level (Anyanwu et al 1995).

# ii. The Non-Competitive Keynesian Theories of Inflation:

The non-competitive Keynesian theories of inflation generally assume that force of competitive to be so weak that a useful model of inflation should not focus on competitive or market forces; it should instead focus on real institutions or on specific institutional arrangements in markets. Thus the first variant of these theories focuses on specific markets either the product market or the labour market and the problem of inflation and discussed while centering on the institutional arrangement in that particular market.

# **B)** The Monetarist Theory of Inflation:

Monetarists see the arrow of causation in the equation of exchange MV=PY as going from left to right: increase in money cause increase in price. Monetarist supply growth (generally in some lagged fashion. Two-year-lag relationships) by the central equation.

P = price levelM = money supplyV = velocity

Q = real output

The monetarist theory of inflation assumes that the change in velocity V is primarily institutionally determined as in the growth in real output Q, therefore, monetarist see these two variables exogenous, leaving inflation to be determined by the rate of change in the money supply in excess of change in velocity minus change in the price level, it can occur only if there is a continual increase in the money supply. It is therefore opined that the only lasting predicable and controllable source of inflation is the monetary growth. To them the argument for raising the money supply are short run, the arguments against are long run. Recognizing these policies will continually increase the money supply to higher levels, even though they may be fully aware of the long run inflationary consequences. (Anyanwu et al 1995)

#### 2.1.4 CAUSES OF INFLATION.

The insufficiency of output in less developed countries has been the primary cause of inflation in this part of the world. As a matter of fact only third world economics are faced with the problem of unemployment at the same time which can be said to be stagflation where an economy that is stagnated is still characterized with a high inflation rate JHINGAN (2006).

However, inflation and stagflation are caused by several other factors despite the insufficient output level. They will be briefly explained below.

- 1. **High population growth rate:** A high population growth rate will lead to an expansion in aggregate demand if output level is low the inflationary gap will emerge. Also, if population growth is not accompanied by necessary institutional changes.
- 2. **Natural disasters**: The supply of goods and services can be obstructed with the natural calamities will cause fluctuation in the price level because of inconsistency of production activities thus, leading to the inflationary gap.
- 3. **Rural-urban drift:** The movement from rural areas to urban areas is necessary in an economy. But such movements generate a lot of

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pressures goods and services in the economy and may lead to inflationary tendency.

- 4. Monopolistic activities of middlemen: There are too, many middlemen in the chain of distribution of goods and services in Nigeria, for instance. These people are very exploitative hence they hoard available goods in order to sell at higher prices in black markets. Many others who have the influence from government quarters monopolize the supply of certain essential commodities thereby charging higher prices than what ought to be.
- 5. Higher production costs: Higher wages, as in the case in Nigeria, are higher costs of production. These may hinder increased productivity, thereby resulting in inflation. Or the higher production costs are passed onto consumers in the form of higher prices on commodities. ANYANWU et al (1995).
- 6. **Increase in money supply:** Increase in money supply leads to increase in aggregate demand. The higher the growth rate of the nominal money supply, the higher the rate of inflation. Modern quantity theorists do not believe that true inflation starts after the full employment level. This view is realistic because all advanced countries are faced with high levels of unemployment and high inflation rates.

7. **Increase in exports:** When a country produces more goods than for domestic consumption, this creates shortages if goods in the domestic market. This leads to inflation in the economic JHINGAN (2004).

#### 2.1.5 INFLATION IN NIGERIA

Inflation has been a major problem in the Nigerian economy right from the period of civil war (1966 – 1970). Prior to this period, the economy was growing steadily until the first military intervention. That era was characterized with deliberate fiscal and monetary policies, as at then the economy was relatively at equilibrium. Ande, (2008).

As a result of increased government activities a deficit budget became necessary to the economy. In 1973, the economy recorded an inflation rate of 6% accompanied with the devaluation of the Naira which increased the prices of imported goods CBN, (1975). The following year, the Udoji salary award raised inflation from 13:8 percent in 1974 to 34percent in 1975. This was as a result of increase in salaries/wages government employers in the country.

The country's inflation as at 1986 was 5.4 percent. It was this era that was characterized with the structural Adjustment Program (SAP) and the second tier foreign exchange market. However, highest inflation rate was recorded in

1994 when it stood at 57.0 percent. Since then the rate of inflation has been creeping due to trade union's agitation which has kept federal government's recurrent expenditure on the increase. Various military and civilian administrations have introduced and implemented policies that will help solve the problem that all efforts have been proven inadequate up till now Nigeria has not attained even the acceptable rate of inflation. Ande, (2008)

#### 2.1.6 MONEY SUPPLY AND INFLATION

Money supply means the amount of money in an economy. This may be the country's own money, supplied by its banking system or foreign money used in preference to domestic money. Or it may be the quantity of money that depends on the interest rate that a person could earn by using the money to buy an interest bearing bond rather than leaving it in a wallet or low interest yielding account. While inflation means an increase in the general price level as measured by a price index Onyemelukwe, (2004).

Money supply and inflation are linked because a high quantity of money usually devalues demand for money. Imagine if everyone in a small town got a 150 US Dollars (USA) raise in salary per month. These people may have been paying \$10 USD a week for gasoline, but since their raise was substantial, would now probably not mind paying \$11USD a week for gas, because it is still proportionally less than what they were paying before the raise. This is sometimes how the relationship between money supply and inflation begins, when the market can bear higher prices because money supply has gone up, yet a consume can't buy a product for the price it was before inflation occurred because the buying power of the currency has eroded. Onyemelukwe, (2004).

The relationship between money supply and inflation as explained differently depending on the type of economic theory used. In the quantity of money theory, also called monetarism, the relationship is expressed as MV = PT or money supply x money velocity = price level x Transaction. The velocity and Transactions are considered to be constants, so according to this explanation supply and prices have a direct relationship. In Keynesian theory, while there is still a relationship between money supply and inflation, it is not the only large factor that can affect inflation and prices.

Generally, Keynesian theory stresses the relationship between total or aggregate demand and inflationary changes. Changes in money supply are often used to try and control inflationary conditions. When a region is trying to lower inflation, central banks will generally lower, lending rates and increase interest. When inflation drops below a target level, these standards are generally relaxed in an attempt to stimulate the economy. Usually, countries use federal banking systems to set lending and interest limits based on economic data unreserved money supply increases can sometimes bad to a condition called hyper-inflation. This occurs when inflation jumps extremely high in a short period of time, though the exact definitions are some what variable. Economists often say hyper-inflation occurs when inflation jumps 50 percent in a month, but other estimates are also used.

Money supply and hyper inflation are linked because the condition can result from a sudden massive pouring of money into an economy with no associated rise in production or availability of goods. If in the first example, the towns got a raise of \$500 USD a month, then the price of gas could suddenly multiply by times, causing an extra ordinarily high level of inflation. Onyemeckukwe, (2004).

#### **2.1.7 Salary and Inflation**

Inflation and salary are interrelated. High inflation demands increase in wages salary to maintain the current life style salary at higher prices. When wages are increased it further fuels the existing inflation as well as wages inflation. There are major wages disparities in the country. Wages/salary differ from region to region and between different sectors too like the organized and the unorganized sector the public and private sector too like the organized and the unorganized sector, the private sector while the minimum wages/ salaries in the private sector are entirely according to the private sector are entirely according to the employer's capacity to pay the employees. There is no upper limit of wages since skilled labour is scare; private firms compete for skilled human resources. They try to attract and retain skilled employees by offering them high salaries and many other benefits like higher education, luxury accommodation, transportation, club membership etc. the living wage is skyrocketing. It's a phenomenon which Nigeria is witnessing since. 1991 when the economy was opened up and the private sectors become a major player. At the lower and too the government keeps revising the minimum wages to keep place with the inflation/rising cost of living. Minimum wages have risen from Rs 40/ day in 1991 to Rs 45 in 1998 Rs 50 in 2002. Rs 66 in 2004, Rs 80 in 2007 and Rs120/day at present for unskilled labour.

#### 2.1.8 Measurement of inflation:-

Inflation is measured by the use of index numbers. Index numbers expresses the cost of a market basket of goods relative to it's cost in some base period when constructing index number it is conventional to set at 100 in the base year. However, the following are the index we can use to measure inflation Afere, (2000). a. Consumer price index (CPI): this is the most popular amongst all. This measures the percentages changes in the index number over a specific period usually a year. It should also be noted that this techniques, measures only consumer goods and as such it is not absolutely acceptable. The formula is given below Okumoko, (2006).

#### Period 2 index-period index 100

#### Period 1 index.

- b. Whole sale price index: this index measures the prices that produces receive for produce receive for product at all stages of production and not just final goods and services. The index are calculated for three different types of goods (that is intermediate product finished product and crude products). An advent age this index over CPI is that this one defects inflationary tendencies early in the products process. (Okumoko, 2006).
- c. The GDP deflator: This one is not based area sample survey as the CPI. It is directed at finding the index for all goods and services purchased by consumer's business men and government. It is calculated by taking the GDP at factor cost using constant prices. Inflation is indicated when nominal GDP is using faster than real GDP, in a nutshell the GDP deflators is calculated as:

GDP Deflator = Nominal GDP 
$$x = 100$$

#### Real GDP

(IYOHAetal, 2002)

# 2.1.9 Effect of Inflation in Nigeria

The impacts of inflation in the economy can be decomposed into positive and Negative effects because inflation redistributes income in the society. Those who anticipate the rise in the price level stand to gain in the event of such rises. This is because they would have made provision to counter the effect of such rises. This is because they would have made provision to counter the effect of such increases on their demand and expenditure patterns and also make gains form such increases example of such person is debtors owners or real assets, speculators, business organization even government gain in time of inflation because if progressive tax is adopted more money will be collected as tax in times of inflation it should be noted that even the macro economics benefits from inflation because a rise in the price level will stimulate the production of goods and service in the economy if only it was in less than full employment level, Oyesushi, (2002).

# 2.1.10 The positive impacts of wages increases on inflation in Nigeria.

According to okeke (1986) the positive impacts of wages increase on inflation in Nigeria are as follows:

1. It encourage greater output:-

Inflation is usually experienced during intense economic activities. Whatever that is produced, there is usually favorable market for it. Since producers make profit out of goods they produced and sold, they are encouraged by the huge profit to produce more with a view to making more profit.

- 2. It brings out inequality of income: Business and other workers whose income are not fixed are likely to again during the federal of inflation with the result that they accumulated capital which they use for other economic undertakings, if they choose to on the other hand workers like the civil servant, public servants in general and other employees whose salaries are fixed are likely to loose during inflation. This is because; their salaries would buy lesser quantity goods during inflation.
- 3. Inflation induces employment:- since producers are forced by the profit motives to produce more of during inflation, they need to employ more workers who have been out of work will now be employed with the result that they obtain.

4. Inflation can induce further investment and development. Those who gain during inflation tends to be encouraged by the increased amount of money at the disposal or savings will be increased to enable them invest more for the economic development of the country.

# 2.1.11 The negative impact of wage increase in Nigeria.

According to Okeke, (1986) the negative impact of wages increase on inflation in Nigeria areas follows;

- Income earners suffer: inflation could cause most income earners to suffer because inflation reduces the value of money that is the purchasing power of money.
- Unemployment: inflation could cause the closure of some establishments, which could note cope with the rise in the cost of production. This could lead to unemployment.
- 3. Savings and lending are Discourage: Because of less in the value of the currency or money, savings will be difficult while lending would be discouraged, because most people will not want to borrow at the time of inflation as a result of high interest rate associated with it.

#### **2.2 EMPERICAL LITERATURE**

Under here we studied the inflation rate in other parts of the world. The historical and current inflation rates in the United States: - 1973 to current.

This inflation of the United States has varied from A 13.5% high to A-4% how. And for a normal country their inflation rate should not be more than 1%. In the United States, the inflation rate is measured by the Bureau of labour statistics (BLS) which tracks the change in price of a basket of over 200 goods and services and records this number each month.

In the table below are the average inflation rates from the most recent years back to 1973. You can see in recent history the highest annual inflation rate was 13.5% in 1980. The lowest annual inflation rate was 2009, technically at the period there was deflation in the United States.

# Year inflation rate

2009 deflation: - -4%

- 2008 inflation: 3.8%
- 2007 inflation: 2.8%
- 2006 inflation: 3.2%

2004	inflation: - 2.7%
2003	inflation: - 2.3%
2002	inflation: - 1.6%
2001	inflation: - 2.8%
2000	inflation: - 3.4%
1980	inflation: - 13.5%
1973	inflation

These are the years and their inflation or deflation rate. And during this period the price of gasoline, grocery and food stuffs increased.

And we also study the inflation rate in other countries like Europe and Indian and so on. They also had inflation problem, but correction of inflation in a country will lead to other problems, so it just to tell us that inflation cannot be stop but instead be reduced.

# 2.3 Limitations of the pervious study.

However, the study has its limitation which includes;

- 1. Limited materials or published work for the research.
- Poor record keeping: During my visitation to organizations for collecting old record on my topic, some file were misplaced due to poor record keeping. After all the difficulties I still got few records that helped enrich my project.

All of the empirical literatures quoted above are absolutely related to the topic under study presently but this research is the unique form of the impact of salary increases on inflation in the whole country (that is government employees) and not just a segment of the country. Another gap between this research and all the fore mentioned ones is the one that took covered from 1984 to 2009.

#### **CHAPTER THREE**

#### **RESEARCH METHODOLOGY**

This chapter being the third chapter of this research work deals with the methodology adopted in analyzing the variables in the research. Also the sources and kinds of data collected will be examined.

# **3.1 RESEARCH DESIGN:**

According to the APERE (2004), a research design is a program that guides the researcher in the process of analyzing, collecting and interpreting observations.

According to AGU (2007), a research design means the type or plan of the research work. It contains the rationale for choosing the method. Here the researcher is expected to name which of the many research method he /she had chosen to carryout his/her research study.

KILLINGER (1970) defined it as a systematic compelled, empirical and critical investigation of hypothetical proposition about presumed phenomena.

A research could either be experimental, historical, survey, descriptive and descriptive case study. Others are observational and correlation studies AGU (2007). This particular research is experimental because it tries to explain the relationship between the two variables (inflation and salary increases) and what causes changes amongst them. However, salary increase was indexed by Federal Government Recurrent Expenditure.

In actual sense this research work was aimed at solving the problem caused by salary increase in the inflation status of Anambra State but because of the unavailable of data from Anambra State, data was accessed from federal parastatals and as such the topic is now generalized on the whole country.

# **3.2 MODEL SPECIFICATION.**

If any data is to be analyzed, econometric model is required in order to reduce the mass of data collected into a concise form. For this research we will use the ordinary least square method, and adopt the simple regression model because we are dealing with the independent variable (salary) and the dependent variable (inflation).

Hence, the regression model is stated below:

INF = Bo + B1 (SBOFGN) + Ut.

As a result, ordinary least square method will be adopted,

Where,

Ut = Error Term

INF = Inflation,

SBOFGN = Salary bill of the federal government of Nigeria.

Bo = Model intercept or constant term,

B1 = Coefficient of the independent variables.

The parameters are Bo and B1.

# 3.3 APRIORI EXPECTATION.

The coefficient of salary bill of federal government of Nigeria (B1) is expected to be positive. This is because an increase in the salaries of employees will lead to higher purchasing power and as such will cause inflation ceteris paribus according to economic theorem.

# 3.4 SOURCES OF DATA COLLECTED.

As a result of the nature of the topic, secondary data have been accessed from the following institution;

# **1.** National Bureau of statistics.

All the aforementioned are quite reliable as far as research is concerned.

# 3.5 JUSTIFICATIN OF THE MODEL.

The simple regression technique is easy and simple to compute and the data requirements are not excessive. It requires only two variables namely dependent and independent variables which is salary and inflation.

# **CHAPTER FOUR**

# PRESENTATION AND INTERPRETATION OF RESULTS

# 4.2 PRESENTATION OF RESULT

The estimates from the regression carried out are presented and analyzed in this chapter. As stated in the previous chapter, the modeling procedure employed in the work is the ordinary least square.

The result of the regression with one regressor is presented in the table below.

# Table 4.2: Presentation of result

Linear re	gression				Number of obs =30 F( 1, 28) =2.20 Prob > F = 0.1495 R-squared = 0.0364 Root MSE = 18.033
inf   Interval]	Coef.	Robust Std. Err.	t	P> t	[95% Conf.
lsbofng  .6603619 _cons   23.85036	-1.728193 13.48888	1.166055 5.058311	-1.48 2.67	0.149	-4.116748 3.127396

Therefore;

# INF= 13.48888 - 1.728193LSBONFNG + u

# 4.3 INTERPRETATION OF THE REGRESSION RESULT

# **4.3.1 ANALYSIS OF REGRESSION COFFICIENTS:**

From the result above, when all the independent variables are equal to Zero, the intercept for the GDP becomes 13.48888.

**SALARY (LSBONFNG):** the coefficient of salary is -1.728193; implying that a unit increase in salary will decrease inflation by 1.728193 units. This shows a negative relationship between salary and inflation.

# **4.3.2 ECONOMIC CRITERIA (A PRIORI EXPECTATION):**

The economic criteria involve the process of ascertaining if the obtained findings conform to the a priori expected sign.

 Table 4.2: a priori expectation

Variable	Expected sign	Obtained sign	Remark
LSBONFNG	+	-	Does not conform

Table 4.2 shows that salary does not conform to the a priori expected sign.

# **4.3.3 STATISTICAL CRITERIA**.

This test includes;

# • Goodness of Fit Test (R<sup>2</sup>):

From the result obtained in the regression  $R^2$  is 0.1905, showing a goodness of fit of 0.0364%, on the grounds that the explanatory variable explains 3.64% of the explained or dependent variable (inflation).

# • Student's t-test:

In order to test if the independent variables are statistically significant, we use the n-k degree of freedom at 0.05 level of significant. At 0.05 level of significance, the critical value is 2.0484. The decision rule is to reject the null hypothesis (H<sub>0</sub>) if t-cal > 2.0484 and accept it if otherwise.

 Table 4.3: The t-test.

Variables	T-Statistic	5% critical value	Decision
Constant	2.67	±2.0484	Significant
LSBONFNG	-1.48	±2.0484	Insignificant

From the result, LSBONFNG is seen to have an insignificant impact on inflation.

# Hypothesis testing:

The hypothesis stated is;

H<sub>0</sub>: Salary increase doesn't lead to inflation in Nigeria.

H<sub>1</sub>: Salary increase causes inflation in Nigeria.

From table 4.3 above, the t-test revealed that salary has no significant impact on inflation in Nigeria. Thus we accept the null hypothesis and conclude that salary increase doesn't lead to inflation in Nigeria.

# **\*** THE F-TEST:

This test is conducted to see if the regression model is well specified. The decision rule is to reject  $H_0$  that the model is well specified in forecasting and policy analysis if F-cal > F 0.05

F-cal(1, 29) = 2.20

$$F$$
-tab = 4.20

Hence F-cal < F-tab, we accept H<sub>0</sub>, concluding that the overall model is not significant.

# 4.3.4 ECONOMETRIC CRITERIA

Under this test is to verify whether the assumptions of OLS stated in the previous chapter are violated. The test is presented below

# 1. TEST FOR AUTOCORRELATION

To test for autocorrelation in our model, we make use of the Breusch-Godfrey Serial correlation LM test for autocorrelation. The most popular and routinely used is the Durbin-Watson the test.

# **HYPOTHESIS:**

H<sub>0</sub>: No serial autocorrelation.

H<sub>1</sub>: Serial autocorrelation.

NULL HYPOTHESIS	DECISION	IF			
No Positive	Reject	0 < d < dl			
Autocorrelation					
No Positive	No Decision	$dl \le d \le du$			
Autocorrelation					
No Negative	Reject	$4-dl < d \le 4$			
Autocorrelation					
No Negative	No Decision	$4-dl \le d \le 4-dl$			
Autocorrelation					
No Autocorrelation	Do Not Reject	du < d < 4- $du$			

Table 4.4: Decision rule for Durbin-Watson

Where;

d = Durbin Watson

dl = Lower limit Durbin Watson

du = Upper limit Durbin Watson

n = 30

K = 1 (excluding the dependent variable).

At 5% level of significance

d = 0.873303

dl = 1.352

du = 1.489

Since 0 < d < dl (that is 0 < 0.873303 < 1.352), we conclude that it falls within the rejection range. So we reject the null hypothesis and conclude that there is positive serial correlation in the residuals.

#### **3. NORMALITY TEST**

This test is carried out to check whether the error term follows a normal distribution. The normality test adopted the Jarque-Bera (JB) Test of Normality. The test is an asymptotic and it is based on the OLS residual. The test computes the skewness and kurtosis a measure of the OLS residuals and follows the chi-square distribution.

# Hypothesis

 $H_0: \sigma = 0$  (The error term does not follow a normal distribution) Against

 $H_1:\sigma=0$  (The error term does not follows a normal distribution)

At  $\alpha$ =5% with 2 degrees of freedom.

Decision Rule: Reject  $H_0$  if JB\* > JB-tab at 2df and accept  $H_0$  if otherwise.

From the result of the normality test

JB\*= 9.72, while Chi square table JB-tab=5.99147

Therefore  $JB^* > JB$ -tab at 5% level of significance, we reject  $H_o$  and conclude that the error term does not follow a normal distribution.

# 4. HETEROSCEDASTICITY

Heteroscedasticity Test: we shall employ the White's heteroscedasticity test. See Gujarati (2004). This test is basically on the variance of the error term. The test helps to ascertain whether the variance of the error term is constant.

H<sub>0</sub>: Homoscedasticity (i.e. there is no heteroscedasticity)

H<sub>1</sub>: Heteroscedasticity

# **Decision rule:**

At 2 degrees of freedom, if  $x^2$ -calculated >  $x^2$ -tabulated, reject the null hypothesis

 $X^2$ -tab = 5.99147

 $X^{2}$ -cal = 5.64

Conclusion;

Since  $X^2$ -cal <  $X^2$ tab, i.e. 5.64 < 5.99147, we accept the null hypothesis and conclude that the variance of the error term is constant.

# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATIONS.

# 5.1 SUMMARY

The study concentrated on the impact of salary increase on inflation in Nigeria, within the period of 1984 to 2009. A simple regression analysis was employed to capture the influence of salary increase on inflation and also to determine the trend effect, which is the effect of time as variable. The result reveals a negative relationship between the variables .Also the relationship between money supply and inflation is positive as well as directly related. This is because increase in money growth increases purchasing power of the people. Thus increasing aggregate demand which in turn leads to inflation.

This study showed that salary increase has no impact on inflation; salary has an insignificant impact on inflation. It also shows that inflation is not caused only by salary but rather other factors such as natural disaster; monopolistic activities of middlemen, rural-urban drift etc although not elaborately discussed in this work. This research work will give suggestions on measures that will be adopted to tackle inflation in the country generally in order to avoid what Nigerians have been passing through these years.

# 5.2 **RECOMMENDATIONS.**

For the purpose of this research work the following recommendations are made.

Firstly the government is advised to be more focused and policy consistent in formulating monetary and macro-economics policies to build investors confidence and integrity in government programmes. A sound monetary policy will be effective in a country like Nigeria to tackle the inflationary tendencies and types, more especially the demand pull and cost push inflation with are the common ones that is seen in Nigeria. This is the government should use measures like open market operation which will mop out the excess liquidity in the economy since inflation is not significantly caused by salary increases, monetary policy instruments will be manipulated to achieve the monetary target of which no inflation is among.

Secondly, in attempt to solve demand pull inflation in Nigeria, Fiscal measures should be employed and that means that even if salary of income earners are on the increase a progressive tax system should be adopted which will reduce the purchasing power of consumers.

Finally there should be a minimum standard for wage increment so that wages will not be increased at all time rather according to a fixed time period like a policy saying wages should be increased every ten year period should be enacted. This will lead to the stabilization of the economy.

# 5.2.1. Recommendation for further on this top studies.

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For the purpose of this research work the following recommendation are made for the future researchers that will work on this particular research work.

Firstly, they should consider the other factors that cause inflation and also work with it, in order to get an accurate result. These factors are rural urban drift, monopolistic activities of middle men and natural disasters.

Secondly, the use of multiple regression models should be considered in order not to have the b problem that surrounds the use of simple regression model.

# 5.3. Conclusion

This research has helped to discover that the increase in salary do not necessarily cause inflation asides that there is negative relationship between the two variables.

However if the price level cannot be relatively reduced, the measure suggested above will help stabilize the purchasing power of consumers other things being equal and inflation reduced in Nigeria.

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