

Business and Technology: Tools for Economic Recovery and National Development in Nigeria

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Abstract: The study examined business and technology: tools for economic recovery and national development in Nigeria, spanning from 1984 to 2016. The study adopted Ordinary Least Square (OLS) Linear Specification model. Using unit root test, the study shows that business and technology has significantly contributed to economic recovery and national development in Nigeria, within the period under study. The work recommends among others that public policy should be designed to encourage success in managing business innovation than in adopting the right capacity decisions from already known technological possibilities. technological change is a critical factor for growth that stems from Research and Development (R&D) and from innovative activities. Managing innovations better than one's competitors is one of the most important objectives of any modern economy that wants to grow, survive and thrive. Government should improve active exchange rate policy that avoids over-valuation or excessive depreciation of the Naira and ensures competitiveness of tradable goods, relative price stability or low inflation as well as avoiding inconsistent fiscal policies should be designed.

Keywords: Business, Technology, Economic Recovery, National Development

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I. INTRODUCTION

1.1 Background to the Study

Predominantly, in our world today, nothing can be done without an exchange of some value for value which involves money, ideas, product and technology. As a result of this there is direct effect on the economy of any nation, either positively or negatively. Origin of business transactions can be traced back to the need for exchange, which evolved from the barter system to the money system. Business in Nigeria, however, became popular with the advent of the colonial rule that brought in their wares and made Nigerians their middle men (Nicks, 2008). By this Nigerians understood the need for business both domestically and internationally.

Business and technology has been an area of concern to policy makers and economists. Its importance lies on the ability to obtain goods which cannot be produced in the country or which can only be produced at greater expenses. Business enables a nation to sell its domestically produced goods to other countries of the world. The performance of a given economy in terms of growth rates of output and per capita income has not only been based on the domestic production and consumption activities but also on international transaction of goods and services. The classical and neo-classical economists attached so much importance to business in a country's development that they regarded it as an engine of growth (Jhingan, 2006).

Business and technology is recognised as a vital catalyst for economic development. For developing countries like Nigeria, the contribution of business and technology to overall economic development is immense owing largely to the obvious fact that most of the essential elements for development such as, capital goods, raw materials and technical know-how, are mostly imported because of inadequate domestic supply. However, it is important to note that internal business complements external business since domestically produced goods are collected for export, while imported goods are distributed within the country, sometimes into remote areas. It also facilitates internal specialization and the division of labour between the various firms and geographical areas of the country. Therefore, the higher the level of internal business the greater the level of specialization. This raises the level of efficiency and productivity of the various economic units (Anyanwuocha, 1993).

Economic recovery and national development is measured by the Gross Domestic Product (GDP) in Nigeria. GDP is a total market value of a country's output of goods and services, which are exchanged for money or traded in a market system over certain periods. This indicates that business is essential for economic

recovery and national development. The Gross Domestic Product (GDP) of Nigeria is \$246 billion in 2016. The economy has overdependence on the capital intensive oil sector, which provides 20 per cent of GDP, 95 per cent of foreign exchange earnings, and about 65 per cent of government revenue for 2016.

1.2 Statement of Problem

Prior to the discovery of crude oil in commercial quantity in Nigeria, the country depended largely on the proceeds of agriculture primary product for the generation of foreign exchange. The country therefore constituted one major agrarian country in Africa. By the mid-1960s, production and export of crude oil had become important in Nigeria's export structure, ironically, the ascendancy of petroleum production and export was accompanied by a simultaneous decline of agricultural products in the nation's economic activities. Indeed, by the end of the 1970's, crude oil accounted for as much as 90 per cent of the country's export business. Nigeria's non-oil production structure is still basically of the import-substitution variety, being largely dependent on foreign technology, industrial machinery and raw materials and negligible exports of finished products. It can therefore be said that the pattern of Nigeria's business with the rest of the world has not undergone a structural change since the 1940s. The country had been producing and trading consistently in natural resource products (Akano, 1995). The most important implication is that there is adverse effect of making the Nigeria's export sector dependent on external factors, outside the control of Nigeria economy.

This is hypothesized to happen for many different reasons, including a decline in the competitiveness of other economic sectors (caused by appreciation of the real exchange rate as resource revenues enter an economy), volatility of revenues from the natural resource sector due to exposure to global commodity market swings, government mismanagement of resources, or weak, ineffectual, unstable or corrupt institutions (possibly due to the easily diverted actual or anticipated revenue stream from extractive activities) (Auty, 1993).

1.3 Objectives of the Study

The main objective of this study is to examine the role of business and technology as tools for economic recovery and national development in Nigeria. Specifically the study aims to:

1. Evaluate the impact of business on the level of economic recovery and national development in Nigeria.
2. Examine the impact of technology on economic recovery and national development in Nigeria.

1.4 Research Questions

1. What is the impact of business on the level of economic recovery and national development in Nigeria.
2. What is the impact of technology on economic recovery and national development in Nigeria.

1.5 Research Hypotheses

1. Business has a significant impact on the level of economic recovery and national development in Nigeria.
2. Technological output has a positive and significant impact on economic recovery and national development in Nigeria

1.6 Justification of the Study

Previous efforts made to examine, the economic impact of business and technology has been limited to the area of business policy implementations. The significance of this study is numerous, though the primary objective is on business and technology as tools for economic recovery and national development in Nigeria. Though, series of effort have been made both theoretically and empirically to examine the impact of business on economic recovery and national development, so much effort has not been made at identifying the role of business and technology as tools for economic recovery and national development in Nigeria. Technology is a major route for Nigeria to enjoy the various economic benefits attached to business. And this research work intends to provide insight into this area.

1.7 Scope of the Study

The research work is confined to Nigerian economy. Therefore, data that were considered are those relating to Nigeria economy on business and technology as tools for economic recovery and national development in Nigeria. The study will basically cover a period of 33 years (1984-2016). This study is limited to business and technology as tools for economic recovery and national development. Ordinary Least Square (OLS) method is devised for the data analysis. The dependent variable in the study is economic recovery and national development which is measured with Gross Domestic Product (GDP) while the explanatory (independent) variables are net export, degree of openness, technological output, and business policy changes.

II. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

Business has been and is today an economic force that has spurred commerce, promoted technology and growth, spread cultural patterns, stimulate exploration and colonization, and frequently fanned the flames of war. The history of business has gone hand in hand with the development of civilizations. From ancient times, business brought about the exchange of products and raw materials between one land or nation and another. Although such business was often conducted in barter form and was of small volume by today's standard, this interchange of products was important in economic and historic development.

Business in its early beginnings was necessary, not just because it provided one society with products such as cowries from West Africa to other areas, business also led to cultural interchange, thus trading not only on product, but also on lifestyles, customs and technology. In addition business prompted the development of monetary system of record keeping and accounting, and of an entire vocation of commerce. One can state that the economic and political development of the entire western world was spurred and enhanced by business.

Columbus set out, as you can recall, not to settle in a new nation, but to discover a new business route of the Orient. The interest upon his return to Europe centre not on his accounts of forest and soil, but on the new products available such as tobacco, corn, cowries etc. As international business progressed and technology developed, these explorations were to turn up another area of business, still important today. This was the import of raw materials by a nation and the re-export of finished and manufactured products. As a result, not only living standards advanced, but national incomes were also increased.

Thus it is an erroneous view that business has operated as a mechanism of international inequality and has restated the development of LDCs. Rather, business has acted as an engine of growth for them. Over the past century and a half, the growth of business has continued to open up new opportunities of specialisation and development for the countries engaged in it. These opportunities were particularly in the primary producing countries overseas that were still in the process of settlement, since business enabled them to bring into use unexploited natural resources and freed them from the limitations of their own domestic markets' (Jhingan, 2006).

2.2 Business, Technology and Economic Recovery and National Development

Free business is considered by some economists as most relevant for economic development. According to Haberler (1961) —free business is economically advantageous because it maximizes the output of social products. However, a counter argument holds that although the derivable benefits of free business are laudable, they are to some extent hypothetical, effective only under the conditions of full employment, full allocation of resources and free competition in the economy. For instance, Singh (1985) argued that —the applicability of free business is limited in the case of a developing economy, where a vast segment of the productive resources are still unexploited, with acute problem of unemployment. A free business regime will further compound these problems by weakening the domestic industries, especially those that lack sufficient competitive powers.

Earlier opponents of free business such as Harry G. Johnson (1965), and Ellsworth (1969) argued in favour of business intervention owing to the belief that —such interventions would help rectify the defects of free business and thus provide the opportunity for developing economies to fully derive the benefits of business. Interestingly, these arguments do not in any way negate the fact that business plays a vital role in the economic development of any country. Perhaps the conclusion one could draw from the two schools of thought is that for a developing economy, business intervention policy is preferable. When the economy has attained full capacity, then the idea of adopting free business option could be considered. However, it is necessary to point out that in today's world the concept of free business is utopian. Business intervention is practiced in every country, except that the degree of intervention varies from country to country.

Official intervention in business processes is made possible through the implementation of business policies. For developing countries that have adopted National Development Plan as a development strategy, business policies are the instruments used for effective channelling of resources to appropriate sectors of the economy towards meeting plan objectives. According to Singh (1985), this group of countries —have high income elasticity of demand for imports. The scarce foreign exchange available to them has to be judiciously utilised in line with deliberate business policies and in accordance with development priorities. In other words, business policies are essential for ensuring optimal allocation of scarce resources. It is very clear from the foregoing that there is an integrated relationship between business and economic development. The total output of an economy is mirrored by the Gross National Product (GDP). According to Peter J. Lloyd (1968), —the national income is the result and the most common summary measure of a nation's economic performance. It is the reflection of the prevailing pattern of production and business. The ratio of exports of goods and services to domestic product shows the share of output produced in the export sector, and the ratio of imports of goods and services to domestic product is an indication of the proportion of income expended on imports. The ratio of the

sum of exports plus imports of goods and services to domestic product is the summary measure of the extent of a country's involvement in business. The productivity of the entire economy is the index of total economic output to the value of total input. This was derived from the definition of agricultural productivity by Alabi (1987). The external business productivity of the economy will then be the index of total economic output to the value of total business. Productivity can be increased by either a higher output per unit of resources or producing the same level of output with a reduced amount of input.

2.3 Theoretical Framework

The framework for business is based on the Heckscher Ohlin theory. It is the classical theory of business formulated by Heckscher Ohlin. Its best exposition is found in the works of (Taussig, and Haberler, 1988). Heckscher Ohlin in his famous book *Interregional and international business* (1933) criticized the classical theory of international trade and formulated the general Equilibrium or factor proportions theory of international trade. It is also known as the Modern Theory of International Trade or the Heckscher-Ohlin's (H-O) theory. In fact, it was Eli Heckscher, Ohlin's teacher, who first propounded the idea in 1919 that business results from differences in factor endowment in different countries, and Ohlin carried it forward to build the modern theory of business.

The H-O theory states that the main determinant of the pattern of production, specialization and business among regions is the relative availability of factor supplies. Regions or countries have different factor endowments and factors supplies —some countries have much capital, others have more labour. The theory now says that countries that are rich in capital will export capital-intensive goods and countries that have much labour will export labour-intensive goods (Ohlin, 1933).

To Ohlin, the immediate cause of business always is that some commodities can be bought more cheaply from other regions, whereas in the same region their production is possible at high price. Thus the main cause of business between regions is the difference in prices of commodities. The model is more realistic than the classical theory, in that, the former leads to complete specialization in the production of one commodity by one country and of the other commodity by the second country when they enter into business with each other.

However, the principal objective of any theory of business is to explain the cause of business. Two other objectives of the theory of international trade are to explain the composition and volume of external business. A theory, which explains these three issues: cause, composition (structure) and volume of business is conventionally said to be a —complete" theory of international trade. The two complete theories of international trade in existence are the Classical (also called Ricardian) theory and neo-classical theory.

2.4 Review of Empirical Literature

Ogbo and Agu, (2012) analyzed the contributions of business in the economic development through SME development in Nigeria using descriptive statistics. The study found that SMEs have played and would continue to play significant roles in the growth, development and industrialization of many economies of the world. In the case of Nigeria, SMEs have performed below expectation due to a combination of problems which ranges from attitude and habits of SMEs themselves through environmental related factors, instability of governments and frequent government policy changes etc. the study recommended that promoters of SMEs should thus ensure that entrepreneurs possess managerial capacity and acumen before pursuing financial resources for the development of their respective enterprise.

Akingunola, (2011) assessed specific financing options available to SMEs in Nigeria and contribution in economic recovery and national development via investment level. The Spearman's Rho correlation test was employed to determine the relationship between SMEs financing and investment level. The analysis reports a significant Rho value of 0.643 at 10%. This indicated that there is significant positive relationship between SMEs financing and economic recovery and national development in Nigeria via investment level. Descriptive statistics were also used to appraise certain financing indicators. The study recommended that accessibility to relative low interest rate finances should be provided to small and medium enterprises in Nigeria in order to enhance economic recovery and national development.

Business venturing and Nigeria's economic development with particular focus on the manufacturing sector was the interest of Ebiringa (2011). Using descriptive statistics, the study found that SMEs were the business model often used by entrepreneurs to participate in economic development of their environment. In Nigeria, the immediate economic reason for venturing into SMEs by entrepreneurs is to create employment for themselves and their family members as evidence available shows that SMEs in Nigeria generate more employment opportunities per unit of investment than large scale firms. However the output of these SMEs as a percentage contribution to overall national productivity or gross domestic product has remained grossly insignificant due to factors beyond the control of entrepreneurs. The study concluded that concerted effort should be made by stakeholders especially government to provide the enabling environment needed for sustainable SME activities.

Oyelola, et, al (2013) evaluated the role of business in sustainable economic recovery and national development in Nigeria using narrative-textual case study (NTCS) methodology. Findings from the study showed that business has been instrumental in economic recovery and national development, balanced regional development and job creation in most dynamic economies, where technology is changing at a faster rate and the product lifetime cycle is shrinking.

Etuk and Baghebo (2014) used descriptive analysis to investigate the relationship between small and medium scale enterprises (SMEs) and Nigeria's economic development. The study found that Small and Medium Scaled Enterprises (SMEs), if fully developed, had been identified as being beneficial in alleviating poverty through wealth and job creation. This sector can benefit any government that develops it to the extent that it has the capacity to grow a country's GDP, generate taxes and other revenue, as well as assist in bringing stability in the polity of a country. The study concluded that the corporate world could also gain from the specialized goods and services of SMEs and the healthy market competitiveness it promotes. This would eventually engender a strong private driven economic sector, with entrepreneurs springing up.

Egibiremolen and Igberaese, (2013) investigated the role of Small and Medium Enterprises (SMEs) in the achievement of economic recovery and national development in Nigeria using linear regression model and granger causality test. Study result indicates that SMEs are indispensable in achieving sustainable economic recovery and national development as they exhibit positive impact on the economy. This implies a boost to the economy for every increase in the operations and activities of SMEs. The granger causality test reveals a unidirectional causal relationship between SMEs and economic recovery and national development, running from the former to the latter. The study recommended an adequate and coordinated financing with relatively low interest rate should be made available and assessable to SMEs across Nigeria, as the issue of inadequate funding has remained the major bane to their successful operations. Also, government should make available needed infrastructure and incentives like regular power supply, good roads and tax holiday. These would greatly enhance and encourage the activities of SMEs and position them to play their all important role in the achievement of sustainable economic recovery and national development in Nigeria.

These studies differ methodologically because modeling the role of business in economic recovery and national development has been elusive since the concept of business is difficult to parameterize. However, entrepreneurial insights lay the foundation which drives growth process (Gwartney, 1996; Scully, 1992 and Knack, 1996). Therefore, as part of contribution to empirical literature on business-economic recovery and national development nexus, the present study uses parsimonious error correction model (ECM) to model the role of business and technology in economic recovery and national development in Nigeria.

III. RESEARCH METHODOLOGY

3.1 Research Design

Multiple regressions will be used to analyze the role business and technology in economic recovery and national development. The data to be used will be secondary data and all will be from the Central Bank of Nigeria (CBN) bulletin (2016).

The method used for this research work is the ordinary least square (OLS) method. This is because OLS has the Best, Linear, Unbiased, Estimator, it is linear unbiased and has smallest variance as compared with all other linear unbiased estimators of the true b. Another reason for the use of OLS is that the computational procedure of OLS is fairly simple as compared with other econometric techniques and the data requirements are not excessive. Again, the mechanics of the OLS are simple to understand. It is also an essential component of most other econometric techniques.

3.2 Model Specification

This is the mathematical relationship that exists between the dependent and the independent variables and the model for the parameters of the function. The model based on the following functional relationship.

The econometrics form of the model can be stated thus:

$$\text{Log RGDP} = \beta_0 + \beta_1 \text{TECHO} + \beta_2 \text{NEX} + \beta_3 \text{DOP} + \text{Ut}$$

Where Log RGDP = Real Gross Domestic Product at the Current market Price

TECHO = Technological Output

NEX = Net Export

DOP = Degree of openness gotten as the ratio of GDP to total trade

Ut = Error term

β_0 = Coefficient of independent variables

t = Time period

3.3 Method of Evaluation

evaluating the results of the regression, econometric tests and statistical tests are employed.

3.3.1 Statistical Criteria: First Order Tests

Theories of statistics prescribe some tests of finding out how accurate the parameter estimates of a model are. These tests help to suggest whether or not the parameter estimates of the model will be evaluated on the basis of the statistical significance. The coefficient of determination, r^2 will be used to test the goodness of fit of the regression line to sample observations or the explanatory power of the independent variable.

The F-test: will be used to test the overall significance of the regression model. The T-test: Coefficients of the model will be tested for significance using the T-testing procedure is based on the assumption of the error term U_t follows the normal distribution i.e. to tests for the exact level of statistical significance of the coefficients.

3.3.2 Econometric Criteria: Second Order Test

These are set by the theory of econometrics and are aimed at investigating whether the assumptions of the econometric method employed are satisfied or not. Thus, the assumptions of the Ordinary Least Square (OLS) will be investigated; here the time series properties of the variable of the model will be tested.

- The econometric test involved in the Durbin Watson (D.W.) statistics which is to test for the randomness of the residuals.
- Stationary test: It will be tested to see whether the variable of the model are stationary. This will be done using the ADF (Augmenting – Dicky Fuller) test.
- Normal test: It will be tested to see if the error term of the model normal is distributed, for the purpose Jarque-Bera test of normality will be employed. This necessary because, the T and tests require that the error follow the normal distribution.
- e employed. This is necessary because, the T and F tests require that the error term follow the normal distribution.
- Heteroskedasticity Test: This shall be used to test whether the error term has constant variance

3.3.3 Estimation Procedure

The method for this study is the simple linear regression, applying the Ordinary Least Square (OLS) technique, OLS is chosen its basic property of Best, Linear, Unbiased, Estimator (BLUE). Secondly, the estimates obtained from these procedures have optimal properties, linearity and minimum variance and also the least square method has been used in a wide range of economic relationship with fairly satisfactory result and it has an essential component of most other econometric techniques, Koutsoyiannis (2001)

3.4 Data Required and Source/ Software Package

The data that will be used for this research is secondary data. The data set shall come the point between 1984 – 2016. The data shall be obtained from the National Bureau of Statistics (NBS), Central Bank of Nigeria (CBN). The software package for estimation is E-view 3.0.

IV. DATA PRESENTATION AND ANALYSIS OF RESULT

4.1 Presentation of Regression Result

Unit Root Test

In this study, the augmented Dickey Fuller (ADF) unit root test was employed to test for the stationarity of the model variables. The null hypothesis is that the variable under consideration has a unit root against the alternative that it does not. The decision rule is to reject the null hypothesis if the ADF statistic value exceeds the critical value in absolute term at a chosen level of significant. The result is presented in the table below:

Table 4.1: Unit Root Test

VARIABLE	ADF STATISTIC	1% CRITICAL VALUE	5% CRITICAL VALUE	ORDER OF INTEGRATION
D(TECHO, 2)	-4.622160	-3.7343	-3.0038	I(1)
D(NEX,2)	-3.84196	-3.7497	-3.0038	I(1)
D (RGDP,2)	-3.095923	-3.7497	-2.9969	I(1)
D (DOP,2)	-5.004109	-3.7497	-3.0038	I(1)

Table 4.2: ADF Test Result For Residuals

ADF TEST	CRITICAL VALUE
ADF STATISTICAL – 2.128547	1% - 3.7497 5% - 2.9969 10% - 2.6381

Observe that ADF statistic is less than the critical value at 1%, 5% and 10%, there is conduct that there is no co-integration in the model.

4.2 Evaluation Based On Economic Criteria

As already pointed, our parameter estimates are expected to be conformed with the priori expectation, consequently, the table summarizes the outcome of our model parameters on a priori ground.

Table 4.3: Outcome Model Parameters

VARIABLE	EXPECTED SIGNS	OBTAINED SIGNS	CONCLUSION
D(TECHO)	Positive	Positive	Conforms
D(NEX,2)	Positive	Positive	Not Conforms
D(DOP,2)	Negative	Negative	Conforms

Technological Output and Net Export therefore conforms with the theoretical postulates while degree of openness is not consistent with a priori expectation.

Statistical T-Test

The student t-test involves comparing t-cal (calculated) with its tabulated value which define the critical region in a two-tailed test, with n-k degrees of freedom (n = sample size and k = total number of estimated parameters).

The summary of the student t-test is presented below:

Table 4.4: Summary of the student t-test

Variables	t* calculated	T-tabulated	Decision	Conclusion
Constant	406.2811	1.721	If t* <1.721	Significant
NEX	3.001462	1.721	If t* <1.721	Significant
TECHO	22.39473	1.721	If t* <1.721	Significant
DOP	-0.452006	1.721	If t* >1.721	Not Significant

The above results shows that all the variables are significant except DOP that is not significant in the model. This implies that business has a significant impact on economic recovery and national development in Nigeria. The result shows that the Technological Output and the Net Export have significant impact on economic recovery and national development in Nigeria. R² it tells the level of variability on dependent variables adequately. This is evidenced in the high value of R², which is 0.975411, showing that Technological Output and Net Export pointedly accounted for at least 97.3% of the variations in real GDP of Nigeria within the period of study.

F-Test

F ratio is used to test for the joint interest of the explanatory variables on the dependent variable. It tests for the statistical significance of the entire regression line. It is given as

$$F = R^2 / k - 1$$

$$(1 - R^2) / N - K$$

The computed f-ratio f_x , is compared with the theoretical f at 0.05 with $v = k - 1$ and $v_2 = N - K$ degrees of freedom where $v_1 =$ degrees of freedom for numerator

$v_2 =$ degrees of freedom for denominator.

K = numbers of bs (including b_0)

N = Sample Size

If $f_x > f_{0.05}$, reject the H_0 , otherwise accept the H_0 .

From our regression result $f_x = 256.2701$ while F -tal number $V_2 = 25, V_1 = 3 =$ at 5% = 2.99.

Since F-cal = 2562701 > F-tab = 2.99, we reject H_0 and conclude that at 1% level of significance, the overall regression is statistically significant. The significant nature reaffirms the liquidity of R².

Econometric Test (Second Order Test)

A test for autocorrelation

One of the assumption of (OLS) ordinary least square regression model is that errors are independent in the context of time series analysis, this means that an error U is not correlated with one or more of previous errors at -i.

The Durbin Watson d test compares the empirical d_x value, calculated from the regression residuals, with d_i and d_u in D-w table with their transforms $(4 - d_l)$ and $(4 - d_u)$

Decision Rule

- I. If $dx < dl$, we reject the null hypothesis of no auto-correlation and accept that there is positive auto-correlation of first order.
- II. If $dx > (4 - dl)$, we reject the null hypothesis and accept that there is negative autocorrelation of the first order.
- III. If $du < dx (4 - du)$, we accept the null hypothesis of no autocorrelation.
- IV. If $dl - dx (du \text{ or if } (4 - du) < dx < (4 - dl))$, the test is inclusive from our regression result, the:
 - $dl = 0.83$
 - $du = 1.523$
 - $4 - dl = 3.169$
 - $4 - du = 2.477$
 - $dx = 1.471890$
 Hence, $3.169 < 1.523cl. 471890$
 We concluded that there is a positive autocorrelation among the variables.

Normality Test for Residual

The JB test of normality is an asymptotic, or large sample, test and it is based on the OLS residuals. This test computed the shrewdness and tortois measures of the OLS residuals and uses the chi-square distribution (Gujarati, 2004). The null hypothesis for the test is:
 Ho: $U_1 = 0$ (The error term follows a normal distribution) against the alternative.
 H1: $U_1 \neq 0$ (the error term does not follows a normal distribution) at 510 with k degree of freedom.

Table 4.5: Normality Test For Residual

JARQU BERA	PROBABILITY	DECISION	CONCLUSION
2.611343	0.270	Reject H0: If $P < 0.05$	Accept Ho.

From the table above, observe that the probability of dargue-dera = $0.270 > 0.05$, we accept Ho and conclude that the residual follow normal distribution.

Test For Heterosedasticity

Heterosedasticity has never been a reason to throw out an otherwise good model. But it should not be ignored either (man kw. 1990). This test was carried out using Wholes general Heterosedasity test (with cross terms). This test asymptotically follows a chi-square distribution with degrees of freedom equals to the numbers of regression (including the constant terms) The auxiliary model can be stated as thus:

$$U_t = GDP - \beta_0 - \beta_1TECHO - \beta_2NEX - \beta_3DOP - \beta_4$$

Where U_t = Pure white noise error. This model is run and auxillary R^2 from it is obtained. The hypothesis to be tested is

HO: $\beta_1 = \beta_2 = \beta_3 \dots \dots \dots \beta_4 = 0$ (Homoscedasticity)

H1: $\beta_1 = \beta_2 = \beta_3 \dots \dots \dots \beta_4 \neq 0$ (Heterosedasticity)

Note: The sample size (n) multiply by the R^2 obtained from the auxiliary regression asymptotically follow the chi-square distribution with degree of freedom equal to the number of regressions (excluding the constant term) in the auxiliary regression using P.C. give software package serve as the above rigour by calculating the chi-square valued.

Decision Rule

Reject Ho If $x^2 \text{ Cal} > x^2 \text{ tab}$ at 510 level of significance, if otherwise accept Ho from the obtained result we conclude that there is no evidence of heteroscedasticity.

Table 4.6: White Hetrosedasticity Test

Statistics	Problems	Decision rule	Conclusion
2.469956	0.0077740	Reject H0: If < 0.005	Reject Ho.

Here is shows that there is Heterocedasticity in the Result.
 If the correlation is ≥ 0.8 , there is multi-collinerity on the model.

Table 4.7: Multi Collinearity Result

	RGDP	TECHO	NEX	DOP
RGDP	1.000000	0.754152	0.215998	0.533848
TECHO	0.754652	1.000000	0.332296	0.640146
NEX	0.215995	0.332296	1.000000	0.104820
DOP	0.533848	0.640146	0.164820	1.000000

The result above shows evidence of no multi-collinearity in the model since there is no correlation is grater or equal to 0.8

Table 4.8: Test for Co-Integration

VARIABLE	ADF STATISTIC	1% CRITICAL VALUE	5% CRITICAL VALUE
Residual	-2.084531	-3.7497	-2.9969

The residual is not stationary at both 1% and 5% levels, we observe that the RDF of the residual is less than the critical value, hence, we conclude that there is no co-integration in the model.

V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Business and technology has significantly contributed to the real gross domestic product (RGDP) of Nigeria, within the period under study. This has supported the idea that if given adequate support, business and technology will enhance economic development faster than any other sector of the economy.

The research result shows that the Net Export has a negative and insignificant affect on the real GDP. The finding supports the need to reduce the interest rate in Nigeria in order to encourage investors in large, medium and small scale industries.

The results also show that technological output has a positive and significant impact on economic recovery and national development in Nigeria.

5.2 Conclusion

Economic recovery and national development and development with their attendant benefits would be very hard to achieve if residents of an economy could not buy some goods and services from abroad and most importantly, export goods and services to generate revenue to pay for the imports. Consequently, the dynamic role of business as engine of growth in developing countries has long been recognized by economic development experts and corroborated in the theories considered in this study. It thus have an accelerating effect in achieving the macroeconomic objectives of nations such as full employment, income redistribution, favourable balance of payments, price stability, development of local technology, diffusion of managerial skills and stimulation of indigenouse entrepreneurship to innovation.

This research work has been able to establish the effect of business and technology on economic recovery and national development in Nigeria through the effect of some variables associated with business and technology (like net export, technology output, and degree of openness) on economic recovery and national development. The result showed that net export, technology output, degree of openness, business policy changes are in line with the a priori expectation and are positively related to gross domestic product. From 1984-2016 net export has been positive implying that export exceeds import but this increase is mainly contributed by a sector of the Nigerian economy. Thus Nigeria has not been able to benefit fully from business opportunities due to the detrimental effects of exports instability that are as a result of both price instability of primary products in the international market and the resulting fluctuations of export proceeds in domestic economy. The importance of business cannot be gainsaid, since no modern society can live in isolation. Nigeria depends on business to meet many of its needs, although in recent years it has achieved a healthy trade surplus. In 2015 exports amounted to \$64.1 billion, while imports were \$45 billion. The volatility of the global oil market and changes in fiscal and import policies cause large year-to-year fluctuations in the balance of trade.

This study has identified benchmark, rules or policies that will help foster development and increase Nigeria's opportunities to take advantage of the various benefits associated with business.

5.3 Recommendations

Judging from the result of the finding, the following recommendation could be considered.

- I. Active exchange rate policy that avoids over-valuation or excessive depreciation of the Naira and ensures competitiveness of tradable goods, relative price stability or low inflation as well as avoiding inconsistent fiscal policies should be designed. Technological change is a critical factor for growth that stems from

- Research and Development (R&D) and from innovative activities.
- II. Managing innovations better than one's competitors is one of the most important objectives of any modern economy that wants to grow, survive and thrive. Public policy should be designed to encourage success in managing innovation than in adopting the right capacity decisions from already known technological possibilities. Policy should be designed to strengthen manufacturing through tax incentives and infrastructure development by way of public-private sector partnership. Non-tariff barriers to support domestic manufacturing should be tenured, targeted and reviewed from time to time.
 - III. Policies should be enhanced at addressing some of the constraints to private business in Nigeria including poor infrastructure (electric power supply, public water supply, roads, railway, ports, airports, etc), bureaucratic customs system, dangerous security situation, for instance the Niger Delta scenario, poor telecommunication, etc should be reviewed and consistently improved.
 - IV. Since high productivity and competitive labour costs are based on literacy, general and business education and those technical skills most in global demand. Consequently, education and training systems should be focused on relevant skills particularly those needed in a modern society.

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