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Effect of Economic Recession on Manufacturing Sector in Nigeria

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Abstract-*This study empirically analyzes the effect of economic recession on manufacturing sector in Nigeria between the period of 1981-2021. Variables used in this study were manufacturing output, inflation, and government expenditure were sourced from Central Bank of Nigeria statistical bulletin. Econometric tests were conducted to ensure that the data used do not give a spurious result. The data were analyzed using the Ordinary least squared (OLS) method because of its Best Linear Unbiased Estimators (BLUE) properties. The study found that inflation had a negative and significant effect on manufacturing output, while government expenditure was found to be positive and statistically insignificant. Based on the findings of our regression result, the researcher recommends that Effort should be made to strengthen further our stock exchange so that investor's confidence will be restored. Government should resuscitate the decayed infrastructures all over Nigeria especially power, rail road etc to reduce cost of doing business or manufacturing. Government should invest in agriculture because it promotes employment and reduces the cost of living and reduce the nation's recession.*

Keywords: economic recession, manufacturing sector, manufacturing output, inflation, and government expenditure

1.1 INTRODUCTION

Emergence of economic recession is usually triggered off by the negligence of core economic policies. The recession imposed severe pressure on the various sectors of the Nigerian economy. The manufacturing sector seems to be the hardest hit. The sector face challenges which centered on massive decline in sales, patronage, profit margin, low production, retrenchment, difficulty in obtaining dollars, increased production costs, factory closure, low power supply, abrupt increase in tariff as well as losses on foreign exchange loans (Ikeke, 2017).

Adeniji, 2008) discovered that firms could not have access to naria for importation of raw materials due to scarcity of foreign exchange there is an influx of dollars per month fell beneath ₦1billion from ₦3.2billion as a result of drop of petroleum prices. Nigeria contested with dearth of dollar in financing her import invoice which amounts to₦4billion monthly.

Some firms that were fortunate to pay for the dollars receive them after 3 to 4months. These made a few of the manufacturing firms' capability consumption to fall around 35% (Ikeke, 2017).One of the effects of economic recession is high rate of unemployment which mounts pressure on the management accountants' role of staffing and effective management of human resources. Edogbanya, (2013) noted that the heaving result of the recession had grown to be unbearable for firms leading to huge loss of jobs. Noko (2016) stated that over 20,000 employees working in manufacturing companies lost their jobs due to the recession. In2016 and 2017 it was recorded that 196 manufacturing firms closed their factories due to unfavourable business environment for the manufacturers created by the recession (Onuoha & Nwaiwu, 2016). This increased cost of production, led to low-capacity utilization and also made our industries increasingly less competitive in the global economy (Lyman, 2014).

Economic recession created harsh economic climate in Nigeria, which is evidenced by high energy cost, high bank interest rate (22%) and high naira exchange to dollar (N360 to $US) etc. Some of the multinational companies like Dunlop plc and Michelin plc relocated to neighboring countries because of harsh economic climate. The horrendous nosedive in stock market prices reduced level of investment in stocking manufacturing industries. Many of the manufacturing industries were delisted in the stock exchange because of poor performance and closure and investors no longer acquire their shares. The issue of expansion was also made difficult in manufacturing industries by low stock prices and delisting of industries at the stock exchange. There were massive labour turnover (Layoffs) as a result of low capacity utilization and factory closure.

Manufacturing industry was the hardest hit with about 80% of its factory closed down. Most industries were producing below 50% capacity utilization. The dwindling state of the economy made naira rate of exchange to US dollar very unstable and tremendously high. It posed difficulty on importation of spare parts, equipments and raw material for manufacturing industries. The finance minister during chief Obasanjo Civilian administration, Usman (2013) confirmed in her review of progress made by economic reform to turn around the economy, that Nigeria was in recession at the advent of their administration in 1999.

The pressure posed by the recession kept firms in continuous struggle to maintain and retain their customers. The inflation affected customers 'purchasing power resulting in consistent drop in sales volume. Some customers seem to be quality conscious while some seem to be price conscious and in all, firms were in continuous struggle to maintain their customers. Firms fought to survive, they engaged in various strategies and lots of below the line marketing push to ensure that their competitors did not snatch their customers.

The lingering effect of the various years of recession on the economy of Nigeria to present date has negative impact on our manufacturing industries. The profligate consumption pattern in the spendthrift years of early eighties, while oil revenue was fast declining resulted in huge deferred payments on trade transactions; all these have cumulative effect on the economy and manufacturing sector (Agugua, 2002).Previous administrations in Nigeria have tried to introduce and implement different social, economic and political reforms. Such reform programmers could neither be described as success nor failure because they were abandoned halfway, calling into question the real intentions of the government of the day that might have introduced them. Political stability in governance is an important requirement for conducive business environment. Frequent changes in policies and programmers as a result of intervention in governance renders business plans and projections useless. And no foreign investors will like to do business in a Chaotic and unstable environment.

The problem of economic recession in manufacturing industries cannot be solved unless the Nigerian factors responsible for continuing existence of this malady is unraveled and salvaged with proper economic reform programmed. According to Eze (2009) Corruption and embezzlement of public fund is blamed for the stunted economic growth which have stymied all efforts at national development and industrial expansion. The stunted economic growth has serious negative impact on the manufacturing industries. The manufacturing industries are affected when it bothers on reserve to service imports, from where they obtained foreign exchange to import their spare parts, machineries and raw materials. The stunted economy has resulted to high interest rate, to unstable naira to dollar exchange rate and these affects manufacturing industries that rely on bank loan to finance their business and exchange to dollar for procurement of their spare parts, machinery etc. Our leaders have deliberately made wrong economic and development decisions leading to colossal loss in financial resources, which most often were borrowed. Loans were accessed from foreign banks meant for projects at home but the funds so borrowed never made it into Nigeria shores (Eze, 2009).

1.2 Objectives of the Study

The following are the objectives of the study

The broad objectives of this study is to evaluate the effect of economic recession on manufacturing sector in Nigeria

i. To determine the extent to which inflation rate has affect the manufacturing sector output in Nigeria

ii. To determine the effect of government spending on manufacturing sector output in Nigeria.

REVIEW OF RELATED LITERATURE

2.1 Theoretical framework

2.1.1 The Contingency Theory

Robert and Schmidt (1957) developed a Contingency theory, as an outgrowth of systems design. Scott adds that in contingency theory "the best way to organize depends on the nature of the environment to which the organization relates". The environment has a far-reaching impact on organizations. The growth and profitability of any organization depends critically on the environment in which it exists. Any environmental change has an impact on the organization in several different ways.

Ile (1999) asserts that contingency approach to management is of the view that the management technique that best contributes to the attainment of organizational goals might vary in different types of situations or circumstances. He goes further to say that modern theories of organization and management was developed largely since the 1917's by the contribution made by Alfred, Korzybaki, Mary Parker-Follent, Chester, Barnard and Norbert Wiener etc. Contingency theory is guided by the general orienting hypothesis that organizations whose internal features best match the demands of their external environments will achieve the best adaptation (Scott, Lawrence and Lorch, 1967). The more homogenous and stable the environment, the more formalized and hierarchical the form. Their view is ecological - those organizations that can best adapt to the environment will survive. The main underlying contingency are: Organizations are open systems that need careful management to satisfy and balance internal needs and to adapt to environmental circumstances. There is no one best way of organizing. The appropriate form depends on the environment one is dealing with. Different types of organizations are needed in different types of environments.

Contingency theory is an outgrowth of systems design. Scott adds that in contingency theory "the best way to organize depends on the nature of the environment to which the organization relates". The environment has a far-reaching impact on organizations. The growth and profitability of any organization depends critically on the environment in which it exists. Any environmental change has an impact on the organization in several different ways.

2.2 Extant literature

2.2.1 Economic recession and The manufacturing Sector in Nigeria

Economic recession basically leads to the decline of the manufacturing sector, unemployment, reduced earnings, investments and savings which is the posit of the theory of economic shocks. When there is a shock, it is more or less a change in the economic performance, which might be temporary. However, the business cycle theories stressed that if there is insufficient consumption and unstable investment, it can bring about fluctuations in output and unemployment.(Keynes 1993) stressed that in a depressed economy where savings and investment are determined by other factors other than the interest rates, a way-out is to stimulate demand as this could be achieved through government intervention. The instantaneous caustic effect of the economic meltdown on several organizational systems worldwide is the inability to maintain the current productive capacity owing to inadequate finance. The global economic crisis is expected to lead to a dramatic increase in the number of people joining the ranks of the unemployed, the working poor and those in vulnerable unemployment. Based on new developments in the labour market and depending on the timelessness and effectiveness of recovery efforts, the global unemployment in 2009 increased over that of 2007's by a range of 18 million to30million workers, and this situation will continue to deteriorate (ILO 2009). The public services system could also wind up if it gets to the extreme leading to mass retrenchment of public servants and the consequent graduation of large number of the population to a state of poverty. For example, it was recorded that the global economic meltdown pushed 90million more people into extreme poverty thus prompting the 2009 L'Aquila G8 summit to hail the Food Security Initiative as a major commitment to root out hunger and poverty (Nwanze 2009).The reverberating effects of the meltdown have been felt in the banking industry, the capital market and other vital sectors as exemplified by the collapse in investment while rescue packages are been drawn up and interstates cuts across the world.

As the stimulus programs are increasing public sector debt, more countries are now turning to public private partnership (PPP) to harness private sector debt and use the private sector to carryout services previously run by the public sector. Economists have projected that as the world moves out recession, we will see a further expansion of public private partnership (PPP) across the world. But some of the noted impacts of the crisis include; lower economic growth, translating into a higher poverty index, increased crime rate, weaker health systems, poor education systems and difficulties in meeting the targets of the Millennium Development Goals (MDG's) (Fabunmmi and Aiteonokhuoya 2009).Several opinions were made in relation to the possible effect that the global financial meltdown could have on the Nigerian economy, however, few of these studies explore the impact of the crisis on the real sector of the economy. This is because the financial meltdown affects countries differently and the views of the individuals appraising the meltdown will be through different approaches too. A recession is associated with high unemployment, slowing gross domestic product, and high inflation. Economic recession is a period of general economic decline and is typically accompanied by a drop in the stock market, an increase in unemployment, and a decline in the housing market. Generally, a recession is less severe than a depression. The blame for a recession generally falls on the federal leadership, often either the president himself, the head of the Federal Reserve, or the entire administration, Sultan (2017).

There is no certified definition of recession, but there is general understanding that the term refers to a period of decline in economic activity. Very short periods of decline are not considered recessions. The NBER defines a recession more broadly as „a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP growth, real personal income, employment, industrial production, and wholesale-retail sales. A recession begins when the economy reaches a peak of activity and ends when the economy reaches its trough." (IMF 2019).

From the above definition, Emmanuel (2016), judges that, “Nigeria is experiencing economic recession currently, since her first and second quarters growth in 2016 are -0.36% and -1.5%”. Benjamin (2017), also sees recession as a phase of economic cycle which occurs after two consecutive quarters of negative growth. This exhibits low output and investment, abnormal increases nun employment due to massive retrenchment, falls in the avail ability of credit facilities, fluctuation in exchange market (instability in exchange rate), illiquidity and downsizing and dismiss as well as reduced amount of trade and commerce. From the above, economic recession can simply mean economic condense.

2.2.2 Manufacturing sector and government expenditure

In recent time, some manufacturing industries in Nigeria have been characterized by declining productivity rate, by extension employment generation, which was caused largely by inadequate electricity supply, smuggling of foreign products into the country, trade liberisation, globalisation, high exchange rate, and low government expenditure. Therefore, the slow performance of manufacturing sector in Nigeria is mainly due to massive importation of finished goods and inadequate financial support, which has resulted in the reduction in capacity utilization and input of the manufacturing sector in the economy (Tomola, Adebisi and Olawale, 2015).

Furthermore, in Nigeria, the level of growth in manufacturing sector has been affected negatively because of high interest rate on lending and this high lending rate is responsible for high cost of production in country’s manufacturing sector (Adebiyi and Babatope, 2014). Hence, Okafor (2017) observed that the level of Nigerian manufacturing industries’ performance will continue to decline because of low implementation of government budget and difficulties in assessing raw materials and stiff competition with foreign firms.

From 1982 to 1986, Nigeria’s value added in manufacturing fell considerably partly because of inefficient resources allocation caused by distorted prices and prohibition of importation. Between 1986 to 1988, the World Bank induced Structural Adjustment Program (SAP) in the economy’s economy contributed to larger increase in manufacturing industry contribution to GDP, which grew 8 percent in 1988. The deregulation of foreign exchange market was also reckoned with and made manufacturing industries more competitive by increasing input costs (CBN, 2010). Looking at the manufacturing sector share in the GDP in recent years (1990-2010), it has not been relatively stable. In 1990, it was about 5.5% while it drops to 2.22% in 2010.

The provision of social and physical infrastructure through public investment and expenditure on some goods and services theoretical can directly improve productivity in the private sector through more efficient allocation of resources due to the special characteristics of social goods (spill over and extern laities, non excludability) they will be provided at all or where they are produced the output will be inadequate and outrageously expensive if left in the hand of private individuals. Meanulule, Ojo and Okauroumu (1992) observed the basis the form of intervention of government in the economy, and the general effect of government activities as three important issues on government fiscal policy and economic growth.

Kellick (2009) also supported that it is the responsibility of the state through expenditure to provide the desirable services which the price mechanism cannot provide or produce at all or would only do so at high cost and with smaller social bereft. The comportment of expenditure recurrent expenditure is government expenditure made regularly from year to fear some examples includes personnel cost overhead cost utility services telephones, furniture and equipment . On the other hand capital expenditures are spend on new construction, land and balding acquisition, fixed assets which have expected working life more than one year.

According to Gbosi (2002) asserted an deter native characterization of expenditure. This divides total expenditure into transfer and non- transfer expenditure Generally, there is certain expenditure which does not result in corresponding of the transfer of real resources to the government, the payment on debt unemployment benefit for example of this expenditure. Here the governments usually transfer additional financial resources to some sections of the society. On the other hand non transfer payment may include the actual expenditure incurred by the government for the use of goods and services, to a large extent, the use of resources received in returns for non- transfer payment may also be for consumption or investment purpose. To this effect, one can say expenditure on defense, education energy, road, and infrastructure, and in other words, they are usually referred to as real expenditure, with respect to public expenditure categorization on component

2.3 Empirical Studies

Agri, et al., (2017) examined the impact of economic recession on macroeconomic stability and sustainable development in Nigeria from 1980 – 2016. The Ordinary Least Square (OLS) method was adopted for data analysis. The results show negative impact of these variables on economic growth and sustainable development. The recession impacts on socioeconomic and political lives of the Nigerian people, and should be studied to find the root causes and proffer solutions for sustainable economic development. This study perceives economic recession as a symptom of deeper structural problems inherent in the Nigerian economy, and overdependence on external modern capitalist societies.

Oyewole and Olaniyi (2017) examined the business educators' perception of the impact of economic recession on Nigeria's socio economic lives. The study adopted descriptive survey design. A five point rating scale items structured questionnaire was used for data collection. The research findings showed that the economic recession highly affected Nigeria's socio-economic lives.

Shido-Ikwu (2017) analysed the main reasons for the emergence of the current economic recession in Nigeria. The study gives a theoretical exposition of how government policies can potentially curb the recession and enhance better economic well-being of the Nigerian populace. The research findings indicate that the main causes for the emergence of the economic recession in Nigeria can be grouped under three main factors: legacy factors, policy factors and political/security factors.

Awujola and Ejezie (2015) examined the impact of Global economic recession in the context of the political economy approach. The study used the global economic recession as a variable between Micro and Macro factors in fiscal and monetary policies of the elitist economic managers and state government in the international economic system. It portrayed global economic recession as demise of political and economic capability and ineffectiveness of capitalism up surge of free markets and greed of those who failed to anticipate the consequences of their actions. It affirms that the political and economic implications of Global economic recession can be ameliorated through concerted efforts between states in the international economic system and national governments, under a broad regulatory framework devoid of greed to share and sustain economic growth in the beleaguered financial sector.

Chukwu, Liman, Enudu and Ehiaghe (2015) empirically review on the effect of economic recession in textile manufacturing industries in Nigeria. This research study investigated the effects of economic recession in textile manufacturing industries in Nigeria. Economic recession has disastrous ripple effects on manufacturing industries. The data collected from questionnaire instrument were also analysed using percentages. The research finding show that the effect of economic recession in manufacturing industries are low capacity utilization and factory closure, horrendous nosedive in stock market prices, delisting of share at the stock exchange, fall in commodity prices and low foreign direct investments. The variables that were hypothetically tested as the effect of economic recession has significant effect on Textile industries in Nigeria

Sangosanya (2011) used panel regression analysis model and Gibrat's law of proportionate effect in investigating firm's growth dynamics in Nigerian manufacturing industry. The study observed that the manufacturing firms finance mix, utilization of assets to generate more sales, abundance of funds reserve and government policies are significant determinants of manufacturing industry growth in Nigeria. This result means that the manufacturing sector financial performance and long-term sources of fund option determines the growth of manufacturing sector in Nigeria.

Eneji, Dimis and Umejiaku (2017) carried out a review on the impact of economic recession on macroeconomic stability and sustainable development in Nigeria. The Nigerian economy has been hit hard by a recession, caused by excessive imports, plunging oil revenue and sharply low investment inflows. This study is a wide analytical focus on the impact of the economic recession on Nigeria in the socio-economic context. The study uses multiple regression analysis of time series data on selected macroeconomic variables in two econometric models. The results show negative impact of these variables on economic growth and sustainable development. The recession impacts on socioeconomic and political lives in Nigeria and should be studied to find the root causes and proffer solutions for sustainable economic development.

This study perceives the economic recession as a symptom of deeper structural problems inherent in the Nigerian economy, and overdependence on external modern capitalist societies. It recommends that Nigeria needs positive economic change that is caused by structural and fiscal reforms. Nigeria should strive to diversify the economy, be self-reliance and corruption- free, eat what she produces, and mostly use what she makes. The paper concludes that Nigeria can get out of the recession.

METHODOLOGY

3.1. Theoretical framework

Neoclassical models by Solow (1956), the models originates from trade while the endogenous growth model shows how countries can work with the process of globalization to find complementary activities (e.g education and retraining) and regulatory frameworks which help them to survive and collect rent from multinational corporations within their political and economic boundaries. Romer, stressed that endogenous growth does not just happen, but there are four basic pre-conditions for growth which are; capital (measured in units of consumption goods), labour (skills available from a healthy human body), human capital (activities such as formal education and on the job training which is person specific) and an index of the level of technology. The problem here is that the empirical implications of these models are less clear as technological progress and the factor influencing it are difficult to measure.

The normal methodology of these growth studies is to begin with the neoclassical production function of the form:

$$Y_t = A_t \, f(K_t, L_t) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where;

Y_t is Output

A_t is Technological change

K_t is Capital stock

L_t is Labour force

The growth accounting approach has been a popular means of organizing data to describe economic growth. The major task is to measure the growth contributions of factor inputs. One prevailing thought in economics is that economic recession has a drastic effect on manufacturing sector output in Nigeria (Uwatt 2004)

$$Y_t = f[A(t)L(t)K(t)] \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

$$Y_t = [1-akK(t)] \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

The knowledge function (a) in expression (3) doesn't have constant returns to scale as knowledge is a public good and its possession of one unit does not prevent others from having it. However, interactions among researchers would imply increasing returns to labour and capital.

3.2 Model Specification

An economic model is the representation of the basic features of an economic phenomenon. In order to identify the nature of relationship between economic recession and manufacturing sector, it is imperative to establish a model or paradigm for analysis, whereby the parameter estimates of money supply can be determined. The model can demonstrated as

MOP= f(ER, GEX,)

where

MOP = Manufacturing output

ER = Economic recession Proxy by inflation rate

GEX = Government expenditure

The above equation can be put in an econometric form as;

$MOP = b_0 + b_1 INF + b_2 GEX + \mu$

Where;

Where; Bo is the constant intercept

β_1=coefficient of parameter ER

β_2= coefficient of parameter GEX

μ = the stochastic error term or disturbance variable.

3.3 Sources of Data and Soft Ware

The study makes use of secondary data, the time series data on economic recession, government expenditure and manufacturing output which was sourced from the Central Bank of Nigeria statistical bulletin 2018. The software used in running this regression is E-view version 9.1.

PRESENTAION AND ANALYSIS OF DATA

4.1 Testing for Unit Root

Stationary of variables means that the mean and standard deviations does not change with time. This is used to investigate whether the mean value and variance of the stochastic process are constant over time. The test is carried out on each variable separately and if the Augmented Dickey Fuller (ADF) test exceed the critical values in any percent (1, 5 or 10%) then the variables in question is stationary at the chosen level of significant and vice versa. In other not to obtain spurious result the variables were first tested for stationary by employing the Augmented Dickey Fuller test (ADF).

Table 4. Unit Root Result

Variable	ADF	Integration	Significance
MOP	-6.722398	1 (1)	1 %
INF	-6.620191	1 (1)	1 %
GEX	-6.192023	1 (1)	1 %

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Source: Author's computation

Using the augmented Dickey-Fuller tests, the results as presented in Table 1 has shown that all the variables are stationary at the at first and second difference. The result indicates that the variables are integrated of order one I(1). Generally, a co-integration test shall carry out to confirm and determine the existence of a long-run relationship among the variables.

4.2 Testing for Co-integration

Co-integration implies that variables exhibit a similar type of behavior in the long-run. Hence, it ascertains whether the variables have a sustainable long-run relationship or are stable over time, because of their different order of integration. The test is done to avoid having a spurious regression result. The common methods used for co-integration are Johansen procedure. A lack of co-integration suggests that such variables have no- long – run equilibrium relationship. The table 4.2 below gives the summary of co-integration result for the model.

Table 4.2 Co-integration Result

Unrestricted Co-integration Rank Test (TRACE)

Hypothesized	Max- Eigen	0.05	Trace	0.05
No of CE(s)	Statistic	Critical value	Statistic	Critical value
None*	29.48635	22.29962	44.80450	35.19275
At most 1	10.77734	15.89210	15.31815	20.26184
At most 2	4.540812	9.164546	4.540812	9.164546

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Source: Author's Computation

Max- Eigen and Trace test value indicates 1 co-integrating eqn (s) at the 0.05 level denotes rejection of the hypothesis at the 0.05 level MacKinnon – Haug – Michelis (1999) – values.

From table 4.2, it is observed that both trace test statistic and the max- Eigen value test indicates two co-integrating equation at 5% level of significance. The Johansen co integration test reveals that there is a long-run relationship among the dependent and independent variables. The conclusion drawn from the result is that there exists a unique long-run relationship between the variables.

4.3 Presentation of the Regression Result

The time series properties of the variables used the logged and lagged values of the variables. The full part of our regression result is attached as an appendix to the study. However, diagnostic test or some key variables that needs to be explained is on the table below.

Table 4.3 Regression Result for the Model

Variable	Coefficient	Std. Error	t- statistics	Prob
C	13.01342	0.068480	190.0321	0.0000
INF	-0.003824	0.017628	-2.216908	0.0035
LGEX	0.001032	0.017554	0.058810	0.8296
ECM(-1)	1.014586	0.046865	2.164894	0.0045

Source: Author's computation

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R- Squared	0.937637
Adjusted R- squared	0.931968
F – Statistics	165.3876
Prob (F- statistics)	0.000000
Durbin- Watson stat	1.992372

4.4 Interpretation of the Result

Coefficient of determination, this is also called the goodness of fit. This explains the percentages, proportion or total amount of variations in the dependent variables as a result of changes in the independent variables included in the model. This will portray the usefulness significance of the regression. The closer its values are to 1 the better the fit since it is usually 0-1. From our regression result, R^2 is 0.93%. This implies that the independent variables can explain about 93% of the variable in the dependent variable, leaving the remaining 7% which would be accounted for by other variable outside the model.

The adjusted R^2 is 93% meaning that even with an adjustment in the independent variables, they can still account for about 93% of the changes in the dependent variables.

The F- statistics, this is use to test for the overall significant of the model. From the result in table 4.3 above, our computed value of F- statistics is 165.3876, while the probability is 0.000000. Since the probability of the F- statistics in the computed output is less than the desired 0.05 level of significance, we accept and state that there is a significant relationship between the variable of the estimate and that of the dependent variable

The a' priori criteria which is determined by the existing economic theories and indicates the signs and magnitude of the economic parameter under regression.

in table 4.3 above, we find out that inflation rate has a negative sign given its value as -0.003824 this implies that a unit decrease in recession increases the manufacturing output by 3%, this conform to our a' priori expectation. Government expenditure has a positive sign given its value as 0.201032, this implies that a unit increase in government expenditure increases manufacturing output by 20%, this suggest that it conform to theoretical expectation.

T- Statistics, this is carried out to know the significant of individual explanatory variables in the model. That is to find out the significant influence of explanatory variables on the dependent variables at chosen level of significant. It is used to test or reject the hypotheses of the study from our regression model, it was discovered that economic recession is statistically significant because of high t-statistics and low probability value. Government expenditure has an insignificant impact (0.058810) this implies it has not contributed to manufacturing output in Nigeria, respectively.

Test for autocorrelation, this is to test whether errors corresponding to difference observation are uncorrelated. It checks the randomness of the residuals. If the value of the Durbin-Watson from the regression result is close to 2 no autocorrelation in that regression result but if it deviates significantly then there is autocorrelation. The Durbin-Watson statistic

(D.W) of 1.9 reveals no autocorrelation in the models. Hence, the result is good for econometric analysis.
The coefficient of the error correction term carries the correct sign and it is statistically significant at 5 per cent level with the speed of convergence to equilibrium of 51 per cent.

4.5 Hypothesis Testing

Ho: Inflation rate has no significant effect on manufacturing sector in Nigeria

Hi: Inflation rate has significant effect on the manufacturing sector in Nigeria

Meanwhile, drawing inference from table 4.3 above we find out that the computed value of T- test for economic recession is -2.216908 While it's probability is 0.0035 since it's probability is lesser than 0.05% level of significance, we reject the null hypotheses (H0) and accept the alternative hypothesis which says that inflation rate has significant negative effect on manufacturing sector in Nigeria

Hypotheses Two

Ho: Government expenditure has no significant effect on manufacturing sector in Nigeria

Hi: Government expenditure has significant effect on manufacturing sector in Nigeria

From table 4.3 above we find out that the computed value of T- test for Government expenditure is 0.058810, while it's probability is 0.8296 since it's probability is greater than 0.05% level of significance, we accept the alternative (Hi) hypothesis and reject the null hypothesis which says government expenditure has insignificant effect on manufacturing sector in Nigeria

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

In conclusion, the effect of economic recession on the manufacturing sector has high negative effects on engagement levels, and this is something every manufacturing business should be concerned with. While engaged, employees will not make the recession disappear; they will certainly help companies get through it with far more success than would otherwise be possible. To overcome this crisis, human resource practitioners need to be more strategic in their engagement responsibilities and need to support their engaged employees. This encourages acceptance and positive attitude from organizations and especially from the government since it will involve all stakeholders to attain the goals of effective human resources management. Thus, government involvement is essential in combating the problems of global economic recession and declining industrial growth in Nigeria in general. Every organization has the right to protect its interest and thus create modalities for true survival in a harsh economic condition.

5.2 Recommendation

The inexplicable credit squeeze by banks which puts the government in competition for available fund against genuine would-be investors should be discouraged and stopped.
Effort should be made to strengthen further our stock exchange so that investor's confidence will be restored.
Government should resuscitate the decayed infrastructures all over Nigeria especially power, railroad etc to reduce cost of doing business or manufacturing.
Government should invest in agriculture because it promotes employment and reduces the cost of living and reduce the nation's recession.

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