

**DEPOSIT MONEY BANKS ACTIVITIES AND INDUSTRIAL  
DEVELOPMENT IN NIGERIA**

**BY**

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**A PROJECT WRITTEN AND SUBMITTED TO THE DEPARTMENT OF  
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PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD  
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FINANCE OF THE UNIVERSITY OF BENIN,  
BENIN CITY**

**NOVEMBER, 2023**

## **DECLARATION**

I, **ADUWA SANDRA OSASUMWEN**, do hereby declare that this project is entirely my work and composition. The work embodied in this project has not been submitted by another candidate for any degree and is not currently being submitted for any other degree. All references made to the works of other persons have been duly acknowledged.

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**Aduwa Sandra Osasumwen**

## **CERTIFICATION**

We, the undersigned certify that this research work was submitted by **ADUWA SANDRA OSASUMWEN** and it is hereby approved for the partial fulfillment for the requirement for the award of Bachelor of Science (B.Sc) degree in Banking and Finance, University of Benin, Benin City.

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## **DEDICATION**

This project is dedicated to God Almighty, the One who was, who is and who is to come, my only source of strength and inspiration during the course of my stay in UNIBEN. He made it possible for me to have accomplished this task. Therefore, all glory, honour, praises and adoration are ascribed to His Holy Name forever and ever, AMEN.

## ACKNOWLEDGEMENT

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## **ABSTRACT**

*The study examines the impact of deposit money banks activities on industrial development in Nigeria. The study was embarked upon given the vital role played by the deposit money banks in the growth and development process of developing countries, like Nigeria where the banking sector is the main pillar of financial system. In specific terms, it examines the impact of: credit to the private sector (CRP), interest on loans and advances (ILA), bank lending rate (BL) and inflation rate (INF) on industrial development (INDO). The regressant, industrial development which is proxy by industrial output (INDO), was regressed on the regressors – credit to the private sector (CRP), interest on loans and advances (ILA), bank lending rate (BL) and inflation rate (INF). Using EViews 9.0 econometric package, the ordinary least squares (OLS) regression equation for a time series data of 41-years range, 1981 to 2021. Overall, the study's findings appear to provide evidence that credit to private sector is a critical factor influencing industrial sector development in Nigeria, whereas interest on loans and advances, bank lending rate and inflation rate were found not to be critical factors influencing the development of Nigeria's industrial sector. Based on the findings, the study recommends that the managers of industries should continue to take advantage of bank loans and other debt instruments in order to boost their performance significantly. In addition, industrialists should depend more on local sources of raw materials in order to reduce their foreign exchange cost. Also, inflation rate targeting policy to ensure that the level of inflation remains within acceptable and productive level should be sustained.*

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1. Background of the Study**

Industrial development for over a century has been the main objective of both developed and the developing nations of the world. However, development process will require deliberate investment in both human and material resource to achieve this objective. As such, development is economic growth that comes with changes in output re-distribution and economic structure. The process of industrial development focuses on quality improvements, the introduction of new goods and services, risk moderation and the changes in inventions and industrial leadership.

Therefore, the banking sector is vital for the financing of these investments and production through its basic activities performed by banks; one is deposit-taking through the mobilization of idle funds in the hands of customers thereby offering them interest on amount saved and the other is lending activities, from here, the bank earns interest on funds borrowed for personal and business investment (Mgbodile 2005).

In literature, a vibrant and sound banking sector has been identified, as a vital catalyst driving the growth rate of an economy. Globally, the banking sector is seen as the livewire of any economy and as such determines the financial health of such an economy. In fact, the activities of Deposit Money Banks (DMBs) and specialized (development) banks play vital role in financing industrial development. Moreover, the level of intermediation in banking sector ultimately increases the growth rates of an economy.

Economic growth theory affirms that financial institutions especially DMBs are necessary drivers of the productive capacity of the economy as well as provider of internal financial resources during the birth stages of economic/industrial growth of a country.

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Thus, part of the functions of DBMs included but not limited to; mobilization of deposits from customers, funding of real economic/industrial activities through loan provisions, trade financing etc. Therefore, they serve as an important channel that connects both savers and investors in an economy.

Banks observe the principle of good lending and according to Obsaikene (2011) principle of good lending simply refers to the precept or guidelines adopted in the banking industry to guide losses and ensure that anticipated interest and profits are made.

Consequently, it is relevant that we explicably demonstrate how the role of banks can be in working to the development of these industries since the financial and banking institutions are concerned with the improvement of the economy because their future depends on economic development and the increasing prosperity of the citizens (Orjih, 2011).

Industrial financing organizations have been subjected to a structural transformation during the last three decades in most of the developing countries and Nigeria like any other nations has witnessed dramatic changes in its industrial landscape. These changes are largely due to the efforts of the government to convert the economy from agricultural to an industrialized one (Nwankwo, 2009). In the process of transformation, industrial development banks have appeared as catalytic agent of industrial and economic growth. The aim of this work is to examine deposit money banks activities and industrial development in Nigeria. Industrialization to the government is regarded as a sine qua non for national effort to achieve the degree of self reliance and confidence which are required to maintain the stability that is necessary for social place at

home and equally master the respectability which will serves as an essential component for meaningful involvement in international affairs and interactions.

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Some traditional writers like Lewis and Rostow (1998) have proposed that industrialization is the engine that projects the development process of an economy. This proposition was obtained from a general view of the historical experience of the present day developed countries whose development took the forms of an industrial revolution with several arguments could be advanced in favor of industrialization. This is more likely to bring about change in attitudes, technical progress and structural transformation which development was certain to entail the level of productivity related with any other sector.

According to Adeyemi and Badmus (2008), the scarcity of finance is a critical limiting factor in industrial growth and the fulfillment of entrepreneurs dream. Realization of the fact that industrialization is required for a successive government, rapid economic improvement in Nigeria map out many policies and sometimes reversing earlier ones to facilitates industrialization. The pathway towards industrialization in Nigeria has not be easy because of the discrepancy in resources endowment of the economic units and the low level of investment in the economy, (Ekpenyong and Nyong, 2005). While some unit has resources past their immediate needs, others might likely have need for resources beyond what they can currently generate. Pass and Pike (2003) are of the opinion that the level of investment in an economy is one of the major components in ascertaining its future productive capacity and finally the growth in the real living standards of its people.

The continuous dwindling naira value relative to other currencies and the high inflation rate has also affects the bank ability to grant credit. This is so, as the real value of money keeps falling

thereby making the banking public to save less, the effect of this being the reduction in the volume of deposits and the loanable funds. This study therefore, seeks to examine the effect of deposit money banks activities on the development of the Nigeria economy.

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#### **1.2. Statement of the Research Problem**

Barro (1991) in his early works of econometric research into credit extension by financial institutions and industrial development made use of cross-country regressions using real average GDP as the dependent variable for a particular time, while various measures of the financial sector development combined with several control variables were used as independent variables. In carrying out his research he did not test, neither did he combine variables of financial intermediation.

With the issue of endogeneity taken into consideration by King and Levine (1997) in another subsequent study adopted legal measures as instrumental variables in removing the exogenous part of banking development. The outcome of his study proved that intermediation from loans advanced by deposit money banks and other deposit-taking institutions had a significant relationship with industrial development in the long run.

In supporting the theory of financial intermediation and industrial development, Odedokun (1996) used a different approach in his study of these hypotheses by using time regression analysis; his work examined 71 countries using a different time range, from 1960 to 1980. His findings revealed that financial intermediation roughly accounts for eighty-five percent of the growth of the nations. He also discovered that the degree of industrial development of each of the nations examined was dependent on the level of financial intermediation of the countries and regions examined.

In another related but different research, Christopoulos and Tsionas (2004) examined data from ten emerging nations from 1970 to 2000. The outcome of their research which engaged a sample of ten developing countries, indicated that long run causality exist between financial intermediation and industrial development but that there is no evidence of bi-directional causality.

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However, they did not find any short-run causality between financial intermediation and industrial development. They however posited that government regulation when it is geared towards achieving a better financial sector will influence growth at slower rate in the short run but will lead to economic and industrial development in the long run.

However, Fink, Haiss and Mantler (2005) in their research outcome with respect to time frame discovered a significant relationship with financial intermediation and industrial development in eleven emerging countries from 1990 to 2001. The study discovered that development was stimulated via the productive sectors in these emerging nations. The study further pointed out that development in the financial sector would only influence short-run growth in the economy instead of a long-run growth. The study used loan advances from banks, securities market capitalization and balance of debt instruments divided by Gross Domestic Product.

In another study which sampled Middle Eastern countries by Barakat and Waller (2010), they came out with a result consistent with the hypotheses that a well-functioning banking system is vital in enhancing industrial development in an economy. Using findings of the recent World Bank Enterprise Survey to provide further evidence on the relationship between financial development and industrial development, by incorporating the impact of internal finance, Ghimire and Giorgioni (2013) in their study found a positive impact of banks financing on the long term growth.

That finance does not cause development is found in the research of De Gregorio and Guidotti (1995) and Demetriades and Hussein (1996) respectively. In researching the impact of finance on industrial development, De Gregorio and Guidotti (1995) carried out a study on 98 different nations using lending to private sector as the independent variable from the period 1960 to 1985. Their findings was that not all the development in the observed countries were stimulated by finance as various factors like time periods, regions, and the amount of income were major influence in development.

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They opined that it is the efficiency and not volume of financial investment in the financial intermediation process that influences growth and development. In quite a few countries, they discovered a negative correlation between growth and credit extension by financial intermediaries due to financial liberalization in the early 1970s and 1980s and the lack of effective regulation. They therefore conclude that finance stimulates development cannot be universally applied to all countries.

The most critical opinion on the relevance of financial intermediation stimulating industrial development is formalized in the works of Shan (2005) and Zang and Kim (2007) using time-series, two-panel analysis and cross sectional analysis in their studies of both 11 developed and 12 emerging economies spanning across a period of 1985 to 1998. Their result evidenced little and negative correlation between financial intermediation and industrial growth and development respectively.

Hicks posited that financial sector drives industrial growth and development. This is called supply leading, because DMBs provide liquid funds to support industrial activities leading to industrial development. On the other side of the debate, some researchers believe that industrial development leads to financial growth and development.

While it is the position of economist and finance experts that the Nigerian deposit money bank has not played its intermediation role efficiently in the case of lending to Small and Medium Scale Enterprises (SMEs) which to a large extent constitute the drivers of the development process, nevertheless the low saving rate and high cost of borrowing justifies this signify inefficiencies.

Thus given the controversy on the certainty that empiricists are yet to come to a united agreement as to whether deposit money banks activities are vital driver of industrial development or not. This therefore calls for further examination and explanation.

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Sequel to the above, this study is conceived to increase the frontiers of knowledge by providing empirical evidence on the effect of deposit money banks activities on industrial development in Nigeria from the period of 1981 to 2022.

### **1.3. Research Questions**

Based on the foregoing, the overriding research question for this study is; what is the relationship between deposit money banks activities and industrial development in Nigeria? The specific research questions include;

- i. What is the effect of credit to private sector on industrial development in Nigeria?
- ii. How does interest on loan and advances affect industrial development in Nigeria?

### **1.4. Objective of the Study**

The general objective of this study is to empirically investigate the relationship between deposit money banks activities and industrial development in Nigeria. However, the specific objectives include to;

- i. Determine the extent to which credit to private sector affect industrial development in Nigeria;
- ii. Ascertain the extent to which interest on loan and advances affect industrial development in Nigeria.

## **1.5. Research Hypotheses**

The hypotheses for this study will be stated in null form. They includes;

- i. Credit to private sector has no significantly effect on industrial output in Nigeria.
- ii. Interest on loan and advances has no significant effect on industrial output in Nigeria.

## **1.6. Significance of the Study**

The significance of this study will undoubtedly be highly relevant to the Academic society and

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also to the industrial development of this country through deposit money banks since the study is focused on its activities. The study will help the management to realize the problems which are faced by industrialist in Nigeria in getting funds and also design how best to assist in circumstances like this.

It will create a great awareness of deposit money banks activities in the development of the economy and help to show its essential effect on the economy for all the economic units, industrial business organizations etc. It will also help to identify with and evaluate the acceptability of the activities been offered by deposit money banks in order to ascertain the adequacy of the industrialization of Nigeria. Finally this study will serve as a guide and reference material to other researchers who intend to work in relation with this topic.

## **1.7. Scope of the Study**

The subject matter of this study deals with the relationship between deposit money banks activities and industrial development in the Nigeria economy. The time frame for this study will range between 1981 and 2022 inclusive.

## **1.8. Limitations of the Study**

The limitations encountered by the researcher in the course of this study are as follows. First is time constraint. A research of this nature should have taken considerable time, but because of the limited time frame, the researcher did her best to produce a good research work under the time frame given.

Lastly, the factor which limits this study is finance.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1. INTRODUCTION**

This chapter shall review diverse concepts in relation to deposit money banks activities and industrial development in Nigeria. Also it shall examine the theoretical framework, and also review extant empirical studies in relation to the subject matter.

#### **2.2. CONCEPTUAL REVIEW**

##### **2.2.1. Concept of Industrial Development**

The term industrial development literally means the development of land and buildings for the manufacturing, processing, bulk storage, warehousing, servicing and repair activities of goods, articles or substance of any kind. Is the building and growing of industries within an economy by making use of new technologies which make jobs faster, easier and better and lead to an increase in a business output and an increase in profits. Industrial development unleashes dynamic and

competitive economic performance which gives rise to income and employment, facilitates international trade and increases resource efficiency, and is therefore a major driver of poverty alleviation and shared prosperity (Amoah & Jehu, 2022).

Although industrialization contributes to the universal objective of economic growth but its impact differs depending on the country's stage of development. In developed economies, industrial development is considered in attaining greater productivity, welcoming new technologies, intelligent production processes and decreasing the outcome of industrial production on the

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environment. While for that of developing economies, industrialization entails structural transformation of the economy from traditional sectors like agriculture and fishery to modern manufacturing industries charged by innovation and technology. Such expansion of the manufacturing sector create jobs, helps improve income and thus reduces poverty, establishes and aids new technologies and also produces essential goods and services for the market.

Emerging markets and other industrialized societies have all proved that industrialization is sine qua non for economic improvement, long-term poverty reduction, job creation, and transformation of a traditional and agrarian society to a modern and industrial society (Downes, 2004; Imhonopi, 2004). Industrial development is central to the process of structural transformation which characterizes economic development. According to Kniivila (2007), industrial development is responsible for the economic growth of many countries.

According to Imhonopi and Urim (2013), industrial development signifies the progress made in the expansion of the economy and commercial activities in a country through massive industrial production of goods and services.

It includes the transformation of raw materials into consumer goods, new capital goods which permit the production of more consumer goods and social overhead capital, which together with human resources, provide new services to both individuals and businesses.

Arrey (2013), industrialization is a process that engages human and mechanical resources in the transformation of raw materials for immediate consumption or for further production and leads to the heavy dependence on mass production of goods and services manufactured within the territory of a country. Thus, industrial development is focused on the use of technology and science in fostering a country's capacity to transform raw materials into finished goods or manufacture intermediate and capital goods for consumption or for further production. Mobarak (2001) pitches

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industrial development within two grooves: first is the establishment of new technologically competitive industries, and the second is the expansion and renovation of existing industries to increase their productivity. He defines industrial development as the mainstay for establishing a country's production base and maximizing the export capabilities of the national economy. He argues that this is why industrial development enjoys top priority in orchestrating a competitive economy in the face of international variables and economic groupings of industrialized states.

Imhonopi and Urim (2013) opined that industrial development is an important mode of production in modern society and is the process that provides livelihoods for millions of people all over the world because it creates a massive pool of employment opportunities for citizens. They also contend that the level of industrial development is what pigeonholes countries into developed, underdeveloped or emerging economies. Without gainsaying the fact, Nigeria possesses the ingredients that it requires to become a leading industrial economy in the global market and supported by its massive population of close to 180 million people, its domestic market swarms with a ready army of consumers for its industrial goods and services.

Onyeonuru (2005) has identified the elements of industrialization in an economy to include the availability of technologies with capacity for large scale production, existence of a wide range of raw materials used for production purposes, abundance of complex technical division of labour supporting production, presence of a complex cooperation and coordination of specialized tasks aiding production, and the availability of relevant industrial skills within a country's workforce.

The industrial sector is a leading sector in many respects in advanced economies. It plays a catalytic role crucial for economic transformation and has ability to drive productivity, growth, innovation and trade. In 2018, the industry sector was the second largest contributor to GDP in

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Nigeria. The sector contributed 25.75 percent to the GDP ahead of agriculture sector's 21.24 percent and below Service Sector's 52.01 percent (Plecher, 2020). The manufacturing subsector of the industrial sector is a major driver of import substitution which enhances exportations, foreign exchange earnings, employment creation, consumption patterns and standards of living.

### **2.2.2. Concept of Deposit Money Banks Activities**

Traditionally, Deposit Money Banks (DMB) is short and medium-term lenders. But in the recent decades they have expanded this role to include the extension of long-term credits especially through loan syndication (Tawose, 2018). Banks' functions vary across countries and institutions. For example, specialized banks are known to have been created to deal specifically with certain problems of industrial development.

In 2010, universal banking was scrapped by CBN which necessitated the re-introduction of merchant banks, deposit money banks and specialized banks like microfinance banks, development banks, non-interest banks, and mortgage banks. Deposit money banks are licensed institutions with banking activities across region, nation and international community's while

banking activities relegated to region or nation only are carried out by non-interest banks authorization by the CBN issues overtime. Example of other banks includes; Bank of Agriculture (BOA) and the Bank of Industry (BOI) etc.

Deposit money banks play an important function in the development and growth of a country. The principal activities carried out by deposit money banks is to ensure there is adequate flow of money to service the deficit sectors of the economy and facilitate the movement of funds amongst economic units. This movement is referred to as financial intermediation which is usually from units of surplus to units of deficits/needs (Ufot, 2004). Supply of finance can slow economic and industrial development if it is repressed or stimulate it if it is liberalized.

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Banks are always required to prepare a comprehensive credit policy duly approved by their Board of Directors which should, inter alia cover loan administration, disbursement and appropriate monitoring mechanism etc. The policy should be reviewed at least every three years (CBN, 2010). The credit policies are important to banks because they help mitigate risk, sets out procedures for determining acceptable risk to onboard, and define procedures in dealing with credit relationship. Banks credit are total amount of loans (advances) granted by the banking sector (CBN, 2003). Most bank credit in developing economies like Nigeria is accompanied with collateral that enforces repayment so as to avoid default.

Business loans and advances reflect bank credits to the industrial sector. According to Sanusi (2009), financial assistance granted to organization or firms in need of financial resources for business enhancement if called business loan.

The deposit money banks are said to discriminate against Nigeria companies and also conservation in their lending policies. They have deliberately attempted to be avoiding participation in the development process by financing industries especially the manufacturing

industry. This is as a result of the fact that they normally lend out on short term basis no longer than one year. The loans are however repayable on demand at short time notice (Ajayi, Ademola & Kolawole, 2022).

The deposit money banks aim mainly at making large profit and within a short period and that is the reason they do not usually lend to individual who embark on long term projects since the amount to medium and long term projects are in small percentage. They often favour that sector of the economy where returns are made less than one year to enable the individuals to repay the loans. Moreover, these market measures is based on its interest rate structure which is often used by deposit money banks to discriminate between companies of various grades risks such that the more risky it is, the more the interest rate. Nigeria rate has remained generally low when compare with other industrial countries like U.K and USA.

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The low interest rate is charged by development bank which has made it difficult for them to operate in the capital market because of their lending rates which are considerable below market rates. The low lending rate of these banks arose because they obtain chap (customer) money from the federal government to subsidize their lending activities (Ibrahim, 2022).

When interest rates are kept artificially low, both mobilization and allocation of saving are usually hindered and credit has to be rational. In this process, the smaller indigenous enterprise generally gets pushed to the end and their opportunities for growth are this constrained.

Furthermore, the lower interest rates have be prone to attack safe and easy short term business to the local commercial banks who are often eager to accept them rather than get in valued in more risky medium and longer term financing (Ogunbiyi, 2014).

#### **2.2.3. Measures of Deposit Money Banks Activities**

The activities of deposit money banks can be breakdown into two components, credit to private sector and interest on loan and advances.

### **Credit to Private Sector**

World Bank (2009) observed that credit to the private sector is the most comprehensive indicator of the activities of the DMBs which is estimated as the amount of domestic credit allocated to the private sector by the banking sector divided by GDP. It shows the degree to which the banking sector finance real economic/industrial activities and more specifically the extent to which DMBs finance private investments and business investments in a country.

Therefore, the indicator shows the capacity of the deposit money bank activity as well as its impact on private sector investments in the aggregate economy. Bank credit extended to the organize

private sector includes funds that represent a claim for repayment which include loans, purchased of fixed-income securities, trade credits and other accounts receivables hence this domestic credits excludes credit extended to government and public enterprises (Beck and Levine, 2004).

This indicator is however expected to positively impact on industrial development.

Becks, Levin, Loayza (2008) noted that bank credit to the private sector determines the pace of industrialization thereby promoting economic growth in the long-run. In Nigeria, deposit money banks tends to lend more to the private sector compared to public sector which is expected to spur economic and industrial well-being of the citizens, it is really baffling that such is not the case as against the expected connection between bank lending and industrial development.

Credit to private sector is decomposed into two categories; short-term credit that has contractual maturity of one year or less and long-term credit that has contractual maturity longer than one

year. Some countries, most notably many of the transition economies, provide more detailed data on credit maturity up to one year, one to five years and longer than 5 years. Some countries report maturity longer than 7 or even 15 years.

### **Interest on Loan and Advances**

Lending in its simplest form is temporary given money to somebody with the intent that it will be repaid within a stipulated period of time. In the banking industry, lending of money/loan attracts some fee called interest.

Deposit money banks are business organizations established to carry out banking operation and maximize return to their shareholders.

Banks not only grant loans and advances to customers just to fulfill their operational function but to make profit. This profit can only be earned through the interest charged on loans and advances to customers.

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The interest charged by banks on loans are normally arrived at by taking into account the prevalent market rate as well as the monetary policy rate of the Central Bank of Nigeria (CBN). The interest rate of banks are usually higher than the monetary policy rate of the apex bank and incorporated with other charges such as administrative fee, handling/processing fee etc. as determined by the banks from time to time. Lending is one of the main activities of deposit money banks and other financial institutions in Nigeria as evident by the size of loans that form banks' assets and the annual substantial increase in the amount of credit granted to borrowers in the country (Akujuobi & Nwezeaku, 2015). The loan and advances from deposit money banks to the economy/industry have been on the rise since the introduction of Structural Adjustment Programme (SAP) in 1986. Timsina (2014) argues that bank lending has significant role in industrial development as it caters resource needed for growth. Aurangzeb (2012) has established

that loans and advances have significant positive impact on industrial development. Beneficiaries of bank lending, mostly individuals, have boosted domestic consumption above internal production capacity and prices have followed an upward trend masked by a pseudo convergence process, not only for consumer goods and services or real estate assets, but mostly for labour costs (Moinescu & Cordilas, 2011).

#### **2.2.4. Bank Credit and Industrialization**

One of the identified problem of credit facilities for industrialists is its short term nature, which will not enable the borrower have enough time to recoup the funds invested on machines and equipment as to repay the loan as schedule balance. It will take him time to realize such big amount from his return or output and repay and so commercial banks are not normally interested in granting long term loans to agricultural sector (Valentine, 2014 & Adebayo, 2022).

Also, due to the fact that industrialists are sometimes dishonest in their declaration to banks when applying for advances, the diversion of funds to irrelevant projects are also defects on the aide of financial institutions generally and banks in particular (Barber, 2020 & Synder, 2022).

### **2.3. The Theoretical Review**

Deposit money banks activities contribute to economic growth and industrial development in several ways. For example, credit is an important link in money transmission; it finances production, consumption, and capital formation which in turn affect industrial development (Timsina, 2014). Theories and modeling have been improved in the investigation of the connection between deposit money banks activities and industrial development for both developing and developed countries.

#### **2.3.1. Endogenous Development Theory**

The endogenous development is focused on the proposition that deposit money banks activities have a positive impact on industrial development. For a country to achieve a desired level of industrial development, the financial system (bank) should be developed to mobilize the needed finance. A financial system that is well functioning would successfully harness savings from households and efficiently allocate same to deficit unit, diversify risk to ease liquidity flow, reduce transaction cost and information asymmetry, and bestow an opportunity to sourcing finance via retained earnings, savings from customers and efficiently allocate some to industrialists. The main argument of the endogenous development theory is that finance generates an external effect on aggregate investment efficiency, which offsets the decrease in the marginal product of capital (Daniel, 2020).

### **2.3.2. Neo-Classical Development Theory**

Following the Harrod Domar's model of industrial development, Robert Solow and Trevor Swan developed the neo-classical development model and subsequently nicknamed the "Solow Model".

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The theory emphasized that accumulation of capital is the engine for economic growth and industrial development. It also argues that technological changes have a major influence on an economy and industry and that industrial development cannot continue without technological advances (Caroline, 2020).

Mohd-Nor (2015) stated that Romer established a one-sector neoclassical model with technological change, observes that development is promoted, assisted by the technological change that arises from investment decisions made by profit-maximizing agent.

The fundamental result of the neo-classical development theory is that it is not possible to sustain long-term development without technological progress (Peter, 2021).

### **2.3.3. Loan Pricing Theory**

The loan pricing theory asserts the inability of banks to set high interest rate. For instance, high banks interest rates may induce adverse investment selection problems due to the narrowing of investment to only potential high-risks borrowers willing to accept it. High interest rate loans can instigate high risky projects/investment which can cause moral hazard behaviour of borrowers (Chodecai, 2004). Thus, the potential borrowers who are the most likely to default (adverse outcome) and create non-performing loans for the DMBs balance sheet are the most likely to be selected and granted credit because they aggressively pursue these loans with well packaged business plans and proposals likely to meet the credit policy criteria of the banks. Most of these loans when disbursed turn out to be bad credit risk (non-performing loan or toxic assets) due to the adverse selection process. Therefore, lenders may decide not to extend loan facilities (risk asset) even though they are overwhelm with viable business proposals in the marketplace to create good credit risks (Magaji, 2017). Asymmetrical information necessitates moral hazard which might dictate borrowers' activities into immoral engagements to meets requirement of loans (Ajayi, 1981).

### **2.3.4. Neo-Classical/Loanable Fund Theory of Interest Rate**

The neo-classical or the loanable fund theory of interest as presented by Wicksell (Swedish Economist) was later developed and supported by several leading economists like professor Robertson, bertil Ohlin, Lindhal and Myrdal. However, the theory in its present form is associated with Professor Robertson.

According to the theory, struggles between demand and supply of loanable funds influences the interest rate. In the markets, there are those who supply loanable funds and those who borrow them. Interest rate will be such as shall bring about equilibrium between the loanable funds' demand and supply. The loanable funds doctrine extends the classical theory, which determined

the interest rate solely by saving and investment, in that it adds bank credit. The term loanable funds includes all forms of credit such as loans, bonds, or saving deposits available for lending to individual or group of investors.

Bannock, Ron and Evans (1998) defined loanable funds as money available for lending to individuals, government and institutions in the financial markets. It is comprised of current savings of private individuals and firms, discharging and any increase in money supply made available by the actions of depository institutions, governments and monetary authorities in the financial markets. Thus as observed by Okwo, Mbajiaku and Ugwunta(2012), loanable funds represent a flow of money into the financial markets for loans of all kinds.

The theory of loanable funds by Dennis Robertson and Berlin Ohlin is applicable to the study of deposit money banks and industrial development because variables that are central to the theory namely interest rate, savings, banks credit and price level among other variables are all relevant in examining the effect of domestic credit on industrial development.

Bank loans represent important funds, which are available on payment of interest by the borrower.

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Since loanable funds theory is more comprehensive, it is often referred to as real as well as monetary theory of interest. This theory is just the one of the two general approaches that has been followed in developing the modern monetary theory of interest rate.

The loanable funds theory provides a link between deposit money bank credits and industrial output, because the theory buttresses that borrowing by business for investment is determined by the cost of credit (interest rate).

In line with the loan pricing theory, interest rate set by banks as cost of credit facility to customers should be equivalent with the risk appetite of the borrower. This will place the

financial institutions in a better position to perform its traditional function of financial intermediation. The attendant benefit of this is increased credits disbursement to all the productive sectors of the economy.

### **2.3.5. Finance Led Development Theory**

The finance led development theory is of the opinion that financial sector (DMB) activities are a major stimulus for industrial development. The activities of the financial sector will enable industrialists and government mobilize needed fund necessary to achieve growth and development (Akintola, 2020 & Guei, 2022).

Mohd-Nor (2015) acknowledged importance of well-functioning financial institutions in industrial development has been extensively discussed more than decades ago since earlier works by Bagehot (1873), Schumpeter (1911), Goldsmith (1969), McKinnon (1973) and Shaw (1973) despite contradictory contention from Robinson (1952) and Stern (1989) among others that deposit money banks activities is not a determinant of industrial development.

The finance led development theory was first developed and institutionalized in the studies of Goldsmith (1969), McKinnon (1973) and Shaw (1973) where they established the importance of financial markets in economic and industrial development.

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In their respective works, they looked at the stages of industrial development across a sample of countries and concluded that the level of financial services offered by financial intermediaries in these countries were responsible for the level of development in their economy.

Economists opposed to this theory believed that industrial development influences financial sector, that is, the rate of industrial development determines the level of participation that would be achieved in the financial system. However, the bulk of empirical works on finance-development nexus have upheld the significant impact of deposit money banks activities on industrial growth and development of the economy (Anyanwu, 2017).

## **2.4. The Empirical Review**

Akpansung and Babalola (2010) ascertained relationship between banking sector credit and industrial development in Nigeria over the period 1970-2008. The causal links between the pairs of variables of interest were established using Granger causality test while a Two-Stage Least Squares (TSLS) estimation technique was used for the regression models. The results of Granger causality test show evidence of unidirectional causal relationship from GDP to private sector credit (PSC) and from industrial production index (IND) to GDP. Estimated regression models indicate that private sector credit impacts positively on industrial development over the period of coverage in this study. However, lending (interest) rate impedes industrial development.

Obamuyi, Edun and Kayode (2011) investigated the effect of bank lending and industrial development on the manufacturing output in Nigeria. Times series data covering a period of 36 years (1973-2009) were employed and tested with the co-integration and vector error correction model (VECM) techniques. The findings of the study show that manufacturing capacity utilization and bank lending rates significantly affect manufacturing output in Nigeria.

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Aurangzeb (2012) evaluated the contributions of banking sector in industrial development from the period of 1981 to 2010. Regression results indicate that deposits, investment, advances, profitability and interest earnings have significant positive impact in industrial development. The Granger-Causality test confirms the bidirectional causal relationship of deposits, advances and profitability with economic growth.

The study by Okwo et al (2012) examined the effect of bank credit to private sector on industrial development in Nigeria using time series data obtained from Central Bank of Nigeria (CBN) statistical bulletin from 1981-2010. GDP in the model's equation was the dependent variable and

used as a proxy for economic growth. The explanatory variables include bank credit to private sector, inflation and interest rates. The study used Augmented Dickey Fuller test statistics to determine the order of integration of the variables. Ordinary Least Squares method was used to examine the effect of bank credit on economic growth. The regression results revealed a strong positive effect of bank credit to private sector on economic growth and this effect is statistically significant

Nwakanma, Nnamdi and Omojefe (2014) evaluate the nature of long-run relationship existing between bank credit to the private sector of Nigeria economy and the nation's economic and industrial development. Applying Autoregressive Distributed Lag Bound (ARDL) and Granger Causality techniques, the results indicate significant long-run relationship between the study variables but without significant causality in any direction.

Ojeaga, Odejimi and Okhiku (2014) determined the effect of bank lending on the development in Nigeria using a sample data from 1989 to 2012. With quantile regression estimation method, it was found that deposit money bank lending was having a negative effect on development while institutions were not significantly protecting customers from the negative effect that usually arise

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when banks liquidates. Central Bank policies were found to be minimizing bank losses and helping to drive economic and industrial development in general.

Emecheta and Ibe (2014) investigated the impact of bank credit on industrial growth in Nigeria applying the reduced form of vector autoregressive (VAR) technique using time series data from 1960 to 2011. Current gross domestic product (GDP) is the dependent variable and proxy for industrial growth while bank credit to the private sector (CPS) to GDP ratio and broad money (M2) to GDP ratio were proxies for financial indicator and financial depth respectively. A major

finding was that there is a significant positive relationship between bank credit to the private sector, broad money and industrial growth.

Timsina (2014) examined the impact of deposit money bank credit to the private sector on the industrial development. The study has applied Johansen co-integration approach and Error Correction Model using the time series data for the period of 1975 to 2013. The empirical results show that bank credit to the private sector has positive effects on the economic growth and industrial development only in the long run. Nevertheless, in the short run, it has been observed a feedback effect from industrial development to private sector credit.

Mamman and Hashim (2014) assessed the impact bank lending on industrial development in Nigeria for the period 1987 to 2012. This study depend completely on secondary data, and using multiple regression model, the study discovered that bank lending accounts for about 82.6% variation in industrial development in Nigeria for the period studied.

Marshal, Igbanibo and Onyekachi (2015) examined the impact of bank domestic credit on the industrial development of Nigeria using time series Nigeria data for the period of 1980 to 2013. Credit to private sector, credit to government sector and contingent liability were used as proxy for bank domestic credit while gross domestic product represents economic growth.

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The relative statistics of the estimated model shows that credit to the private sector (CPS) and Credit to the government sector (CGS) positively and significantly correlates with GDP in the short run. The analysis revealed the existence of poor long run relationship between bank domestic credit indicators and gross domestic product in Nigeria.

Tahir, Shehzadi, Ali and Ullah (2015) examined the interrelation between bank credit to private sector and industrial development. Secondary data were collected from World Bank Indicator, ranging for the period 1973 to 2013. Co-integration VECUM and Granger Causality test were statistically used to test the variable relationship and causality effect of the variable. The findings

of the study showed that bank credit had extensive relationship with industrial development; in short term the relationship was also significant. Regression analysis showed that there was adverse impact of bank credit on industrial development.

Akujuobi and Nwezeaku (2015) determined the effect of bank lending activities on industrial development in Nigeria, covering the period, 1980-2013. Applying the test for stationarity with the Ordinary Least Square (OLS) and Co-integration procedures, the results revealed a significant relationship between bank lending activities and industrial development in Nigeria.

Olowofeso, Adeleke and Udoji (2015) ascertained the impacts of private sector credit on industrial development in Nigeria using the Gregory and Hansen (1996) co-integration test. The method was applied to quarterly data spanning 2000 to 2014, while the fully modified ordinary least squares procedure was employed to estimate the model coefficients. They found a co-integrating relationship between output and its selected determinants, but with a structural break in 2012. Amongst others, findings from the error correction model confirmed a positive and statistically significant effect of private sector credit on output, while increased prime lending rate was restricting development.

Makinde (2016) explored the implications of deposit money bank loans on industrial development in Nigeria between 1986 and 2014. Using the Ordinary Least Square (OLS) multiple regression techniques, the study revealed that only the agricultural sector have being enjoying much of Bank credit and it has been making positive impact on the Gross Domestic products (GDP) while others sectors such as Mining and Quarrying, Manufacturing and the Building and Constructions sectors have not being getting much attention in terms of bank credit to spur development in that sector.

Okaro and Sunday (2016) evaluated the effects of deposit money bank's credit on industrial growth and development in Nigeria (1981-2015). Multiple regression technique was used on an annual time series data from 1981 to 2015 sourced from CBN statistical bulletin. Estimated single equation models using Ordinary Least Square (OLS) regression framework was used and the findings indicate that total credit by deposit money banks to all sectors of the economy is positively and significantly related with industrial development in Nigeria. However, the study also revealed that while DMBs credit to private sector drives growth, DMBs credit to public sector frustrates growth due to crowding out effect. Therefore, the study recommended that DMBs should be encouraged to direct their credit to priority sectors of the economy.

Kolapo, Ojo, and Olaniyan, (2018) examined deposit money banks' credit to private public sectors and its nexus with industrial development in Nigeria over the period 1970-2016. The study adopted per capital income as proxy for industrial development, while credit to private sectors, credit to government sectors, money supply, and lending interest rate were the explanatory variables. The Ng-Perron and Augmented Dickey Fuller Breakpoint Unit Root tests were used in checking the presence of unit root, and in determining the order of integration of the variables. Findings revealed that bank credits to government sectors and lending interest rates were stationary series as  $p < 0.01$ .

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The Granger Causality feedback hypothesis establishes that banks credit and industrial development Granger cause each other. The study recommended that monetary authorities should regulate the activities of deposit money banks to ensure that they gear up the growth of credits to private sectors by examining factors, such as lending interest rate which can possibly undermine lending to these sectors.

**CHAPTER THREE**

**RESEARCH METHODOLOGY**

**3.1. Introduction**

In this chapter the research design, sources of data and model specification are presented. Also the measurement of the study variable, operationalization of variables and the method of data analysis are highlighted.

### **3.2. Research Design**

This study intends to employ an empirical research method in studying the relationship between deposit money banks activities and industrial development in Nigeria. The longitudinal research design will be adopted within an ordinary data framework, given that deposit money banks activities in industrial development of several sectors has been observed over time.

### **3.3. Sources of Data**

This study is exclusively based on secondary sources of data which will be sourced from Central Bank of Nigeria (CBN) statistical bulletin, the National Bureau of Statistics publications and the financial data of individual firms and will be collected from the audited annual financial reports and account of the firms using time series data over the period 1981 and 2022.

### **3.4. Model Specification**

In order to empirically investigate the impact of deposit money banks activities and industrial development in Nigeria, the model for this study is functionally represented below:

$$\text{INDO} = f(\text{DMBA}) \text{-----}1$$

$$\text{INDO} = f(\text{CPS, ILA, BLR, INF, FSZ}) \text{-----}2$$

Where:

INDO = Industrial Output

F = Function

CPS = Credit to Private Sector

ILA = Interest on Loan and Advances

BLR = Bank Lending Rate

INF = Inflation Rate

FSZ = Firm Size

**Econometrically, model 2 above is restated as:**

$$\text{INDO} = \beta_0 + \beta_1\text{CPS} + \beta_2\text{ILA} + \beta_3\text{BLR} + \beta_4\text{INF} + \beta_5\text{FSZ} + \mu_t \text{-----} 3$$

Where

$\beta_0$  = Constant

$\beta_1$ - $\beta_6$  = Parameter Estimates

$\mu$  = Random Error Term or Stochastic Element

t = Time Trend

### **3.5. Measurement of Study Variables**

The variables under investigation are grouped into dependent variable (regressand), independent variables (regressors) and control variables. They are expressed and operationalized below:

### **Dependent Variable**

The dependent variable in this study will be Industrial Output and will be represented by

### **Independent Variable**

The independent variable in this study will be Bank Participation and will be represented by credit to private sector and interest on loan and advances.

### **Control Variables**

The study controlled for banking lending rate, inflation rate and firm size.

### **3.6. Operationalization of Variables**

**Table 3.1:**

<b>S/N</b>	<b>Variable</b>	<b>Measurement of</b>	<b>Nature of Variable</b>	<b>AprioriExpectation</b>
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		<b>Variable</b>		
1	Industrial Output (INDO)	Index of product revenues, adjusted for prices changes	Dependent	Positive
2	Credit to Private Sector (CPS)	Net amount of liabilities (debt securities and loans)	Independent	Positive
3	Interest on Loan and Advances (ILA)	Total interest on loan and advances issued by the firm	Independent	Positive
4	Bank Lending Rate (BLR)	Real interest rate and expected inflation	Control	Negative
5	Inflation (INF)	Rate of change on prices	Control	Negative
6	Firm Size (FSZ)	Net book value of total asset, equity	Control	Positive

		and total revenue		
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### **3.7. Method of Data Analysis**

The study desired to adopt the Ordinary Least Squares Regression Technique. This choice is to enable the study to avoid the problem of multicollinearity which can easily arise when working on time series data model. Prior to estimation of the models, Preparatory test will be performed on the data set. The Eviews 9.0 econometric software was employed for estimation.

## DATA PRESENTATION AND ANALYSIS

### 4.1 Introduction

The study examines the impact of deposit money banks activities on industrial development in Nigeria. In specific terms, it examines the impact of: credit to the private sector (CRP), interest on loans and advances (ILA), bank lending rate (BL) and inflation rate (INF) on industrial development (INDO). The regressant, industrial development which is proxy by industrial output (INDO), was regressed on the regressors – credit to the private sector (CRP), interest on loans and advances (ILA), bank lending rate (BL) and inflation rate (INF). Using EViews 9.0 econometric package, the ordinary least squares (OLS) regression equation for a time series data of 41-years range, 1981 to 2021 indicated the presence of autocorrelation with DW=0.56 thus rendering the initial results spurious. To correct for autocorrelation, the Cochrane-Orcutt autoregressive technique, AR(1), was employed. Convergence was attained after 12 iterations with 41 included observations after adjustment in time period (1982-2021). The final results are as shown on table 4.1 below:

**TABLE 4.1: OLS REGRESSION RESULT OF DEPOSIT MONEY BANKS ACTIVITIES AND INDUSTRIAL DEVELOPMENT**

Dependent Variable	Independent Variables	Coefficient	t-Statistic	Probability
INDO	C	14360.63	4.846391	0.0000
	CPS	1.141271	7.223615	0.0000
	ILA	25.97614	1.598790	0.1191
	BLR	-24.94764	-0.082024	0.9351
	INF	-20.67283	-0.818941	0.4185
	AR(1)	0.744476	4.201249	0.0002
R <sup>2</sup>	0.9869			
Adjusted R <sup>2</sup>	0.9846			
F-statistic	429.702	Prob(F-stat)	0.000000	
Durbin-Watson	1.56			

$$\text{INDO} = 14360.63 + 1.141271\text{CPS} + 25.97614\text{ILA} - 24.94764\text{BLR} - 20.67283\text{INF} + v;$$

(4.84)
(7.22)
(1.59)
(-0.08)
(-0.81)

That  $R^2=0.98$  and adjusted  $R^2=0.98$ , are indications that about 98% of changes in the dependent variable, INDO, are explained by the independent variables of the model. The Durbin Watson statistic (DW), 1.56 (approx. 2.0), indicates the absence of autocorrelation among the explanatory variables of the model. Similarly, the F-statistic of 429.702, that is statistically significant at 1% level (probability value is 0.000000) indicates that a linear relationship exists between the independent variables and the dependent variable (INDO). Thus, our model satisfies appropriate diagnostic and statistical criteria. Therefore, the results of the OLS regression are reliable and the influence of the explanatory variables on the dependent variable is significant. The model can be useful for policy direction (see table 4.2 on the appendix for the full OLS regression output).

From table 4.1 above, bank credit to the private sector (CRP) and interest on loans and advances (ILA), are positively related to industrial development (INDO) (proxied by industrial output (INDO)), while bank lending rate (BL) and inflation rate (INF) are negatively related to industrial output (INDO). That bank credit to the private sector (CRP) is positively related to industrial output is in conformity with theoretical expectation, whereas the positive relationship between interest rate (INT) and industrial development (INDO) is contrary to *a priori* expectation. The possible explanation here is that the level of interest rate increases the manufacturing sector's gross earnings from its manufacturing activities probably due to less dependence on bank loans hence the positive relationship. However, inflation rate (INF) and exchange rate (EXR) are negatively related to industrial output (INDO) in agreement with theoretical expectations.

The relationship between credit to private sector and industrial development is statistically significant (t-stat is 7.22 & prob. Value is 0.00) at the 1% level. However, the relationship between interest on loans and advances (ILA) and industrial output (INDO) is not statistically significant (t-stat is 1.59 & prob. Value is 0.11) at the 5% level. Meanwhile, the other relationships are also not statistically significant including the relationship between bank lending rate (BL) and industrial output even at the 10% level (prob. value is 0.93). Also, the relationship between inflation rate and industrial output are is not statistically significant. Therefore, we conclude that bank credit to private sector have positive and significant impact on industrial sector's development in Nigeria while the other variables: interest on loans and advances (ILA), bank lending rate (BL) and inflation rate (INF) have no significant impact on industrial sector development within the period of study (1981 to 2021).

### **Implications for Policy and Recommendations**

For the industrial sector to perform optimally the managers of industries should continue to take advantage of bank loans and other debt instruments in order to boost their development significantly, In addition, industrialists should depend more on local sources of raw materials in order to reduce their foreign exchange cost caused by high inflation in Nigeria. Also, inflation rate targeting policy to ensure that the level of inflation remains within acceptable and productive level should be sustained. These would help the manufacturing sector enhance their output and development through adequate management of their financing costs from deposit money banks.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

#### 5.1 Introduction

This chapter focuses on the summary of findings from the empirical results analysed in the preceding chapter, as well as concluding remarks, which constitutes the final curtain on this empirical study. The policy perspectives necessitated by the general and particular findings of this study are subsequently presented.

#### 5.2 Summary of Findings

This study uses time-series data to investigate the impact of deposit money banks activities on industrial development in Nigeria. To facilitate the study various hypotheses were proposed on the relationship that seems to exist between deposit money banks activities and industrial sector development in Nigeria. Using annual time series data covering the period 1981 - 2021 and ordinary least square (OLS) technique, the study specifically finds the following:

- (i) That bank credit to private sector (CRP) is positively and significantly related to industrial sector development (INDO) in Nigeria
- (ii) That interest on loans and advances (ILA) is positively and insignificantly related to industrial sector development (INDO) in Nigeria.
- (iii) That bank lending rate (BL) is negatively and insignificantly related to industrial sector development (INDO) in Nigeria
- (iv) That inflation rate (INF) is negatively and insignificantly related to industrial sector development (INDO) in Nigeria.

### **5.3 Conclusion**

This study set out to investigate the effect of deposit money banks activities on industrial development in Nigeria. The methodology employed in the study involved the estimation of a multivariate regression model relating banks' loans to the private sector (CRP), interest on loans and advances (ILA), bank lending rate (BL) and inflation rate (INF) with industrial sector development. Findings of the study indicate that banks' loans to the private sector (CRP) exerts positive and significant impact on industrial sector development while interest on loans and advances (ILA), bank lending rate (BL) and inflation rate (INF) are not a significant determinant of industrial sector development in Nigeria. In conclusion, the empirical results support the position that bank credit/loan to private sector play an important role in the growth of industrial sector in the Nigerian economy.

### **5.4 Policy Recommendations**

Based on the empirical findings from our results, the following policy recommendations are advanced:

- (i) For the industrial sector to perform optimally the managers of industries should continue to take advantage of bank loans and other debt instruments in order to boost their performance significantly.
- (ii) In addition, industrialists should depend more on local sources of raw materials in order to reduce their foreign exchange cost.
- (iii) Also, inflation rate targeting policy to ensure that the level of inflation remains within acceptable and productive level should be sustained.

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