# TITLE PAGE

**AN ASSESSMENT OF THE IMPACT OF FOREIGN DIRECT INVESTMENT ON NIGERIAN ECCONMIC GROWTH (1990-2011)**

# BY

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# A PROJECT RESSEARCH WORK SUBMITTED IN PARTIAL FULFILMENT OF THE AWORD OF BACHELOR DEGREE (B.Sc) IN ECONOMICS FACULTY OF MANAGEMENT AND SOCIAL SCIENCE, CARITAS UNIVERSITY

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# CERTIFICATION

This is to certify that this project “ An Assessment of the impact of Foreign Direct Investment on Nigerian Economic Growth (1990-2011)” was carried out by Oguaju Sarah Ebere (Ec/2009/678) has been duly read and approved in partial fulfillment of the requirement for the award of Bachelor of Science (B.Sc) degree in economics, Caritas university Amorji-Nike Emene Enugu State.

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# DEDICATION

This project is dedicated to God Almighty who gave me the strength, knowledge, wisdom & understanding, Our Lady of Miraculous Medal and my patron Saint ST. Jude who has also seen me through this work.

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has contributed towards this study, I love you all and God bless and reward you all. Amen.

# ABSTRACT

This study assess the impact of Foreign Direct Investment in Nigerian economic growth over the period of 1990-2011. Data from Central Bank of Nigeria (CBN) Statistical Bulletin was used. The Ordinary Least Square (OLS) technique was specified and used to examine the relationship between the variables which includes the Gross Domestic Product as the dependent variable, export, Exchange rate, foreign direct investment and trade openness as the independent variables. The explanatory power of the model was given by the R2 of 85.5% and was subjected to t-test and f-test to test the significance of the independent variables.

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# CHAPTER ONE

* 1. **INTRODUCTION**

# BACKGROUND OF THE STUDY

Investors’ decisions and actions globally are influenced significantly by the dictates of self-interest which suggests that capital, not only be channeled to high-yielding economic sectors but also to those that are ostensibly quick yielding economies. On balance therefore investors would spun profitable opportunities characterized by extreme competitions, market glut, unfavorable regulation, long gestation periods and opt instead for investments that yield high returns within the shortest time possible. Base on this view, investors generally migrate from

one economy to another in search of better investment climate and higher returns.

This form of capital movement results in the creation of a typical investment called Foreign Direct Investment. In the opinion of Jomo (1988) Foreign Direct Investment can be explained to represent the flow of tangibles from a country abroad of capital, equipment and other production and processing facilities into a host economy. It is also defined as a long term investment reflecting a lasting interest and control by a foreign direct investors (or parent enterprise), of an enterprise entity residents in an economy other than that of the foreign investor (IMF, 1993).

Foreign Direct Investment is widely thought to bring with it into the host country a bundle of productive assets including long term foreign capital, entrepreneurship, technology skills, innovative capacity and managerial, organizational and export marketing know-how. The distinctive feature of Foreign Direct Investment is that it involves not only a transfer of resources but also the acquisition of control. i.e the subsidiary does not simply have a financial obligation to the parent company, if is part of the same organizational structure (Krugman and Obstfeld,2000). Foreign Direct Investment involves much more

than the simple transfer of capital or the establishment of a local factory in a developing nation. Multinational carry with them technologies of production, tastes and diverse business practices including cooperative arrangement, marketing restrictions advertising and the phenomenon of transfer pricing. They engage in a range of activities, many of which have little to do with the development aspirations of the countries in which they operate. (Todaro, 2000).

Temle (1999) demonstrates that technical changes and technological learning which are significant components of Foreign Direct Investment represent important determinants of economic growth. Furthermore, it is relevant to add that technology is generated by Research and Development (R&D), most of which is conducted in industrialized countries making technology transfer very important for economic prosperity of countries with weak Research and Development (R&D) and innovation capacities.

Political and economic policies bothering on FDI assist immensely in stimulating the economic growth of the recipient nations Chang(2001) believes that in the 16th and 17th centuries deliberate transfer policies of King Henry viii made Britain a leading manufacturing nation. Among the hotly debated issues in development,

economics is the role played presently by FDI in export performance of developing countries such as the case of East and South East Asian country.

FDI flows to Africa have expanded only marginally and are still at levels behind those of other developing countries. The region accounted for less than 1% of the global total FDI inflows in the late part of 1990s (Odenthal, 2001) while inflows to developing countries as a group increased from U.S $20billion to U.S

$75billion between 1981 and 1985. Africa’s share of that inflow dropped (UNCTAD 1999).

Historically, low rates of FDI inflows to the region and Nigeria in particular are explained by hostile policies, unstable political environment characterized by civil wars and armed conflicts, lack of effective regional integration efforts, poor and deteriorating infrastructure, burdensome regulations or lack of institutional capacity to implement FDI to establish confidence.

# STATEMENT OF PROBLEM

In recent time, the government of Nigeria has embarked on economic policies to check the flow of Foreign Direct Investment (FDI) in certain sectors of the economy. Admittedly, how to achieve rapid economic growth and

development through FDI which has proved to be one of the economic problems facing Nigeria.

Therefore, this work tend to analyze critically the following:

* + 1. The determinants of FDI in emerging economy such as Nigeria.
    2. The impact of Foreign Direct Investment on the growth of Nigerian economy.
    3. To analyze the increase in local wage cost through payment of wages by Multinational Corporations (MNC) affiliates.
    4. To examine the importation of capital intensive and cost dates technology.

# RESEARCH QUESTIONS

The following research questions have been designed as a guild to elicit reliable information for this study. They are:

* To which extent will the Nigerian economy depend on the foreign capital inflow?
* How friendly is Nigeria’s trade policy and environment to FDI?
* How have the Nigerian industries been stimulated by foreign technology?
* Does intellectual poverty production increase the attractiveness of FDI?
* To which extent has the FDIs in Nigerian led to the diversification of Nigerian economy?
* Has the rate and volume of FDI into Nigeria increased the consumption expenditure of its citizenry?

# OBJECTIVE OF THE STUDY

The objective of the study includes:

* + 1. To determine the magnitude of the impact of FDI on economic growth in Nigeria.
    2. To find out whether or not FDI has a significant impact on the growth of Nigeria economy.
    3. To examine the appropriateness and suitability of the nature and quality of foreign technology transfer on Nigeria economy.

# RESEARCH HYPOTHESIS

The following hypothesis have been formulated to determine the validity and reliability of the study.

1. **Null Hypothesis (Ho):** There is no relationship between the volumes of FDI inflows and the growth of the Nigerian economy.

**Alternative Hypothesis (H1):** There is a relationship between the volume of Foreign Direct Investment inflows and the growth of the Nigerian economy.

# SIGNIFICANCE OF THE STUDY

Technological adoption by any country is a function of local technological capabilities which in turn are largely determined by the quality and volume of Research and Development being sponsored by foreign or parent companies. Thus, FDI appears to substitute local innovation as the technology recipient firms in the n host country becomes mere in the global chain of affiliates subject to central decision making. Therefore, this study is designed to assist the policy maker in determining the technology transfer through FDI into Nigeria. Also, the global economic circumstances permit that national economics should be integrated into global economic network and this is only possible through effective capital transfers appraised and monitored through research of this nature.

There is also need to meet challenges post by foreign product domination of internal market and this is supported by research work such as this study. The study can also be relevant in universities and research centers in Nigeria libraries, National Bureau of Statistic and investors will find this study highly useful.

# SCOPE OF THE STUDY

The study is restricted within the confines of the impact of Foreign Direct Investment in the growth of Nigeria economy. The time frame covered by the study is between 1990-2011. The topic is chosen because of the importance of FDI in the growth of the Nigerian economy since independence.

# LIMITATION OF THE STUDY

In the course of this study, many problems were encountered and most of them centered on time, finance, dearth of data and poor attitude of respondents. The impact of time constraints were enormous because of the nature of programme. Financing of a project of this nature is always costly and this has been a major constraints because cost of sourcing materials, assemblage of data obtained, collected and printing constitute large chuck of fund. Also, dearth of data and poor attitude of respondents affected the early completion of the study many business organization in Nigeria do not make public their data bank for

reach studies and this affects the quality of the information generated from either National Bureau of Statistics (NBS) and those released by their personal.

# CHAPTER TWO

* 1. **LITERATURE REVIEW**

# INTRODUCTION

Trade investments are interdependent financial markets increasingly tie

together national economics especially those of Western Europe, North America, Asia and Africa. This relationship creates facilities that assist in building new wealth, taste and skills. Generally, periods of economic expansion coupled with prosperity even produce more opportunity for new transfers which are called Foreign Direct Investment (FDI). Foreign companies reduce the variability of their cash flow by producing and selling products in other countries. This portfolio effect is greater for companies that invest in less developed emerging economics.

These include most of Africa and South America as well as Asian countries such as Indian and China.

Foreign Direct Investment is therefore defined as an international interest in which a resident in one counting obtains a lasting interest in an enterprise resident in another (Agarwal, 1995). It is a situation where a foreign company creates a subsidiary to provide goods and services. Thus a firm undertakes FDI in a foreign market if it possesses an ownership advantage over the local competitors. The ownership of foreign investment usually remains in the investing (home) country. FDI represents, the primary means of transfer of private capital (that is physical or financial), technology, personnel and access to brand names and marketing advantage. Two central characteristic of FDI

companies and activities tend to be centrally. They are the major force in the rapid globalization of world trade. Economic size confers great economics and sometimes political power of FDI companies vis-à-vis the countries in which they operate. This power is greatly strengthened by their predominantly oligopolistic market position (Tadaro, 2000).

In most countries, FDI serves as one of the engines of successful transition. To a certain degree, most FDIs have markets seeking and efficiency seeking motives. UNCTAD (1999) findings reveal that FDI continues to increase at a global level that as Multinational Corporations (MNCs) integrate their business operations throughout the world. This report further confirms that the FDI transfers technology as well as company’s specific assets to host nations. FDI is one of the channels technology transfer and other channels includes:

 Importation of machinery and intermediate inputs or trade in general.

 Government efforts such as education provision and investment on high technical project.

 Contract manufacturing for developed country markets.  Export guide at tours of factories apprenticeship.

 Illegitimate means such as industrial espionage (Sjohn, 1999) (Mathes, 2000) (Ehang, 2001).

# THEORETICAL FRAMEWORK

The knowledge capital mode as propounded by multinational firms choose to internalize technology transfer through FDI over market base alternatives such as technology licensing because knowledge capital has a public good property. According to this theory, MNC affiliates are able to compete successfully with local competitors which have better understanding of the local market and other conditions because of their superior technologies, management and marketing know-how. If licenses gain access to the MNCs proprietary knowledge, the value of such knowledge can be dissipated.

Dissipation can occur either because of increased competition (Efhier and Markusen, 1990); Saggi 1999 or because the local partner has inadequate incentive to protect the MNCs reputation (Horsrman and Markusen 1987). The fear of dissipation may bring less advanced technologies to the affiliates. The foreign firm may however allow local firm to appropriate its technology if this guarantees it access to available in the host country such as access to receiving commercial advantages.

Other reasons why a foreign firm may allow appropriation of its technology include avoiding the cost of preventing technology transfer and increased efficiency with in MNC global network through development of manuals that allow quicker technology made available to domestic firms is thus partly endogenously determine by foreign invest. The investors can expend resources to preventing technology transfer if it is not consistent with their profit- maximizing strategy and if the cost of preventing the transfer is low.

# FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH (EMPIRICAL)

In the view of Romer (1997) and Lucas (1998) FDI spurs long-run economics growth such variables as Research and Development (R&D) and human capital. They suggested that through technology transfer to their affiliates and technological spillover to un-affiliated firms in the development of new intermediate product varieties raise product quality which facilitate international collaboration on research and development and also introduced new forms of human capital.

Conversely Kumar (1996) in is observation said that FDI has little or no impact on economic growth. He viewed that the impact of FDI on economic

growth firm-level and concluded that FDI lays much emphasize production than on domestic investment. This view is supported by Carkovia and Levine (2002), there are base on outcome of their research using simultaneity bias, country specific effects and proper use of lagged dependent variables in growth regressions. Their studies indicated marginal macro-economic impacts on economic growth. It is also observed that FDI’s actually exhibits characteristics capable of crowding out local investments and other types of foreign inflows in some countries and adversely affecting their current accounts.

However, Balasubramanyann et al (1996), Keller (1996) and OECD (2000) posits a different view. They believed that FDI contributed to total factors productivity and income growth in host economics over and above what domestic investment will trigger. They discovered that polices that promote indigenous technical training and R&D increases the aggregate rate of technology transfer frome FDI and that export promoting trade regimes are also important pre- requisites for positive FDI impact.

On the aggregate the limitations of FDI can be summed up as

* Domestic market oriented foreign firms employ more capital intensive technology than local firms.
* FDI contributes to transfer pricing balance of payments.
* There are no pervasive differences in wage rate strictly attributable to foreign ownership.

The indirect costs related to restrictive transfer contracts are much higher than the direct costs (Kumar, 1996). Some of the cost could be ameliorated by such general policies as environmental regulations/competition policies and good governance but FDI incentives reduces the welfare benefits (Kumar, 1998). To overcome the doubts and skepticism associated with FDI positive net FDI benefits are favored even though they are not automatic (Wells, 1993), (OECD, 2002). Even without technology spillovers, the effect of FDI on the local economy may be positive because the very positive act of curtailing spillovers by MNCs may create positive externalities to local agents for example, higher wages. FDI tends to have a smaller effect on growth in least developed countries (LDCs) however due to threshold externalities (OECD 2002).

According to Timamy (2007) for FDI to contribute to economic growth, the host country must have achieved a minimum threshold level of development in educated, technology, infrastructure, financial markets and health. In Nigeria, FDIs have not done much due to some incenting macro-economic environment

Oluba N. (2002) is of the view that in the past few years, particularly between 2009 and 2011, policy changes expected to orchestrate prosperity have clearly not materialized in-spit of several policy fine-tuning. Cumulatively and regrettably additional adverse risks and uncertainties that affect corporate competitiveness. He further limited that in 2011 that entrepreneurs voice up to new realities which few so called stability in economic prices and aggregate real output growth moving side by side with unprecedented levels of economic inactivity, massive credit defaults and heightened unemployment levels.

The un-favourable business environment does permit high thrust of FDI inflows in to Nigeria and also global fluctuations. Oluba (ibid) again limited that global economic environment is dotted with poor sustainability and debt outlook in many Eurozone countries and the down ward emerging market outlook.

The impact of this outlooks can be evaluated against the background that

* Europe and the U.S.A account for over 60% of Nigeria’s exports.
* Oil accounts for over 20% of total budget revenue which injects more.
* Velocity in Nigeria’s economic growth trajectory through a procyclical public expenditure profit.

**Table 1. Highlight of the 2012 Budget**

|  |  |  |  |
| --- | --- | --- | --- |
| **HIGHLIGHTS** | **2012** | **2011** | **CHANGE** |
| **Crude oil indices:** |  |  |  |
| Price per barrel | U.S $70 | U.S $75 | 60% |
| Daily production (mbpd) | 2.48 | 2.3 | 7.8% |
| Revenue available for F.G | #3.644b | #3.343b | 9.0% |
| **Expenditure profile (#bu):** |  |  |  |
| Recurrent (Non debt) | 2.472 | 2.423 | 2.0% |
| Capital | 1.320 | 1.148 | 1.5% |
| Debt service | 560 | 495 | 13.1% |
| Statutory transfers | 398 | 418 | 4.8% |
| Aggregate expenditure | 4.749 | 4.484 | 5.9% |
| GDP growth rate (budget) | 7.20% | 7% | 2.9% |
| Inflation rate | 9.5% | 11.80% | 19.5% |
| U.S & exchange rate | 155 | 150 | 3.3% |
| Fiscal deficit (% of GDP) | 2.77% | 2.96% | 6.4% |

**SOURCE**: Oluba N. Martin (2002). The frontier post being competitive in Nigeria’s Uncurtains Business Environment pg.12.

# FDI AND COMPETITION IN THE HOST MARKET

FDI has been looked upon as a veritable instrument for higher economic growth in Africa. It can be used to increase domestic competition thereby raising productivity, lowering costs and improving efficiency of resources allocation. Over the last two decades global output has grown strongly and over the same period, Africa’s output has also risen with much of it accounted for by South Africa and Nigeria. According to Ofon (2002) Africa’s share of the global economy has fallen from 2.2% in 1985 to 1.6% in 2004.

For long, African economics have relied on their extractive industries and the export of primary commodities as the main driver of growth making them vulnerable to global shocks. Again, he said one of the challenges African economics face in a bid to boost economic growth and reduce poverty is to break into world markets for manufactured goods and increase the value added to their services industry. Such growth in reveal can be generated from FDI inflows. However, it is feared on the hand that FDI could lead to higher concentration in

the host country firms, for example, improving total factor productivity (Blomstrom et al, 1999).

# IMPACT OF FDI ON PRODUCTIVITY

Technologies involves significant logic in their productivity effect mid therefore short time series data may not direct time series data may not show direct and indirect productivity benefits (Kumar, 1996). Moreover, before productivity benefits are realized domestic firms should be expected to suffer from an increase in competition with some of the inefficient ones weeded out to release resources for more efficient investment (Blomstrom et al 1999). With the analytical techniques and data desegregation improving overtime, many studies testing whether FDI leads to productivity improvement of local affiliated and non- affiliated firms have been converted.

In general, most firm level studies find foreign equity participation to be positively correlated to firms on plant productivity (own firm or plant effect), suggesting that at least joint ventures benefits from FDI. Over all, evidence on positive FDI spillovers for local firms are not engaged in joint venture with foreign firms which is week particularly in the case of developing nations according to literature surveys by Blomstrom (1999), Saggi (undated) and Kumar (1996)

indicated. The strongest and most consistent evidence of positive spillovers is found for vertical linkage in particular backward linkages and local suppliers in developing countries (OECD 2002) studies finding positive vertical spillovers includes that of Will more (1991) and Kumar (1990) Multinational Companies provides technical assistance, training and information to local supplier to ensure high quality. They also assist local supplier in the purchase of raw materials and intermediate inputs, moldering up grading their production facilities and even offer export and management advice.

Factors having significant influence on the magnitude of spillovers:

* + 1. Direct domestic competition.
    2. Host country labour market standards.
    3. Technological capability or absorptive capacity of local firms.
    4. Limited technological gap between MNC and host country firms (OECD 2002) complementary of foreign and host country technologies.
    5. The nature of Foreign Direct Investment (FDI)
    6. The motives and attributes of the foreign investors.

FDI spillover may occur through a variety of activities including labour and management training, demonstration, technological copying, direct licensing in

the production and distribution value chains. There is no consensus on the relative importance of the different channels.

# IMPACT OF FDI ON INNOVATION

FDIs role in innovation creation is very vital to the growth of any economy. This is explained by the way it substitutes local R&D (innovation) making the technology recipient enterprise a mere link in the global chain of affiliates subject to central decision making. MNCs centralize R&D and other technology promoting efforts in a developing economy undertaking local Research and Development (R&D) only if it fit in the global strategy of the MNC (Kumar, 1996).

This significantly solves down technology transfer to host country Bernstein and Molinen (1998) however found that host country firms could have appropriate productivity benefits from R&D, performed by foreign owned firms regardless of where it is performed through imports of intermediate goods produced by the foreign firm and through other channels. They also found that R&D performed by foreign firms raises the rate of return to R&D and other innovating generating activities of domestically owned firms. Innovation has proved to be one of the direct benefits of FDI globally. Thus, by increasing

competitions in the host country market, FDI forces local forms to innovate to remain competitive.

# IMPACT OF FDI ON TECHOLOGY ADOPTION

Technological adoption depends on the local capabilities of industries which in turn is largely determined by the quality of R&D made available by the FDI (Bernstrein, 1998). FDI may therefore lead to technology adoption if it has such capacities especially by establishing linkages by domestic firms through subcontracting and other mechanisms.

How local firms adopt technologies introduced by MNCs through invitation, reverse engineering or vertical linkages.

# IMPACT OF FDI ON HUMAN CAPITAL

Multinational companies affiliate enhance internal human capital through training and on-the-job training (OECD, 2002). With physical movement of workers, the human capital (knowledge embodied in workers) could be transferred to other sectors of the host economy. Gersherderg (1987) found that MNC affiliates in Kenya offer more training to their managers than local firms but there was limited evidence of labour turnover in Bangladesh’s garment industry

while a Taiwanese study found that almost 50% of all engineers and approximately 63% of all skilled workers that left MNC joined local firms in the mid-1980s.

The ability of the local firms to absorb technologies introduced by MNCs may be a key determinant of whether or not labour turnover occurs as a means of technology diffusion. Glass and Saggi (9991) said such ability is determined by local competitors and level of entrepreneurial efforts.

# FACTORS INFLUENCING DEMAND AND SUPPLY OF TECHOLOGY ADOPTION

There are many factors influencing the demand and supply of technology adoption in developing nations, such as host country characteristics, host government policies and size of technological gap between foreign and domestic firms (Blomstrom et al, 1999). Host country characteristics include market structure, degree of competition, technology competence of host country firms and location advantages such as presence of relatively cheap factors of production.

While highly competitive markets force host country firms to demand and seek appropriate technology, stiff competition in the presence of high cost of protecting technology against appropriation may reduce supply technology. The

presence of technological central of excellence in host country creates potential for MNCs to benefits from reverse technology flows.

# FACTORS LIMITING TECHOLOGY TRANSFERS

Access to developed country technology by developing countries is limited by the following factors:

* + - * Lack of basic technology capabilities and policies such as teaching and research institution, institution to raise awareness regarding advanced technologies.
      * Shortage of foreign exchange that hampers access to imported spare parts and technical consultancy.
      * Increasing restrictiveness of immigration of skilled workers, restrictions on machine exports, restricted export of raw materials strict intellectual property rights regimes, and high technology licensing fees etc.
      * Language and cultural barriers to expatriate worker that hamper transfer of tacit or understood knowledge contained in technology.

# ROLE OF NIPC AS ONE-STOP SHOP FOR INVESTMENT PROMOTION IN NIGERIA

The Nigeria Investment Promotion Commission (NIPC) is a federal government Agency in Nigeria, established by the NIPC Act No.16 of 1995. The commission has perpetual succession and a common seal, which is specially established. They include the following:

* + - 1. Co-ordinate, monitor, encourage and provide necessary assistance and guidance for the establishment and operation of enterprises in Nigeria.
      2. NIPC help to promote investment in and outside Nigeria through effective promotional means.
      3. The commission collect, collate, analyze and disseminate information about investment opportunities and sources of investment capital and advice on request, the availability chance or suitability of partners in joint-venture projects.
      4. Advice the federal government on policy matters, including fiscal measure designed to promote industrialization of Nigeria or the general development of the economy.
      5. To assist incoming and existing investments by providing support services.

In spite of the establishment of NPIC, many aspects of Nigeria economy has remained incompatible with the higher spread operational capital mobility which

has a result of lack of efficiency and rigid operating mechanisms that plague Nigeria which is an addition to the absence of an unified highly authoritative leading body for administering foreign investment regulation. Thus, so far so good, the NIPC has being able to link foreign investors with local partners and has provided opportunities in the country.

The NPIC has also succeed in removing whatever bottlenecks and helped in distributing massive inflows of Foreign Private Investment (FPI) into Nigeria by making the investment climate very attractive and transparent just like the South East Asian countries. However, NPIC has being able to enter directly into bilateral agreement with investors for purposes of investment protection, and issue business permits to foreign investors. They have also ensured the maintainer of liaison activities between investors and industries, government departments and agencies, institutions and other authorities concerned with investment.

According to the, a non-Nigerian may invest and participate in cooperation of any enterprise in Nigeria with few exceptions such as dangerous dry’s and military wars.

# BENEFITS OF FDI ON NIGERIA’S ECONOMY

Since independent Nigerian economy has largely depend on foreign cash flow through direct investment. Majority of the companies operating in Nigeria today have their origins or headquarters in Europe and United State of America. Foreign companies like shell producing and developing company, Chevron Nigeria PLC, MTN, Etisalet, and other inflows through Airline operations and construction companies have contributed immensely to the growth of Nigeria economy. Another benefit of FDI on Nigeria’s economy is that profits generated by FDI contributes to corporate tax revenue jn the host country (Nigeria). The recipients of Foreign Direct Investment (FDI) often gain employee training in the course of operating the new businesses, which contributes to human capital development in the host country (Nigeria).

Finally, Foreign Direct Investment (FDI) allows the transfer of technology, particularly in the form of new varieties of capital inputs which can be achieved through financial investment or trade in goods and services. FDI can also promote competition in the Nigerian domestic input market.

# CHAPITER THREE

# RESEARCH METHODOLOGY

This chapter centers on the research methodology employed in the study which is very important because it makes a lot of difference in the quality of any research (Anyanwu, 2000). It is the background upon which findings of a research are deregulated and concluded to understand the analysis done the study but also will help to clarify the procedure for the research.

# MODEL SPECIFICATION

This research will employ the single equation technique of econometric simulation for its analysis. Specifically, an Ordinary Least Square (OLS) regression model will be adopted. Thus, in this study, economic growth is explained by foreign private investment.

In Implicit form: GDP= F (FDI, EXPT, EXCH)…….eqn i

In Explicit form: GDP= β0 +β1 FDI +β2 EXPT +β3 EXR +β4 TOP + U…….eqn ii

Where GDP= Gross Domestic Product.

Β1= Coefficient of Foreign Direct Investment. FDI= Foreign Direct Investment.

B2= Coefficient of Export Earnings. EXPT= Export Earnings

B3= coefficient of Exchange Rate. EXT= Exchange Rate.

B4= coefficient of Trade Openness. TOP= Trade Openness.

B0= Constant U= Error Term.

# METHOD OF EVALUATION

* + 1. **ECONOMIC CRITERIA**

The equation (2) will be evaluated on the basis of economic criteria. This will inform us of the signs of the parameters whether or not they confirm to economic theory. Specifically β1, β2, β3, and β4 are expected to be positive.

# STATISTICAL CRITERIA

Statistical criteria will be based on checking T-value for the statistical significance, the F-test will be used to check the overall regression whether the model has goodness of fit. The R2 will be used to determine the power of the explanatory variables.

# ECONOMETRIC CRITERIA

This will be used to evaluate if the assumption of ordinary least square (OLS) are not violated they are as follow:

# AUTO CORRELATION TEST

This test will adopt the conventional Durbin Wastson test on checking for the presence of auto-correlation.

# MUTICOLLIMEARITY TEST

This test will adopt the correlation matrix test in order to check for the degree of Multi-Collimearity among the variable.

# HETEROSCEDASTICITY

This test will be preferred to see if there is heteroscedasticity among the

variable.

# JUSTIFICATION OF THE MODEL

The choice of this model is based on the fact that the OLS is best suited for testing specific hypothesis about the nature of economic relationship (Guajarati 20004). The reliability of this method has on its desirability properties which are efficiency, consistence and unbiased. This implies that its error term has a minimum and equal variance (Guajarati 2004).

# DATA REQUIRED AND SOURCE

Date used in this analysis are secondary data and for this study were sourced from Central Bank of Nigeria (CBN) statistical bulletin (2009).

# ECONOMETRIC SOFTWARE

PC-give econometric software used.

# CHAPTER FOUR

**PRESENTATION AND ANALYSIS OF REGRESSION RESULT**

# PRESENTATION OF RESULT

This Ordinary Least Square (0LS) result of the model specified in the previous chapter is presented below.

# Table 4.1 Result Summary (modelling LGDP by OLS)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variable** | **Coefficient** | **Std. Error** | **t-value** | **t-prob** | **PartRy** |
| **Constant** | 13.379 | 1.0091 | 13.257 | 0.0000 | 0.9166 |
| **EXPT** | -2.5546e-007 | 1.1297e-007 | -2.261 | 0.0380 | 2.2422 |
| **EXR** | 0.012529 | 0.0044329 | 2.826 | 0.0122 | 0.3330 |
| **FDI** | 1.0216e-005 | 3.4046e-006 | 3.001 | 0.0085 | 0.3601 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TOP** | -0.81802 | 1.7173 | -0.476 | 0.6403 | 0.0140 |

**R2 = 0.855028, F (4, 16) = 23.592 (0.0000), å = 0.605838, DW = 1.72 RSS =**

# 5.872633223

# ANALYSIS OF THE RESULT

# ANALYSIS OF THE REGRESSION COEFFICIENTS:

The interpretation of the above result in terms of the coefficient is given as follows.

The intercept is 13.379. This shows that if all the explanatory variables are held constant, gross domestic product will be 13.379

The coefficient of export earnings is -2.5546. This indicates a negative relationship between export earnings and gross domestic product, implying that a unit increase in export earnings will reduce gross domestic product by 2.5546.

The coefficient of exchange rate is positive (0.012529). This implies that a positive relationship exists between the exchange rate and gross domestic product, implying that a unit increase in exchange rate will bring about an increase in the gross domestic product.

The coefficient of foreign domestic investment is 1.0216. This shows a positive relationship between foreign direct investment and gross domestic product. It indicates that an appreciation in foreign direct investment will increase gross domestic product by 1.0216.

Trade openness has a negative coefficient of -0.81802. This indicates that a unit change is in trade openness will reduce gross domestic product by 0.81802.

# ANALYSIS OF THE EVALUATION METHODS

* + - 1. **EVALUATION BASED ON ECONOMIC CRITERIA**

This test is carried out to ascertain/evaluate, if the parameters conform what the economic theory postulates. This is in terms of signs of the parameter estimate. The priori test is summarized in the table below.

# Table 4.2: economic a priori expectation

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **Expected sign** | **Obtained sign** | **Conclusion** |
| EXPT | + | - | Does not conform |
| EXR | + | + | Conforms |

|  |  |  |  |
| --- | --- | --- | --- |
| FDI | + | + | Conforms |
| TOP | + | - | Does not conform |

* + - 1. **EVALUATION BASED ON STATISTICAL CRITERIA**

# The R2 (Coefficient of determination):

The R2 from the regression result is 0.855028. This means that the explanatory variables explain much of the variations in gross domestic product to the tune of 85.50%. In the other words, 85.50% of the variation in gross domestic product is explainable by the independent variables in the model.

# The t-test (Student t):

The t – test is employed to test the individual significance of the explanatory variables. The test is carried out under the following hypothesis

Ho: βi = o (The parameters are not significant).

Hi: βi ≠o (The parameter are significance) with n-k degrees of freedom. The decision rule is to reject Ho if tcal >tcab

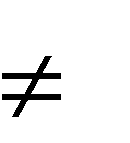
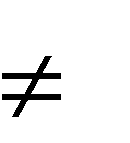
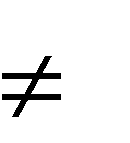
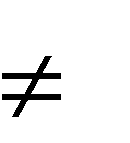
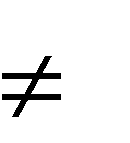
# Table 4.3: t- value

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **t - calculated** | **t- Tab** | **Conclusion** |
| **Constant** | 13.257 | 2.120 | Significant |
| **EXPT** | -2.261 | 2.120 | Significant |
| **EXR** | 2.826 | 2.120 | Significant |
| **FDI** | 3.001 | 2.120 | Significant |
| **TOP** | -0.476 | 2.120 | Not significant |

* + - * 1. **F-test:**

The F test is used to test the overall significance of the model. It follows F – distribution with K- freedom in the number and n-k degrees of freedom in the denominator.

TEST HYPOTHESIS:

Ho: βo = β = β2 = β3 = β4 = 0 (The model is in significant) Hi: βo β1 β2 β3 β4 0 (The model is significant) The decision rule is to reject Ho if F-cal > F-tab

From the regression result,

F-cal (F – statistic) = 23.592, while the F- tabulated = 3.01

Since F-cal > F-tab, we reject Ho and conclude that the model is significant and fit for policy making.

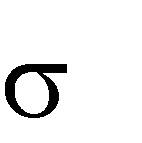
# ECONOMETRIC CRITERIA (SECOND-ORDER TEST)

1. NORMALITY TEST:

This test is carried out to ascertain if the error term follows a normal distribution. The Jarque-Bera statistic is employed which follows Chi – Square distribution with degrees of freedom.

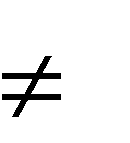
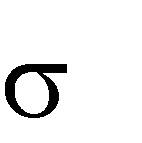
TEST HYPOTHESIS:

Ho: = 0 (The error terms is normally distributed)



1

Hi: 1 0 (The error term is not normally distributed)



At 0.05 level of significance, the decision rule is to reject Ho if x2-cal > x2-tab. From the result x2-cal (Jargue – Bera) = 2.371(@ 2 degrees of freedom), While x2-tab (under 0.05 significant level) = 5.991.

Since x2-cal < x2-tab, we accept Ho and conclude that the error term is normally distributed.

1. AUTO CORRELATION TEST:

This test is carried out to test if the successive values of the random variables are temporarily independent. The test hypothesis and decision rule is summarized as follows

# Table 4.4: decision rule

|  |  |  |
| --- | --- | --- |
| **null hypothesis** | **Decision** | **If** |
| No positive auto correlation. | Reject | 0 <d\* <dL |
| No positive autocorrelation | No decision | dL < d\* < dU |
| No negative autocorrelation | Reject | 4 - dL < d\*< 4 |

|  |  |  |
| --- | --- | --- |
| No negative autocorrelation | No decision | 4-du < d\* < dL |
| No autocorrelation, positive or negative | Do not reject | du < d\*< 4- du |

|  |  |  |
| --- | --- | --- |
| Where dU | = | upper limit |
| dL | = | lower limit |
| d\* | = | Durbin-Watson (calculated) |

From the Durbin Watson table dL = 0.927 and dU = 1.828 while d\* (from the regression result) = 1.72. Thus, d\* falls within the range dL < d\* < dU, where there

is no positive autocorrelation. However no conclusion can be arrived at.

1. HETEROSCDASTICITY TEST:

This test is carried out to evaluate the levels of distribution of the error term. It is used to test the variance of error term is constant. It follows chi-square

distribution with degrees of freedom equal to the number of regression in the auxiliary regression in excluding the constant.

TEST HYPOTHESIS:

Ho: Heteroscedasticity (The variance of the error term is constant) Hi: Heteroscedasticity (The variance of the error is not constant) @ 0.05 (5% significance level)

The decision rule is to reject Ho if x2-cal > x2-tab. From the Heteroscedasticity test result, x2-cal (obs\* R. squared) = 11.559 (@ 8 degrees of freedom), while from the x2-tab (@ 0.05 degrees of freedom) = 15.5.

Since x2-cal < x2-tab, we accept Ho and conclude that the variance of the error term is constant.

1. TEST FOR MULTICOLLINEARITY:

This test is carried out using correlation matrix. According to Gujarati (2004), multicollinearity is a problem, if any correlation exceeds 0.8.

# Table 4.5: correlation matrix

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **EXPT** | **EXR** | **TOP** | **FDI** | **LGDP** |
| **EXPT** | 1.000 |  |  |  |  |
| **EXR** | 0.7254 | 1.000 |  |  |  |
| **TOP** | -0.02145 | 0.06771 | 1.000 |  |  |
| **FDI** | 0.9373 | 0.8245 | 0.05718 | 1.000 |  |
| **LGDP** | 0.6852 | 0.8765 | 0.06040 | 0.8365 | 1.000 |

From the correlation matrix above, the pair-wise FDI and EXPT (0.9373), FDI and EXR (0.8245), LGDP and EXR (0.8765), and LGDP and FDI (0.8365), are greater than

0.80. Thus, we conclude that multicollinearity exist between these sets of pair- wise.

# EVALUTION OF RESEARCH HYPOTHESIS

The research hypothesis was stated in chapter one as.

Ho: There is no relationship between the volume of foreign direct investment inflows and the growth rate of the Nigerian economy.

Hi: There is a relationship between the volume of foreign direct investment inflows and the growth rate of the Nigerian economy.

CONCLUSION: From the regression results gotten, foreign direct investment has a positive relationship with the gross domestic product, and it was also revealed that foreign direct investment has a significant

impact on the gross domestic product. Therefore, we reject the null hypothesis (Ho) and accept the alternative (Hi), concluding that a relationship exists between the volume of foreign direct investment inflows and the growth rate of the economy.

# CHAPTER FIVE

**SUMMARY, POLICY RECOMMENDATION AND CONCLUSION.**

# SUMMARY OF FINDINGS

This study examines the impact of Foreign Direct Investment on the growth of Nigeria economy over the period of 1990-2011, we used an ordinary least square regression (OLS) in examing these variables. Since we now know that FDI is an investment which involves the transfer of a vast the set of assets, including financial capital, advanced technology and know-how, better management practices etc. with the environment of domestic and foreign policies, narrowing toward a common international economic order, induced globalization, foreign

Direct Investment now represent a major from of cross border resource inflow among countries. More than ever before, more firms industries and in many countries are expanding abroad through Foreign Direct Investment (either direct or portfolio). Based on the objectives, we found that economic growth is directly related to inflows of Foreign Direct Investment and it is also statistically significant implying that a good performance of the economy is a positive signal for inflow of Foreign Direct Investment.

Also from the result, foreign direct investment was statistically significant because its tabulated value was greater than the t-tabulated value at 5% level of significant. Thus, this findings comformed that Foreign Direct Investment has an impact or has contributed to the development and growth of Nigeria economy. While the EXPT and TOP were not statistically significant from the findings.

# POLICY RECOMMENDATION

Considering the finding in this analysis, the following recommendation are proposed to encourage, help and improve the inflow of Foreign Direct Investment in Nigeria.

* + - There is need for government to formulate investment policies incentives that will be favourable to local investors in order to compliment the inflow of investments from abroad.
    - To promote rapid economic growth, government should encourage the development of strong linkage between exchange rate and interest rate in order to facilitate the increasing trend of foreign investment into Nigeria.
    - Trade openness is another factor that cannot be ignored. For there to be a meaningful economic growth, the Nigeria borders/posts should be free and conducive so has to attract foreign investment activities. That is, there should be no delay at the ports for genuine activities.
    - Base on the export activities in Nigeria, the government should provide adequate infrastructure such as good road network, constant power supply, good and affordable means of communication to encourage local exportation of products by investment.

# CONCLUSION

From the above analysis of this work, we studied that the policies which are conducive to sustain growth and macro-economic stability are the necessary

elements of an enabling investment environment. They are to domestic ones, for determine risk profitability of investment. However, thanks to foreign direct investment, some sectors such as the telecommunication sector have experienced some degree of technology transfer. In the sense that since the year 2000, the use of mobile phones has been on the increase. Foreign Direct Investment has contributed to expanding and modernization of the production base, improved efficiency and management capacity, productivity and value added in the relevant sectors. Finally, for there to be a rise in economic development and growth through activities of private investors, the appropriate investment climate with necessary incentives must be put on place.

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