

## **CHAPTER ONE**

### **1.0 INTRODUCTION**

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

Industrial financing organizations have undergone a structural transformation during the last three decades in most developing countries. In this process of transformation, industrial development banks have emerged as catalytic agent of industrial and economic growth. This work is aimed at examining the contribution of the Bank of Industry (BOI) to the industrial development of Nigeria. Industrialization is regarded by the government as a sine qua non for National effort to achieve the degree of self reliance and confidence which are required to maintain the stability necessary for social peace at home and equally master the respectability which serves as an essential ingredient for meaningful involvement in international affairs and interactions.

The Bank of industry (BOI) was thus created to vigorously pursue this aspiration of the government. In fact with the increasing activities of (BOI) and Nigerians position among other African Countries especially those of the Economic Community of West African States (ECOWAS) and a great opportunity to develop the export sector. The United Nations strongly expressed the views that for

development to take place, Net investment in the country should be increased from 50 percent to at least 10 percent, it could then be argued that control facet of economic development is rapid capital accumulation including knowledge and skill.

Orthodox writers like Lewis and Rostow (1998) have proposed that industrialization is the engine which projects the development process of an economy.

This proposition was derived from a general station of the historical experience of the present day developed countries whose development took the form of an industrial revolution several arguments could be advanced in favor of industrialization. It is more likely to bring a change in attitudes, technical progress and structural transformation which development was assured to entail.

The level of productivity associated with any other sector. The result of the investigation provides alternative employment for the labour force and this would relieve pressure on the land. Most important of all is the linkage effects.

It has the highest capacity of linkage with other sectors of the economy.

The encouragement of indigenes as well as foreign enterprises would, among other things, enhance the economic development of Nigeria.

The appropriate institution that could carry out the function effectively is BOI. If BOI increases and effectively channels its finance activities management and technical assistance to investors in the industrial sectors, it will undoubtedly facilitate growth and development in the economy. BOI, as an industrial development finances institution, finances activities which include textiles, metal products non metallic minerals products and also hotels of international standards.

It provides medium and long term financial assistance only to limited liability companies registered in Nigeria and complying with the enterprises, promotion of 1972 and sometime makes equity investments. The numerous problems that plague the industrial sector like low level of technology, low level of investment, infrastructural administrative and structural frame work have hindered this sector from contributing substantially to economic development. To surmount this problem will require not only finance institutions like commercial banks, but more essentially degree of economic power by the choice of Projects or assets on which it places its funds that are generated from both local and foreign services. NIDB has existed for over thirty years, yet its impact has not been immediately felt (Hirschman 1977).

Consequently, some questions reality come to mind as regards to performance of BOI via-visa development in the industrial sector in particular and in the economy as a whole.

In most of the developing countries like Nigeria, industrial financing organizations have undergone a structural transformation during the last four decades.

In this process of transformation industrial development bank have emerged as a catalytic agent of industrial and economic growth.

Development banks are crucial in the economic development process of a country.

In Nigeria the development of financial institutions for development purposes could be traced to 1946 when the ten years development plan was launched by Britain. The first to emerge in the scene was the Nigerian Local Development Board (NLDB), which made loans and grants to native authorities, corporative societies and other related bodies were established and recognized. At the definite of the board, the northern, Eastern and western Regional development boards and Colony Development Board (CDB) were setup thus, financial assistance to industrial and agricultural projects. However, they had limited resources at their disposal though their impacts were not widely felt.

In 1956, the western region finance corporation (WRFC), the federal loans Board (FLB), the Northern Nigeria Development Corporation (NNDC) and the Eastern Nigeria Development Corporation (ENDC) were established to promote industrial development in the country. The first official development bank was NLDB (1946-1949). The second development finance institution was CDB (1949-1956). It was established with N100,000 grants from the regular government budget plus the colony share of the asset of NLDB which has been shared among the regional components in the country. It was charged with the dual role of facilitating both government and private economic activities. FLB was the third development finance institution, it was established in 1956 with one an initial grant of N600,000, with the following functions:

- I. To make loans to indigenous clients but not to the traders or for trading purpose.
- II. Make loans of all types within the environs of Lagos up to a maximum of N100,000.
- III. Share responsibility for longer loans in the region with Regional Corporation.

During the period of the colonial development board in 1946, Regional Development Boards like ENDC and NNDC were set up to operate on the regional level. With the establishment of HLB, the various regional development boards loan shares increased.

All the development finance institution at various levels had defects.

Firstly, they in most cases had every wide and ill-defined responsibility much beyond their special capabilities.

In the attempt to narrow down their area of operations, almost to the points of putting themselves out of business and operation for instance FLB. In addition to its original restrictions on loans to trading and foreign owned enterprise refused to grant loans to set up new business on the ground that new investors are inexperienced and lack of knowledge of new ventures. It also denied loans to prosperous enterprises on the grounds that they were capable of raising capital from normal sources.

Furthermore, it made working capital loans on the grounds that they were capable of raising capital that could be gotten from commercial bank management deficiency contribution in no small measure to the poor performance of the finance corporations.

The operational defects and inefficiencies of the regional development boards are summarized in the finding of two commissions of enquiry. The caller commission of inquiry into the affairs of certain statutory corporations in Western Nigeria and the comprehensive review of the past operations and method of the Northern Nigeria Marketing Board, the finding of the two commissions revealed that many of the projects were recklessly entered without any regards, whatsoever, for the safety of the resources that were being invested in the various undertakings.

## **1.2 STATEMENT OF THE PROBLEM:**

Labour may be abundant but the gross national output of the less developing countries (LDC's) remain limited by. It is widely recognized that the LDC's must make additional efforts to mobilize and achieve effective use of their available resources. The mobilization of external resources requires policies that would facilitate the process of capital accumulation.

Many economists, including Rostow and Lewis, emphasized capital accumulation as the major factor governing the rate of the development (Udabah 1999).

BOI has carried out its mandate under difficult conditions with Government support; it has been able to overcome many operational and organizational

problems. A few lessons may be drawn from experience. First, the assumption of the exchange risk by BOI's sub borrowers in a context of exchange rate instability (a major devaluation took place in September 1986 as part of the adjustment process) had seriously affected their viability and thus undermined BOI's own portfolio quality and credit worthiness, although the government did subsequently step in to share the exchange losses. This emphasizes the importance of DFI's having a reasonable balance between foreign currency and local currency liabilities. Secondly institution building is a slow and continuous process, lack of discipline in following sound banking practices and inadequate commitment to continue staff training could adversely affect the institutional effectiveness. Thirdly, the BOI should have contained to some extent its zeal for its development role and maintained a better balance between developmental and commercial objectives. Lastly, BOI's experience emphasizes the need for more thorough sensitivity analysis of all subprojects to take accounts the impact of changing economic situations.

### **1.3 RESEARCH QUESTIONS**

The study revolved or tries to answer the following research questions;

- a) What are the contributions of the bank of industry to industrial development in Nigeria?
- b) How have the BOI contained and maintained a better balance between developmental and commercial objectives?
- c) To what extent has the contribution of BOI's influenced the selected macro economic indicator in Nigeria?
- d) How have the BOI been able to overcome many operational and organizational problems?

### **1.4 OBJECTIVES OF THE STUDY**

The broad objectives of the study are to examine the contribution of the bank of industry to industrial development in Nigeria.

Specifically, the study seeks to achieve the following:

- a) To establish a relationship between the BOI's disbursement and industrial development in Nigeria

- b) To determine if there is equilibrium or stable relationship between BOI's disbursement and the rate of industrial production in Nigeria.
- c) To gain useful policy conclusion from the study.

## **1.5 RESEARCH HYPOTHESIS**

The hypothesis of this study includes:

H<sub>0</sub>: Nigerian industrial development bank has no significant impact on the industrial production.

H<sub>1</sub>: Nigerian industrial development bank has significant impact on the industrial production.

## **1.6 SIGNIFICANCE OF THE STUDY**

The significance of this study is that it addresses the directed emphasis on industrial development banking as an engine of growth and development. It also helps in revealing the prospects and problems of BOI with reference to its performance in the Nigerian economy. It will provide guidelines to policy makers in formulating policies relating to industrial financing. It is hoped that present work regard further research this field.

The study will put into proper perspective role of developing banks in developing countries.

## **1.7 SCOPE/LIMITATIONS OF THE STUDY**

This study covers the entire development efforts of BOI particularly in the industrial sector and in the economy as a whole.

In view of numerous difficulties associated with data collection and financial constraints, duration of twenty nine years (1980-2010) will be considered the coverage embodies the number of sanctions and the disbursements, during the period. Sub-sectarian distribution of the sanction and disbursement will be considered particular attention will be paid to the attempt made by the government in terms of the first supply and other sources of fund available to the bank within this specific period.

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

#### **2.1 THE THEORETICAL LITERATURE**

The rationale for development banking in general, is explained in three thesis. These are the gap thesis, the exigency thesis and the catalyst thesis.

Generally, the establishment of development banks stems from the existence of “gaps” in the financial system and the need to fill such gaps. Thesis gaps were first highlighted in the historical Macmillan report in the United Kingdom which identified two main causes of the gap. The reason advanced was the tradition and inadequacy of the commercial banking system in financing industries with long term capital. The second is the traditional function of the central and regulation of the financial system. They are therefore not expected to indulge in the finance of long-term projects from the two points above; it has been argued that the existing financial arrangement is service oriented. The provision of medium and long term finance was neglected.

The need for this type of finance led the Macmillan committee to recommend the establishment of specialist finance institution like the industrial finance corporation.

Another reason advanced for the establishment of IBRD (World Bank) and IMF gave recognition on international development on a global basis. The IBRD could not function effectively on a local level, thus there was the need to decentralize its operations into infrastructural private sector, industrial finance and agricultural finance. The industrial finance corporation (IFC) was set up specifically to undertake industrial finance and different basis. Against this background, the establishment of development finance institution was arranged so that the World Bank could largely operate at the grass roots level. The Nigeria Development Bank are offshoots of this development (Shatz 1964) affirmed that the establishment of development banks was to undertake detailed technical and credit worthiness appraisals of the many small projects at the grassroots level which the world bank cannot hitherto to undertake effectively. It could be contended from the above view that development banks assistance to private industry.

(Basu S.K. 1965) viewed development financial institution as catalyst to stimulate investment in private investment in the private industrial sector, and in making available new skills and enterprises as well as capital as instruments of economics development in their own right. This catalyst argument was derived from the need to simulate a fast rate of economic development and from the belief that industrial expression can be achieved speedily. In the industrial countries many of these

development banks originated during the depression of the 1930s while in most developing countries, these intuitions are of post second world war creations. One part worthy of note is that there are some of these development financial companies that are concerned with the government sector solely. These intuitions help to plan finance and layout government investment or projects.

An example is the Soviet from bank that is concerned with long term financing of industries which is the channel through which budgetary appropriations and other planned allocation of funds are made available to the state enterprises. There are other categories of development financial institution, which are devoted primarily to stimulating the private sector of the economy by providing adequate capital required for investment purposes and not as an administrative device to handle this government such as banks are designed to be the means of mobilizing resources and shells and channeling them with approved field under private sector rate than into the public sector such banks are common in Britain, France and Latin.

In American countries, Teriba O. (1966) in his contribution contented that development banks are needed to finance specified projects particularly the type which private intuitions cannot easily be induced to finance, especially when they are largely experimental in nature or when there is a possibility of changes which would drastically alter the economics of the investment opportunities.

In conclusion, development banks are creations of the government and they are created because of the points enumerated previously which could be summarized as the gap exigency and the catalyst reason.

Also, it was realized that it takes time and a lot of organizing experimentation to work out incentives and regulations which would effectively induce private institutions to allocate finance.

### **2.1.1 THE OBJECTIVES OF BOI**

Nigeria, like most developing countries is predominantly an agricultural country producing food crops for home consumption and cash crops for exports. The cash crops which includes cocoa, rubber, groundnut and palm product were initially exported in raw form to feed the rapidly expanding industries in industrialized countries, most particularly Western industrialized countries. These cash crops command relatively low prices in the international market because the buyers were the price setters to improve on this situation so that these agricultural products will command a fairly higher price in the world market. It became pertinent that product should be processed at home before exporting them to the more

industrialized countries, thus called for the development of the industrial sector of the economy principally to:

- a) Reduce Nigeria dependency on foreign sources for finished goods or product.
- b) Provide facilities for processing of our local raw materials.
- c) Earn more foreign exchange through reduced import.
- d) Provide job opportunities for Nigerians which will help to absorb the pool of trained manpower that has constantly been on the increase.

The objectives enumerated above could only be achieved by adequately providing the necessary inputs such as capital, labour and raw materials for production.

It was against this background the Nigeria Industrial development bank was established (Ugwuanyi W. 1997).

Objectives or sectors which government may regard as deserving proprietary, the justification for the existence of development financial institutions is therefore not strictly as a result of under development problems inherent in developing countries they exist to broaden the existing base of capital development.

### **2.1.2 SOURCES OF FINANCE**

The major sources from which BOI derived its fund for financing projects could be classified into both domestic and foreign sources. The Federal Government constitutes the major domestic source of finance. Loans are also obtained from the World Bank, International investment institution like the European Investment Bank (EIB). It also involved a cash offer by the Central Bank of Nigeria of one quarter of each of existing share holdings of the capital of ICON, and the subscription of about the international finance company and leading financial institutions in Europe, Japan and United States of America.

The original share holding in BOI is illustrated. Nigeria industrial development Bank started operating with an authorized capital of ₦10 million out of which ₦4 million was issued and paid at once as ordinary assistance principally to limited liability companies registered in Nigeria owned companies or companies in which Nigeria have substantial equity investments, its finance companies which by their size could make significant contribution to Nigeria economy. However, small scale industries, trade, agricultural and services sectors of the economy, with the exception of Hotels of International standard and Tourism are included. The BOI does not accept deposits from its clients or customers, it finances projects located in any part of the country thus encouraging dispersal centers. The scope of its

activities is therefore limited to manufacturing, non-petroleum mining, tourism and hotels. BOI's financial assistance does not only include new project but also for the expansion of already existing ones, provided the project is economically desirable, that the project must show some promise of raising living standards, providing employment or conserving foreign exchange. Such project should be technically feasible in the sense that the technical process involved should be capable of being carried out under existing conditions of availability of raw materials, technical and managerial personnel and labour. BOI has given financial assistance to textile industries, food and beverages, metal products, chemical products, leather and leather products, paper-products, hotel and tourism (Udabah 1999).

### **2.1.3 THE CONTRIBUTION OF BOI**

In fact functions of BOI were sum up in the first National Development Plan. Under which it was established under this plan, the bank was expected to join foreign skills and experience, and foreign private capital with Nigerians skills and capital in the expansion of existing one evaluate proposals on commercial principles but ready to finance enterprises which channels do not exist or the risks one demand unattractive for private financing, create opportunities for investment in Nigeria industry and provide outlets for productive investment of Nigeria savings and corporations. Although it would be concerned primarily with medium

and large scale enterprises, it was expected to provide some facilities for smaller scale industries through other expanded credit institution.

#### **2.1.4 EVIDENCE**

The role of capital, capital accumulation and development investment, moreover, yield different results, depending in the industries in which it is made, therefore, for the government of an under development country to design an appropriate plan for development it must be informed of the quantitative aspect of savings and investment, and their effects on production is growing rapidly, to estimate the rate of development that would be needed to bring about an improvement in per capital income or a high rate of employment for the growing work force.

In some industries where so called “indivisibilities” play a role, these are such minimum sizes of projects for the country as a whole, this may mean that only a “big push” as it has been called, can really help to start the process of development the contribution of capital in economic progress is not however, conformed to the instruct of additional capital assets similar to those already in existence it embraces three processes. Firstly, a greater abundance of capital permits the introduction of

more rounds about methods of production or to be more precise of more rounds about pattern of consumption.

This covers the free use of capital instruments in the production of a given product, the use of more durable instruments and a change in the pattern of consumption in favour of goods and services with relatively high capital charges per unit cost.

Secondly, the accumulation of capital is a normal feature of economic expansion however, origination: This is the process that is normally referred to widening, as opposed to the structure of production. It may accompany industrialization or any change in the balance between industries that makes additional demands on capital or it may accompany an extension of the market associated with population growth, more favorable terms of trade or the discovery of additional capital may be required to allow technical progress to take place. It may either finance the discovery of what was not known before or more commonly the adoption of existing knowledge so as to allow its commercial exploitation through some innovation in product process or material (Meirer 1976).

Looking at these three, the first is generally of subordinate importance, it is unusual for capital accumulating unassisted by other factors to bring about a rapid increase in income. The second who also abstracts from any change in technology accounts for nearly all the capital accumulation that has taken place in the past,

forces making for rapid increase income maybe largely nullified unless they are reinforced by a paralleled increase in capital. It is to the third however that one must usually look at least in an advanced industrial country for the main influences governing the rate of growth e.g. real income per head whatever may have been true in the past, it is now technical innovation, and the introduction of new and cheaper ways of doing that dominates economic progress. Other technical innovation in the sectors of the economy in which it occurs, makes large demands on capital is however doubtful. Many innovations can be given effect in the course e.g. capital replacement out of depreciation allowance which is an expanding economy, may be fully as large as not saving. It assumes that technical progress operates largely in independence of capital accumulation and that capital is needed, not in order to allow innovation to be made but in order to consolidate the improvements in income that innovation brings about. Moreover, it implies that if, at anytime, the process of innovation creates a bulge in the demand for capital, it should be possible to adapt the pattern of investment so as to accommodate the high yielding requirements of industry by displacing part of the larger, but less enumerative, requirements of house building, stock building, etc. (Kaldor 1985).

The effect to technical progress is generally to widen the divergence between the actual stocks of capital of the stock consistent with the full exploitation of current

workers opportunities. Some part of the additional capital will be needed to finance the innovations directly, either because associated industries are offered a wider market or because social capital has to be provided in an area where it has become insufficient, some will be like indirectly in the way already outlined, because the increase expenditure of consumers will give rise to derived demand for capital.

The introduction of the steam engine for example brought into existence of large reservoirs of projects that trickled out into capital formation all through the nineteenth century. The stock of capital appropriate to existing technique was far above the existing stock both because the steam engine was capital wide application and because many industries that made no use of it (such as bridge-building) were transformed in scale or like agriculture and many pursuits ancillary to it in location. A variant of this situation is one in which there has been a considerable lay behind the known opportunities for the fruitful use of capital at existing rates of interest. A country may fail to make use of technical knowledge available elsewhere and suddenly become alive to the possibilities of applying that knowledge. At the stage its capital requirements will increase it's continuously and additional capital which it requires before bumping up against the limits of technical advance may be very large. It appears the situation is in the minds of

those who assume that the injection of additional capital into the country's economy will almost automatically speed up its economic progress.

This is a complex situation and it may exist in some underdeveloped countries but it is by no means obvious that additional capital, whether borrowed from abroad or accumulated through the exertions of surplus labour in the country side, would be itself suffice to start off a cycle industrialization. The problem is often one of the organization quite as much as of capital creation of training management and maintenance of creating new attitudes towards industrial employment of taking advantage of innovation that need little capital and using the resulting gains to finance investment elsewhere (Levis, A. 1998).

### **2.1.5 RELATIONSHIP BETWEEN OUTPUT AND CAPITAL**

In the work of modern economists, a high rate of capital formation usually accompanies a rapid growth in productivity and income but the casual relationship between the two complexes and does not permit any facile assumption that more capital formation will bring about a corresponding acceleration in the growth of production.

In industrialized countries, capital formation may assume forms such as house building or an addition to liquid stocks that are unlikely to add very perceptibly to productivity although they may yield a sufficient return to make them worthwhile. If all capital formation were of the character, or represented an enlargement of the capital stock with assets broadly similar to those already in existences, it would be hard to account for the rates of growth actually recorded. A moment's reflection will show that even an average return of 10 percent to capital in a country saving 10% of its income annually would raise income by more than 1% per annum. Similarly efforts to input the recorded expansion in industrial production to the additional labour and capital contribution to it unavailable leave a large unexplained residual. It is necessary, therefore to take account of other influences such as technical progress and improvement in societal and economic organization, which may operate through investment, or independently of it, so as to raise the level of production. The influences, if they take effect uniformly through the economy in competitive conditions, will tend to swell the national income without raising average to the consumer, the wage earner or the government (Meier 1976).

## **2.2 EMPERICAL LITERATURE**

Osondu (1995) in his research on the contributions of the Nigeria industrial development bank to the economic development of Nigeria finds out that the devaluation of the Naira that took place in September 1986 as part of the adjustment process has seriously affected the viability of BOI's own portfolio.

He therefore recommends that the Government should step in and help to increase the credit of the bank.

Ufodiama (1990) in his work the role of BOIO in financing industrial activities in the country finds out that BOI's prefer to grant loans to customers with viable collaterals since some of the industries provide improper feasibility studies therefore the bank finds financing the project very unattractive because of the inability of such borrowers to repay these obligations as when due. This is as a result of:

- a) Diversion of funds provided to other ventures.
- b) Changes of economic trends and activities.

He concludes that the BOI do not adhere strictly to the Central Bank credit guidelines provision.

Uzomah (1995) in his research on BOI's contribution to industrial development in Nigeria finds that BOI's generally require their customers to present collateral security before extending the credit to them.

He concludes that banks financing is the easiest source of financing industries because it only needs good reputation and ability to repay by the industrialists in order to secure banks loan.

Udeh (1995) in her work "the role of Nigeria industrial development Bank (BOI) in industrial development of Nigeria". She finds out that the bank has made many decisions that affected industrial development in the country. It decided how much to lend, thereby influencing the circulation and also at the disposal of investors. This goes to affirm that the bank's decision has much influence on the economy in general and the industrial sector in particular and economic growth and development in general.

During the course of her work, she found out that the sanctions and disbursements of funds are directed to sub-sectored operation which covers the various manufacturing sub-sectors like textile, food, metal products and non-metallic mineral products.

She concludes that industrial financial organizations have undergone a structural transformation during the last three decades, in most developing countries.

In this regards, industrial development bank have emerged as a catalytic agent of industrial development and economic growth.

Humah (1995), in his research about the role of industrial financial institutions to industrial development of Nigeria, he found out that;

- a) A high degree of default rate by client has characterized the activities of the bank.
- b) The disbursements of the bank were below the sanctions.

He concludes that the performance of the banks during the period of his research work is not very satisfactory, at least in the area of meeting its loan demand and recycling of loan able funds.

A critical look at the activities of the BOI shows that it is wary of risk bearing.

### **2.3 LIMITATIONS OF THE PREVIOUS STUDIES**

The above studies have contributed in one way or the other in understanding the contributions of Bank of industry (BOI) to industrial and economic development of Nigeria.

However the studies did not exceed the year 2007 I attempt to cover up to the year 2010.

The previous studies blamed most of the banks defaults on government and failed to look at the inadequacies of the Bank management and the preferential treatment given to some clients by the bank.

## **CHAPTER THREE**

### **3.0 RESEARCH METHODOLOGY**

In this study the methodology that shall be adopted is the linear regression applying ordinary least squares (OLS). The reason for choosing this method includes;

Firstly, the parameter estimates obtained by ordinary least squares have some optimal properties which include linearity unbiasedness and minimum variance.

Secondly, the computation procedure of (OLS) is fairly simple as compared with other economic technique and data requirement are not excessive.

Thirdly, the least square method has been used in a wide range of economic relationship with fairly satisfactory result.

### **3.1 MODEL SPECIFICATION**

Model specification is showing or expressing the mathematical and economic relationships that exist between the dependent and independent variables.

Koutsoyiannis (1977) stressed the importance of expressing the relationship under study in mathematical form, i.e. to specify the model by which the economic phenomenon will be implored empirically.

Based on the above theoretical formation, the model would be specified in the general form as:

$$\text{INDO} = f(\text{BOID}, \text{INV}, \text{INF}, \text{GDP})$$

Where:

INDO = Industrial Output

BOID = Bank of Industry Disbursement

INV = Investment

INF = Inflation rate

GDP = Gross Domestic Product

This can be expressed mathematically as;

$$\text{INDO} = a_0 + a_1\text{BOID} + a_2\text{INV} + a_3\text{INF} + a_4\text{GDP} + \text{-----}U_i$$

Where  $U_i$  = error term.

## 3.2 METHOD OF EVALUATION

### 3.2.1 ECONOMIC APRIORI

VARIABLE	EXPECTED
BOID	POSITIVE
INV	POSITIVE
INF	NEGATIVE
GDP	POSITIVE

This follows that all the components of the model are all expected to be positively related to IDBD except inflation.

### 3.2.2 STATISTICAL TESTS

a) **R<sup>2</sup>**: measures properties of the variation in the dependent variable that is explained by the independent variable R<sup>2</sup> is formally used to measure the goodness of fit of the model.

b) **F Ratio**: this enables the test for the over all significance of the regression model.

c) **T statistic:** these tests the statistical significance of the parameter estimates of the regression.

### 3.2.2 ECONOMETRIC TEST

a) **Test for Normality:** This shows whether the residual of the model is normally distributed.

b) **Test for multicollinearity:** This is a situation where the explanatory variable are rightly interconnected and is referred to as multicollinearity when the explanatory variable are rightly correlated it becomes difficult to distinguish the separate effects of each of them on the dependent variable hence this test enables us to test for linear correlation among the explanatory variables.

c) **Test for auto Correlation:**

Auto correlation refers to a correlation between members of series of observation ordered in time. The classical linear regression model assumes that such auto correlation does not exist in the distribution.

d) **Test for Heterosecdasticity:** One of the basic assumptions of classical linear regression model is that the disturbance appearing in the population regression function is homosecdastic, that is, they have the same variance.

### **3.3 JUSTIFICATION OF THE MODEL**

We use OLS because of the fact that it is best suited for testing specific hypothesis about the nature of economic relationship. The OLS is simple and easy to interpret and above all, it is more reliable because of the properties which it possesses (efficiency, consistency, and un-biasness).

### **3.4 DATA REQUIRED AND SOURCES**

To carry out this research, the data required for this study are Nigeria industrial development bank disbursement, the industrial output, inflation rate, investment and Gross Domestic Product. The data is ranging from 1980 – 2010.

The data were extracted from the National Bureau of Statistics (NBS) Enugu and the Central Bank of Nigeria (CBN) statistical bulletin and journals.

### **3.5 ECONOMIC SOFTWARE PACKAGE**

The study will make use of PC Give 8.00 econometric package.

## CHAPTER FOUR

### 4.0 PRESENTATION AND ANALYSIS OF RESULT

#### 4.1 PRESENTATION OF REGRESSION RESULT

The result obtained from the Ordinary Least Square (OLS) model that was specified in the previous chapter is presented below:

Variable	Coefficient	Std. Error	t- value	t- prob	Partry
Constant	-4.4976	6.9211	-0.650	0.5215	0.0160
BOID	103.24	45.200	2.284	0.0308	0.1671
INF	-9579.1	13771	-0.696	0.4928	0.0183
INV	2.0502	0.57517	3.564	0.0014	0.3283
GDP	0.037698	0.069583	0.5926	0.5926	0.0112

$$R^2 = 0.84891, F(4, 25) = 36.521, DW = 0.857$$

## 4.2 RESULT INTERPRETATION

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

The intercept is -4.4976 meaning that when all the independent variables are held constant, industrial output (INDO) will be -4.4976.

The coefficient of BOID (Bank of Industry Disbursement) is 103.24. This shows that BOID has a positive relationship with industrial output and that a unit increase in bank of industry disbursement will increase investment by 103.24.

Inflation (INF) has its coefficient as -9579.1. This also indicates a negative relationship between inflation and industrial output. It indicates that a unit increase in inflation will decrease industrial output by 9579.1.

Investment (INV) has a positive with relationship industrial output. It shows that a unit increase in investment will increase industrial output by 2.0502.

GDP has as its coefficient 0.037698 this indicates a positive link between GDP and industrial output and that a unit increase in GDP will increase industrial output by 0.037698.

#### 4.2.1 EVALUATION BASED ON ECONOMIC APRIORI TEST.

This test is carried out to test if the parameters conform to what economic theories in terms of signs and magnitude. The test is summarized as thus:

Variable	Expected sign	Obtained Sign	Conclusion
BOID	Positive (+)	Positive (+)	Conforms
INF	Negative(-)	Negative (-)	Conforms
INV	Positive (+)	Positive (+)	Conforms
GDP	Positive (+)	Positive (+)	Conforms

#### 4.2.2 STATISTICAL TEST

a) **The coefficient of Determination ( $R^2$ ):** From the result,  $R^2$  is 0.84891. This means that the explanatory variables explain the variation in industrial output to the tune 85%. In other words, 85% of the changes in industrial output can be accounted for by the explanatory variables.

b) **Student T-test**

This is the test of the individual significance of the explanatory variables. The test follows t-distribution with  $n - k$  degree of freedom. It is carried out under the following hypothesis.

$H_0: \beta_1 = 0$  (The parameters are not significant)

$H_1: \beta_1 \neq 0$  (The parameters are significant)

At  $\alpha = 0.05$  (0.05 significance level)

The decision rule is to reject  $H_0$  if  $t$ -calculated  $>$   $t$  tab. From the table,  $t$  tab

$$= t_{\frac{n-k}{0.025}} = t_{\frac{25}{0.025}} = 2.056$$

The t-test is therefore summarized as follows:

Variable	t- value	t- table	Conclusion
BOID	2.284	$\pm 2.056$	Significant
INF	-0.696	$\pm 2.056$	Not significant
INV	3.564	$\pm 2.056$	Significant
GDP	0.542	$\pm 2.056$	Not significant

### c) F- Test

The F- test is a test of the overall significance of the entire model. It follows f- distribution with  $k-1$  degrees of freedom in the numerator and  $n-k$  degrees of freedom in the dominator. The test hypothesis is stated thus:

$H_0: \beta_0 = \beta_1 = \beta_2 = \beta_3 = \beta_4 = 0$  (The model is not significant)

$H_1: \beta_0 \neq \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq 0$  (The model is significant)

The decision rule is to reject  $H_0$  if  $f_{cal} > f_{tab}$ . From the regression result,  $f_{cal} = 36.521$  while the table value,  $f_{0.05}(4,26) = 2.7426$ .

We therefore reject  $H_0$  since  $f_{cal} > f_{tab}$  and conclude that the model is significant.

### 4.2.3 ECONOMETRIC TEST

#### a) TEST FOR NORMALITY

This test is carried out to ascertain whether the error term follows a normal distribution. The test follows Chi-square distribution on with 2 degrees of freedom. The test hypothesis:

$H_0: \mu_i = 0$  (The error term is normally distributed)

$H_1: \mu_i \neq 0$  (The error term is not normally distributed)

$\alpha = 0.05$  (0.05 level of significance)

The decision rule is to reject  $H_0$  if  $X^2_{cal} > X^2_{tab}$  from the result  $X^2_{cal} = 7.7929$  while the table value,  $X^2_{tab} = 5.991$  we therefore reject  $H_0$  and conclude that the error term is not normally distributed.

**b) Test for Multicollinearity:** This test is carried out to check if the variables included in the model are interconnected. Multicollinearity is conducted using the correlation matrix and if the correlation coefficient is greater than 0.8, then we say that there is multicollinearity between the two variables.

The correlation matrix is given below:

### **CORRELATION MATRIX**

	<b>BOID</b>	<b>INF</b>	<b>INV</b>	<b>GDP</b>
<b>BOID</b>	<b>1.000</b>			
<b>INF</b>	<b>-0.2449</b>	<b>1.000</b>		
<b>INV</b>	<b>0.6463</b>	<b>-0.2651</b>	<b>1.000</b>	
<b>GDP</b>	<b>0.6424</b>	<b>-0.2829</b>	<b>0.9028</b>	<b>1.000</b>

**Conclusion:** From the correlation matrix above, we observe that there is multicollinearity between GDP & INV only.

**c) Test for Auto Correlation:**

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:

Null hypothesis	Decision	If
No positive auto correlation	Reject	$0 < d < d_l$
No positive auto correlation	No decision	$d_l < d < d_u$
No negative auto correlation	Reject	$4 - d_l < d < 4$
No negative auto correlation	No decision	$4 - d_u < d < 4 - d_l$
No auto correlation, positive or negative	Do not reject	$d_u < d < 4 - d_l$

Where  $d_l$  = Lower limit

$d_u$  = Upper limit

$d$  = Durbin Watson (Calculated)

From the Durbin Watson table  $d_l = 1.160$  and  $d_u = 1.735$  while the calculated Durbin Watson ( $d$ ) from the result is 0.857. It therefore follows that  $d$  falls within the range  $0 < d < d_l$ . We therefore accept the null hypothesis of no

positive or negative auto correlation and conclude that there is no positive or negative auto correlation of first order.

**d) Test for Heteroscedasticity:**

This test is carried out to test the level of distribution of the error term. That is, to know if the variance is constant.

**Test Hypothesis**

$H_0$ : Homoscedasticity (The variance is constant)

$H_1$ : Heteroscedasticity (The variance is not constant)

$\alpha = 0.05$  (0.05 level of significance)

The decision rule is to reject  $H_0$  if  $X^2 \text{ cal} > X^2 \text{ tab}$  from the result  $X^2 \text{ cal}(8) = 26.798$  while the table value,  $X^2 \text{ tab}(8) = 15.507$ . Since  $X^2 \text{ cal} > X^2 \text{ tab}$ , we reject the null hypothesis and conclude that the variance of the error term is not constant.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 SUMMARY OF THE FINDINGS**

The course of this research is geared towards verifying the effect of the Bnak of Industry in Nigerian Economic Growth and development. This covers a period of about thirty one years (1980-2010).

The bank has made many decisions that effect development in the country, during this period, it decides how much to lend, thereby influencing that amount of inventible financial resources in circulation and also at the disposal of investors. This goes to affirm that the bank's decision has much influence on the economy in general and the industrial sector in particular and economic growth development in general.

During the course of this study, we found that the sanctions and disbursements of funds are directed to sub-sectored operation which covers the various manufacturing sub-sectors like textiles, food, metal products and non-metallic mineral products. Moreover, several hotels of international standard are also financed to boost tourism in Nigeria.

The participation in investment projects of BOI during the period under study was highest in beverages with cumulative sanctions of ₦ 98.38 million, while the least attention was given a chemical product with ₦=23.5 million as cumulative sanctions. Findings had also revealed that the investment undertaking by the bank in the sub-sectored sphere changes from time to time are tailored towards the prevailing economic circumstances operation in the economy. In previous chapter, it has been demonstrated that the beneficiaries of BOI loan equity investments are mainly investors. This goes to establish one of the hypothesis which states that there is a clear inflection BOI continued determination to pursue the federal government policy of indigenization is on local.

Recently, the trend of BOI's investment is on local resources based products which would yield high economic rate of return. This new dimension of emphasis in operation is to accelerate the nation's effort towards self-efficiency in the industrial sector in particular and in the whole economy in general. The focus on the establishment of local resources based is meant to reduce importation of some commodities.

Financial constraint on the part of the bank has to a great extent constituted a set back to achieving an equilibrated position between sanctions and disbursement. Although there has been an increase in the resource of the bank over time through

domestic and foreign sources but this increase is not yet sufficient to meet the increasingly high demand of BOI development assistance. This accounts perhaps for the moderate amount of sanctions and disbursements. The activities of the BOI have been examined in line with its function vis-visa the economic development of Nigeria. The activities of the bank as a development financial institution ought to have been felt greatly in the economy if the following bottleneck has not hampered its effectiveness.

The BOI has the problems of inadequate skilled and inexperienced manpower to handle its investment activities. With the increasing operation of the Bank which has necessitated opening up to five areas of administration throughout the country, the need for competent experienced personnel is equally inevitable. But this requirement has not been met. The cause of this adequacy could be attributed to the fact that so many universities in Nigeria today not offer Banking and Finance as a course of study. The impact of the graduate turned out from these institutions could be felt because of the rapid rate of expansion in the banking industry and increasing demand of BOI's services by investors, as showed by the significant nature of the disbursements.

## 5.2 CONCLUSION

Based on the conclusion, industrial financial organization has undergone a structural transformation during the last three decades in most developing countries. In this regards, industrial development bank have emerged as catalytic agents of industrial development and economic growth.

Additionally, from the research carried out, one could rightly conclude that BOI has been acting as an ingredient in industrial development in Nigeria. It was however found that:

- a. A high degree of default rate by client has characterized the activities of the bank.
- b. The disbursements of the bank were below the sanctions.

Broking from the data available and studying from it, we would say that the performance of the banks during the period is not very satisfactory, at least in the areas of meeting its loan demand and recycling of loan able funds. It should however be noted that the bank operated amidst problems mentioned earlier. A critical look at the activities of the BOI shows that it is very wary of risk bearing. Its average contributions to long term loans have not been highly impressive.

### 5.3 RECOMMENDATIONS

Based on the data collected, the heavy reliance on funds from the federal government indicates that the bank is still in its developmental stage. The NACB does not participate in equity ownership of agricultural enterprise except those public sectors which the federal government specifically directs it to do so. Farmers find it almost impossible to offer what the bank refers as adequate security. However, the bank has designed a scheme of on lending to the small scale farmers. But the effectiveness of this scheme is yet to be determined.

Despite those limitations however, the bank made some impact in the industrial and agricultural development of the country. The NACB unlike BOI right from its inception adopted a strategy to avoid being subjected to the government control.

It is also said that the successful operation of a development requires policies that support the bank activities as well as the right attitude to investment financed by the bank on part of the client.

Based on performance evaluation of this study, I recommend that:

- i. There should be an increase in the capital base of the bank to improve funds available for assistance for clients.

- ii. The bank should create or make provision for savings and acceptance of deposits for the investors, this will apart from promoting capital formation, and avail them of the opportunity of making more invisible funds.

Thus, reduction in the import bills, conservation of foreign exchange and creation of employment opportunities for the fast growing population of the country which has shut-up to high heavens in the recent time. Fluctuative trend that is apparent in the Bank's investment pattern shows that BOI is functioning in accordance with its aligned role. We will recall that BOI as one of its function, finances project which are economically desirable (They should show promises of raising living standard, providing employment). Furthermore, such project should be commercially viable in other words, they should be capable of making a satisfactory profit, taking into account the cost of production and sales proceeds, the surplus being sufficient to repay loans to build up reserves and pay reasonable dividends. Empirical finding also pointed out that although the industrial sector contributes to the Gross Domestic Product (G.D.P) of Nigeria yet the banks support for this sector in terms of loan and equity participation is quite minimal.

In addition, federal government's action to reduce public expenditure in the 80's as a result of decline in the oil revenue which was the major source of government revenue aggravated the situation.

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