DETERMINANTS OF INVESTMENT IN NIGERIA (1985 - 2011)

BY

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A PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B. SC) DEGREE IN ECONOMICS

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APPROVAL PAGE

I certify that this project work was carried out by Udonsah Deborah L. it has been read and recommended for acceptance in partial fulfillment of the requirement for award of Bachelor (B. Sc) Degree in Economics.

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DEDICATION

I hereby dedicate this project to God Almighty for his mercy, having made the journey successful and my family for their love and support towards my education and most of all for believing in my capabilities.

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My profound gratitude goes to God almighty who has counted me worthy of his protection, grace and guidance. Glory and honor to the Holy Spirit who inspired my thought and gave me understanding of what life is all about.

My thanks goes to my parent Mr. and Mrs. Udonsah who labored to bring me up and gave me the training and discipline that have helped my life, to my siblings for their support and care, Idorenyin, Eno, Ukeme and Elijah.

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ABSTRACT

In recent times, there has been growing concern about the rising but volatile rate of investments in Nigeria. Thus concern stem from the fact that investment plays a dominant role in stimulating growth. The study buttress on the overview and empirical analyses into the determinant of investment in Nigeria in other to achieve the objective hypotheses which was stated with the purpose of achieving current and future stable and upswing of investment by readdressing problems of investment, as highlighted in the statement of problem. The study used investment as dependent variable and interest rate, inflation, foreign direct investment, degree of trade openness, gross domestic product, and money supply as independent variable. In analyzing the data, economic model of multiple regression using ordinary least square (OLS) techniques was employed. t- test was conducted to evaluate the significant of independent variables in the model not statistically significant at 5 percent level. Auto correlation and heteroscedaticity test were employed as the second order test.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The Nigeria economy has witness a slow pace growth of less 5 percent in the decades. Various reasons have been advanced to this development but the most apparent have been poor investment climate in the economy and this has been attributed to the low available investable funds.

The stimulation of sustained economy growth requires a balance investment in physical and financial assets human and social capital as well as natural and environmental capitals.

Nigeria has been classified as low saving and even lower investment economy (Ajakaiye 2002) one of the principal objectives of the Nigerian government under the 1999 democratic dispensation is fostering of sustained economic growth. Over the years, the government has been in the driver's seat in growth the government economy. But lessons of experience have shown that government cannot regulate the economy effectively. A typical example has been the shift under the National economic empowerment and development strategy (NEEDS) which has recommended the need to

restructure and deepen the financial system. Some economist like Mc Kinnon and Shaw (1973) said that rising investment alone is not sufficient enough to bring about growth and the role of financial institutions is very vital. In particular the new express of that the role of capacity fund is very critical to the success of any endeavor (World Bank 1998). In this regards, it is therefore important to investment the determinants to investment in economy in the past three decades.

Banking sub sector in Nigeria has remained foreign in rural areas. But recently the establishment of community banks (now micro finance banks) has been, to

Deepen their operation in rural areas. These banks with government assistance give loans and mobilize savings from rural areas for further investment in Nigeria.

In addition government have tried to provide necessary infrastructure in rural areas reduce the rate of rural- urban migration for the purpose of compelling the rural population to take agriculture to grater height as it was in past 38 years, however, the diversification of the various sectors of the economy has been the

main objective of the government. This is to increase employment which will increase income and saving for investment.

But the process so far have not been adequate because of political instability and police inconsistence which range from corruption of political administrators and negative effects of transitional government.

Diversification of different key sectors of the economy like agriculture and industry increase employment, incomes, consumptions, savings demand and generally, aggregate investment level that will broaden and Deeping the society standard of living. But dismissal growth record in most African countries relatives to other region of the world has been of concern to economist. (World bank, 1998).

This is because the growth rate registered in most African countries including Nigeria is often not commensurate with the level of investment.

In Nigeria for instance, the economy witnessed tremendous growth in the early and late 1970(World Bank) as a result of the oil boom.

This increased investment especially in the public sector, but with the collapse of the oil market prices in the early and mid-1980s

investment fill, thereby causing a fall in economic growth. For example, during the investment boom, gross investment as a percentage of GDP was 16.8% and 31.4% in 1974 and 1976 respectively ,where as it decline to 9.5 and 8.7 percent in 1984 and 1985 due to the depression (world bank).

Although the rise in oil prices during the 1990-1991 periods was supposed to spark off an investment but that was not the case in Nigeria. The Nigeria military government for instance was inexperience in formulating economy policies and thus,left that task to bureaucracy (Idoko 1996). The unit was that investment decisions which were undertaken with great decline, the government in 1986 adopted IMF World Bank structural adjustment programmer (SAP) with a view in providing stable macro-economic and investment environment.

To this end interest rate that were previously fixed and negative in real terms were replaced by an interest rate regime which is driven by market force. The policy shift de-emphasized direct investment stimulation through low interest rate and encourages savings mobilization by decontrolling interest rate (World Bank 1996). Consequently, the objective of enhanced investment and

output growth was not realized as the countries investment failed to erase to anything near the level it has reached in the 1970s.

Although successive government has implemented policies and strategies raising the level of savings and investments, this policy so far has been erratic as a result of the recent change in government as a result of political instability.

In addition, the experience of East Asia countries suggested that an investment rate of between 20 and 25 percent could endanger growth rate of between 7 and 8 percent. Strategically evidence reveals that output represented as the GDP in Nigeria shows a picture growth after the civil war, following the oil boom of the 1970 such that growth rate stood at 21.3% in 1971(Bage 2003).

Therefore, for Nigeria to register increase in growth and development there is need to increase the private investment that will lead to higher growth, as was the case of Asian countries.

Finally an analysis of domestic investment require a simultaneous link to GDP as aggregate factor interest rate and other unique variables that reacts to fluctuations in investment like debt ratio, business environment real exchange rate government expenditure and provision of infrastructure etc.

1.1 Statement of the Problems

Domestic investment in Nigeria has been constrained by numerous factors.

These factors range from the following:

Low capital stock: investment can never be successful if the capital is low

The poor level of capital stock has been as a result of poverty which decreases domestic saving resulting from decline in real pre-capital inadequate infrastructure entrepreneurial activities is discouraged more by the absence of basic infrastructure like electrify, good roads and communication (Green 1991).

Economic and social infrastructure are poverty developed in Nigeria thus domestic and foreign investors are way of investing in countries where basic requirement are inadequate political instability and policy inconsistency, due to the transitional nature of the Nigerian government investment have been derailed.

Interest rate more inversely with investment that is as interest rate increase is falling investment rises. But Nigeria in interest rate of about 17.69 year ended 2006 did not account for upswing in

private investment because of inappropriate administration and poverty.

The growth of domestic and external debt over the year has negatively affected the level of investment in Nigeria. Nigeria debt burden between 1980-2011 has effect for the economy and the welfare of the people. for example, Nigeria was owing the international community as act of 2007 was up to billion while (US) which could have been used for more allocation of basic requirement that would aggravate investment (Idoko 1966).

Exchange rate fluctuation has also contributed to low propensity to invest in Nigeria by the foreigners. This is because of low manufacturing of export goods. Capital which would have ordinarily increased domestic exchange rate (Jhigan 2005). Therefore, instead of investing domestically the greater percentage of Nigeria's proffer investing abroad where their money would manage effectively.

Huge cost of raw materials and inadequate developed nature of domestic raw materials for investment. Therefore government should give incentives to encourage the investors give holding and reduction in duties changed during import of raw materials.

1.2 Research Questions

The study resolves around answering the following question:

What is the determinant of investment in Nigeria?

What is the relationship between inflation rate and investment?

1.3 Objective of the Study

The objective of the study will be;

To determine the factors that determined investment in Nigeria

To determine the relationship between inflation rate and investment in Nigeria.

1.4 Statement Of Hypothesis

The research study will be conducted under the hypothesis frame work below

Ho: there is no factor that determines investment in Nigeria.

Ho: There is no relationship between inflation rate and investment in Nigeria.

1.5 Significant of the Study

The importance of the study lies in the fact that will provide an insight into the factors that determined investment in Nigeria.

It wills also further identity the reason why Nigeria investment efforts have not provided the desired results.

It is to anticipate that this research work should be a source of reference to economic and social planners interested in the study of investment in Nigeria.

CHAPETER TWO

2.1 LITERATURE REVIEW

Investment is one of the components of aggregate demand and therefore it plays a crucial role in the determination of equilibrium, national income. It means the accumulation of real capital goods that is those stocks and means of production like plants machinery, new building, will and land to future flow of services. In other words, investment consists only of new physical goods to be used to increase productive capacity and leave future output.

Although, investment is a smaller component of aggregate demand than consumption. It is more volatile as a source of short run; it is a more important determinant such that variation in it can produce magnified changes in aggregate demand and level of output on employment. In many modern economic investment account on the average of 15 to 20% of GNP. However, because of its vitality and variability the important is out of proportion of its size.

Investment expands productive capacity. It is a major explanatory and contributory factor to long run growth in the economy, it is largely unpredictable. Investment is financial from both domestic and foreign saving in advanced countries of the

world, domestic savings are mainly used and always enough to financial investment. In developing economies, foreign savings are used to supplement domestic savings to finance investment the first component is new construction.

The new construction include residential and commercial construction while the residential may be new house built rents, commercial construction are those by firms to enhance their business.

Producer durable equipment like machine is consisting of second component of investment, while the third component is net change in business investment. However, commercial construction and producer durable equipment are called plant and equipment (Ihesiulo 2005).

Investment can be of this kinds, these two classifications are based on the source of investment which are based on foreign or domestic public investment are those investment abroad by the state, while it can be domestic if it is always dependent of the level of income. Private investment are those investment by the profit oriented individuals or firms. It can be foreign when they invest abroad and domestic when they invest within the economy. But for

the sake of this research, private domestic investment are investment that is, individual in a country (both citizen and foreigners) for example, Dangote groups is a private domestic investment in Nigeria.

Furthermore, public's investment which is carried on by a state of government is always autonomous. This entails that most often the government in other for the growth and development of such economy which may not necessarily be profit minded, while the aim of profit investment is always to make profit and it is dependent of income levels.

The levels of investment are determined by various factors. The major determinant of investments is:

Interest Rate: This is more inversely with investment rate that is to say the higher the interest rate, the less investment is induced. On the other hand if interest is low, the inducement to invest is always high. This is because if the cost of obtaining capital is high, potential investment will back investment because it will reduce the return on investment (Ayanwu 1997).

Cost of capital: The cost of procuring capital needed in an industry is compared by investor, these cost may be cost binding and

machineries etc. if these costs are low, private domestic investment will rise consistently and vise-versa.

The expected rate of return during the time of a project in other words, it may be regarded as the case inflow that is the ability of the project to give an efficient and sufficient returns on investment. If the expected rate of return is high investors will always increase their level of investment.

However, Keynes's sum up these factors in this concept of marginal efficiency of capital (MEC) and marginal efficiency of investment (MEI).

The MEC is the highest rate of returns expected from an additional unit of capital assets over its cost. It is the ratio between the prospective yield of addition capacity good and their supply from an asset during its life time while the supply price of capital assets is the cost of producing this asset (Jhingan 2005).

The MEI is the rate of return. Expected from a given investment on a capital asset after covering all its cost except the rate interest like MEI, it is the rate which acquires the supply price of capital assets to its prospective yield. The investment on an asset will be made depending upon the interest rate involving in getting

funds from the banks the MEI relates the investment to the rate of interest. Its schedule shows the amount of investment demanded at various rate of interest that is why it is called the investment demand schedule curve the MEI (stock) is based on a given supply praise for capital and MEI (flow) on induced charges in the price. The MEI shows the rate of return on all successive unit of capital without regards to the existing stock of capital. On the other hand the MEI shows the rate of return on only unit of capital over the above the existing stock of capital Jhingan (2006).

The Rate of Government Expenditure: There is a strong and positive relationship between government expenditure at rate of investment. Government autonomous expenditure on different sectors of the economic structures employment as well as income of the public the increase in income will also increase consumption as well as private investment.

Consumption Demand: Both the present and future demand for products greatly influence the level of investment in the economy. If the current demand for consumer goods is increased rapidly more investment will made to meet up the increased demand. Therefore,

the household consumption has a close relationship with investment depending on whether it is increasing or decreasing.

Inflation rate: is the persistence rise in the prices of goods and services when there is mild inflation it increases FDI and it said by Keynes in his works.

National income: An increased in level in an economy through the rise in money wage rate and other factor income increases aggregate demand as well as investment to invest will fall with lowering of national income

Stock of capital: Private can never be successful if the capital stock is very low. This has been one of the capital stock is very low. This has been one of the problem shrinking private investments domestic in Nigeria. This is a result of poverty which also decrease domestic saving therefore, for investment to grow, there is need to upgrade the level of capital stock in Nigeria Khorkate(1998).

Investment and Innovation: The two level to raise the level of investment through its increase in technological advancement as well as its increase in productivity and a reduction in production cost Anyanwu (1995).

A rapidly growing population means a growing market for all kinds of goods in the economy. To meet the demand for an increasing population in all brackets investment increases both in consumer goods and producer goods. Jhingan (2006).

State policies of government have an important influence on the inducement to invest in economy potential investments monitor the government policies before an investment is done. It is necessary to note that the entire factor (determinants) that affects investment in general also determines the faction of investment which is the basic of this research project.

2.2 Theoretical Framework

Theories of investment

The principle of Acceleration

This has two forms, the simple on the afflation clerk acceleration and the flexible.

Acceleration or Lag: in investment this theory has some assumed fundamental assumptions:

- The theory assumed a constant capital available
- It assumed that resources are easily available
- It assumed that there is no excess or idle capacity in plants

- It assumed that the increased demand is permanent
- There is elastic supply of credit and capital
- It increases in output immediately lead to a rise in net investment.

The Afflation Clerk Acceleration:

The acceleration principle finds its roots in the work of Thomas Nixon caver(1903) Albert Afflation (1909) Bicker Dike(1994) and John Maina Dark(1917). unlike other theories of investment, the acceleration theory received heavily up its empirical strength for its derivation and justification the accelerator or the relation as Royttenod(1936) called its condition if demand increase there will be an excess demand for goods facing such a situation firms are faced with two options either to raise price in the hope of trading away that excess demand or to meet that demand by raising supply under certain situation, it might be understandable that the former option might be exercised in more Keynesian vision of the world quantity adjustment take precedence in other to increase output must increase.

However, demand stock are many and not all are permanent if for instance a firm responds to an aggregate positive demand stock at

time -t by increasing capacity immediately it might be faced with a dilemma. We can say that a firm instead of increasing capacity immediately and fully in response to a single demand stock it will respond gradually until it converse to the desired level of capacity. It finally states that actual investment at time-t (I t) will be a fraction (v) of the past changes in output and aggregate demand.

Flexible Acceleration Theory of Investment:

The flexible acceleration theory of investment otherwise known as lag investment is associated with Chancery (1951) and Godwin(1952).

In their book the nonlinear acceleration and persistence of business cycle. These lag includes:

- The decision making lag
- The financial lag
- The delivery lag

According to this type, if there is an increase in demand for output to meet it, from uses its inventories and then utilizes its capital stock more intensively. If however, the increase for some time then the firm should increase its demand for capital stock. The

gap between the occurrences of the increase stock is what (chancery and Godwin) referred to as decision making lag.

Finally a delivery lag exists between the ordering of capital stock and delivery.

Strength of the Acceleration Theories:

The acceleration makes the process of income propagation clearer and more realistic than the multiplier theory. The multiplier shows the effect of a change in investment on income via the consumption or output on investment and income in addition (professor Shaper) opines that the acceleration principle however, inadequate by itself clearly emerges as one of the major factors that are needed in contribution with the multiplier to explain the fluctuation observed in the world of spending.

Weakness of the acceleration theories:

The acceleration principle did not give consideration to interest rate influencing investment such as absence would only be possible if there is an assumption of constant relative price for factors. The idea to invention, innovation and improvement in techniques which have resulted in the increase output unit per capital.

Thirdly it has been criticized on the basis that investment decisions are not influenced by demand alone but also affected by future anticipation like market changes, political climate, economic climate provision of stable infrastructural facilities among others.

Neo Classical Theory Of Investment

The neoclassical theory of investment is the theory of business fixed investment sees the rate of investment being determined by the speed with which firms adjust their capital stock towards the desired level, if the desire capital stock is bigger, the larger the expected output the firm or user cost of capital.

Marginal Adjustment cost theory:

Wick sell (1898-1901) established that there is a stock flow difficulty with the theory of capacity and investment. Specifically as identified by Fredrick (1941) Abba leader (1944-1953) and Truggle Haarelmo (1960) it is virtually impossible to allow the marginal production theory to determine the optimal level of investment. Without eliminating the flow of investment term entirely as leaner (1944-1953) proposed, as investment increase, the cost of new capital stock is reached where r is the interest rate. These rising cost

would therefore slow down adjustment all allow for both optimal capital and optimal investment to be defined.

It can be summarized as MEI= FK-MAE where FK is like marginal product of capital good(r).

Evaluation of the marginal adjustment cost:

In the marginal adjustment cost analysis the firm faces a short run supply constraint which raises the price of its goods. Thus, in any single period the optimal level of investment will be found where marginal efficiency of investment is equal to interest rate (MEC=R)

James For Bins Q Theory Of Investment:

He presented this in Brainerd in1968. The "q" theory investment entails a connection between investment and stock market. The price of a share in a company, the managers of the company can be thought of as responding to the price of the stock by producing more new capitals that is investing when the price of shares is high and producing less new capital or not investing at all when the price of share is low "q" is an estimate of the value the stock market places on a firms asset in its simplest form "q" is the ratio of the market value of a firm stock to the replacement of

capital. When ratio is high firm will produce assets so investment will be rapid. In fact, the higher the "q" is greater than one (q>1) a from should add physical; capital because the firm can sell stock for q naira and pocket a profit q-1, this implies a flood of investment behavior. So investment rises moderately will q.

Evaluation of Tobin's Theory

Heyeshi (1982) showed that the production function and the adjustment cost function are linearly homogenous inputs (capital and labor) that average "q" is observable to the economist.

Keynes's Internal Rate of Return Theory of Investment.

In this general theory, where he proposed on investment functions, where the relationship between investment and interest rate was of a rather naïve form, Firms were presumed to "rank" of various investments. Project depending on their rate of return (or marginal efficiency of investment) and thereafter factor faced with a given interest rate and choose those project whose internal rate of returns exceeds the rate of interest. Plants and equipment stock, the simple afflation acceleration principle entails that an increased in the rate of output of a firm will require proportional increase in its capital stock. Assuming that capital output ratio is constant. The

optimum capital stock is a constant proportion of the output so that in any period.

T, kt= vyt.

Where kt is the optional capital stock in period t, v (acceleration) is a positive constant and yt is output in period t any change in output will lead to a change in the capacity stock thus, kt- kt-i=v (yt-yt-1) it=u (yt-yt-1)

Therefore it- kt-kt-1 =(yt-yt-1)

In the above equation the level of the net investment is proportional to change in output remains constant, net investment would be low for net investment. The firm would make present value of the series of annuities given by then returns expected from the capital asset during its life just equate supply price.

It therefore follows from Keynes that the inducement to invest depends partly on the MEC and partly on the rate of interest on the contrary. He also observed that the inducement to invest in inversely related to the rate of interest so that when interest rate is high, investments tend to be discouraged and vice versa.

Argument against the Keynesian theory for the purpose of this work, we shall take only one, the ideally several post Keynesian,

such as Anthanassian. A Sima pules (1971-1991) and Piero Gareganic (1978). They argued that in the presence of employment the possibility of a downward sloping MEC as observed by Keynes become inconsistent.

Profit Theory of Investment

This theory regards profit (undistributed) as a spore of internal fund for financing investment. Investment depend on the profit which in turn depends on income in this theory profits of relate the level of current profit and of the recent past. If the total income and total profit are high, the retained earnings of firms are also high and so investment. In this situation the firm re-invest which implies that the interest rate or cost of capital is low a while the optional stock is high or large that is low why firms prefer to re-invest their extra profit for making investment instead of keeping them in banks for making investment.

2.3 Empirical Literature

As we have seen the theoretical review, there are many transmission channels through which investment is affected many studies have been carried out empirically to test the relationship

between investment and factor =s that affect it. Therefore, we will look at them.

Greece and Villanueva (1991) eliminated the effect of different macroeconomic variable and policies in developing countries including Nigeria. Their result showed that private investment GDP ratio is positively related to real GDPs growth level of per-capital GDP and the rate of public sectors investment while real interest rate domestic inflation, the debt service ratio negatively affected investment ratio Roma)1990) Investigated the theoretical and empirical determinants of gross investment in developing countries such as financial depression lack of infrastructure, economic instability level of aggregate demand foreign exchange shortage relative factors and credit availability as important variable that explained investment Kharkhale (1988) used a non-parametric methodology in his study of the relationship between investment rate and other macroeconomic variable including saving and investment. He grouped by developing countries including Nigeria into three, based on the level of their real interest rate grown A,B,C comprised countries with non-negative interest rate respectively. He then continued by computing economic ratio among which were gross

saving income investment and investment income for the countries. Applying the manna Whitney test, he found that the impact of real interest were not significant for the three group. His methodology was criticized by Balasa (1989) arguing that a relationship has to be established by the use of regression analysis culinary and stout (1996).

He established the positive relationship between investment and economic growth using the investment income ratio as the explanatory variables, Iyaha, (1998). Using the same parameter will be able to analyst the impact on growth in Nigeria using data for the 1970-1994 periods, Iyaha found a 10% rise in investment income. Ratio will trigger up a 3% increase in per capital gross national product (pre- capita GDP) increase in investment income ratio will induce a 26% increase in per-capital GNP.

Therefore for government to achieve its desire objective of high economic growth and rapid development it must pursue policies that will increase both in public and private investment.

In Nigeria, a study was carried out by Chete and Akpokuge (1997). They found that public investment stimulate private investment and suggested that public investment crowd in private

investment. Similarly, but weaker relationship was reported by Malambo and Oshikoya (1999). In their study on micro economy factor and investment in Africa, the need for both private and public sector in Nigerian economy to serve in order to be able to increase investment was clearly demonstrated by Ibandan and Odusula (2001) using the granger causality test on Nigerian data, they tested the causality relationship between investment and economic growth was found. This observation confirmed the findings of Iyala study of the same matter and therefore gave credence to the important role of the investment in growth process. Having recognized the important role of investment in the economy growth in Nigeria, it is essential to adopt policies and strategies that will ensure a stable micro economic environment conducive and rapid capita accumulation.

Furthermore, the shard debt crises of early 1980s and lead to the inclusion of debt burden as a determinant to demonstrate investment in Nigeria. Many empirical studies are found in negative association between investment and debt overhead as proxies. Buy debt + GDP ratio.

Burensztaiz (1990) however argued that it is credit unworthiness associated with debt overhead that really matters for an additional interest rate reported to have a negative relationship in investment as a ratio GDP in Uganda Okuru (1999).

Agu (1988) reviewed the determinant and structure of interest rate in Nigeria and noted the experience of low nominal and negative rate interest rate during most of the review period (1970-1985). He demonstrated the negative effort of low interest rate on savings and investment using Makinnon financial repression diagram. Agu`s conclusion based on theoretical analyses prompted Rachael (1991) to investigate the empirical relationship between real interest rate, the saving and investment in Nigeria. It is his regression result that real interest was positively related gross domestic, financial savings (comprising of personal and government savings).

Exchange was significant and positively related to a financial savings exchange rate was reported Attse and Achep (1995) in cote de ivory to have an ambiguous effect a positive significant co-efficient in private investment equation while Okurut (1998) found a positive relationship between real invest rate and GDP interest ratio,

even the world bank (1995) confirmed that there is strong co-relation between improvement and depression of real effective exchange rate. Chate and akpokuge (1997) also found positive relationship between credit to private sector plus foreign private inflow and private investment in Nigeria. Similarly in Tanzania Moshi and Kilindu (2001) found a credit from investment bank significant a 5% on investment. In the same vein inflation and derivation of income from its train level was used as surrogate for economic instability by Chete and Akpokuja (1997) in Nigeria and they found a negative impact of the investment. They reported that the impact of derivation income was higher than that of inflation.

In developing countries like Nigeria, private investment is also playing a prominent role in investment Khan and Khan (2001) attempted to analyze the determinant of private investment by using ARDL co-integration technique to check the existence of long run equilibrium relationship as well as short run dynamic of investment. The result supported the idea of providing a suitable environment for market e.g. protection of policy rights, enforcement of contract and voluntary exchange at market determined prices. Asia Ataullah et al (2002) reviewed the trend of investment for these trends of all the

variables are collected from (1970-2000) was taken from the global development of domestic institutional structure, human capital and indigenous entrepreneurship. Ahmed (2004) analyzed household savings with respect to the characteristics of household. The study may use make use of savings function by using dummy variable approach and concluded that savings behavior is influenced by various factors including wealth, employment status, education, age dependency in a study by Fang (2006) on the role of investment in OECD countries ED and euro areas in cross section data collected were from (1971-2002). Then study concluded that the country dependent savings investment model is the best performing model. Joshi (2007) made an attempt to categories domestic savings capital account of the balance of payment has explanatory variable for capital formation in the country. The long run steady state relationship between various component of savings capital account balance and gross domestic capital formation is estimated. He however concluded that inflow increase capital formation and growth in economy and that there is a long run relationship between saving and capital account formation, also the study by Wahid et al (2008) in south Asia. Panel data were used for five Asian countries

over the period (1973-2012)the study find the existence of low positive correlation between saving and investment in three selected Asia countries.

Bayrakfar (2007) derive a formal specification of a private investment function in sub-Sahara Africa. Using the Tobin Q theory and the neo-classical theory of investment, their result point to the significant role plays by aggregate profit ability shock by the financing of investment consisted of public investment rate of growth 5.8% in 1995 but experience an increase on 8.3%in2 2003 and also resulted to a decline to 6.3 % in2008the perceptible slide in the ratio of private sector investment to GDP despite the emphasis on private sector.

The trend in aggregate domestic investment in Nigeria has been erratic over the years since independent in general the performance of domestic investment is weak after independent investment as a share of GDP rose from about 10.7% in1960 to 18.3% in 1995 representing a growth rate of about 11% within the period. The civil war and the advent of the petroleum oil and gross domestic investment performed as declined since then to 65% in 1976 this also declined to6.5% in1984 and 5.8% in 1995, there are

occasional improvement as of 1991 and1997 when the ratio was 11.0% and11 .7%. Nigerian GDP growth rate(%) gross fixed capital information growth rate as % share of GDP (1970-2010)in (1973-2012) the study find the existence of low positive correlation between saving and investment.

2.4 Limitations of Previous Studies

Generally from the review of studies one can conclude that the estimate of the domestic function are legally conflicting following the finding of kharkhate (1988) that interest rate was not significant relating to investment applying the Mana Whitney test. The result might be different if the other test like the ordinary least square is adopted the short fall of the data series derive residually.

Previous studies are focused largely on the empirical relationship between investment and debt stock total debt, external and internal debt. But have really considered the effect of debt payment.

Nnanna (2004) also reported that exchange rate is negatively related to investment with a coefficient of 0.414, this research work will also ascertain whether the relationship is negative or otherwise with good reasons.

Finally in (1973-2012) the study finds the existence of correlation between saving and investment.

CHAPTER THREE

3.1 RESEARCH METHODOLOGY

We can test the validity of economic theories buts expressing the theoretical model in term s of statistical relationship which can then be tested Haavelmo (1944). An econometric research is concerned with measurement of the parameter of economic relationship and with the prediction of economic variables.

3.2 Model Specification

The model is based on the classical investment theory which sees investment as dependent on interest rate. However, due to the peculiarity of Nigerian economy, the following factors identified by others investment theory will be include in the model the functional representation of model is as follows.

INV= F(INR, INF, DOT, GDP, MS, FDI)

INVT= a^0 + a^1 INR+ a^2 INF+ a^3 GDP +a^4FDI+ a^5

WHERE:

INVT= Aggregate private investment in period t

(Here investment rate is proxies by then minimum rediscount rate (MRR)

INV= Investment

INR= Interest rate

INT= Inflation rate

FDI= Foreign direct investment

UT= Random error term in period t

DOT= Degree of Trade opening

GDP= Gross domestic product

MS= Money supply

3.3 Multiple Regressions

INV=f (INR, INF, DOT, FDT, MS, GDP)

Y is the dependent variable representing investment where (INR, INF, DOT, FDT, MS, GDP) OR (X1 X2 X3 X4 X5 X6) are the independent variable representing interest rate or rate of inflation, foreign direct investment, U represent other in capture error term in the model.

The Econometric formula is stated below

INV = ao+ a1MS+a2 INF+ a3 INR+ a4 GDP+ a5 FDI+ a6 DOT+ e

3.4 Method of Evaluation

These consist of the method that will be used in deciding whether the estimates obtained are theoretically and statistically significant for the purpose of this study. The following technicalities or methods shall adopt for evaluating our estimate.

Economic A- Priori Criteria

Our concern in these criteria is to determine whether a parameter estimates conforms to economic APRIOR and magnitude as defined by the effect of interest rate on investment.

Statistical Criteria or First Order Test

These are test determined by statistical theory and aimed at evaluating the reliability of the parameter estimate.

Econometric Criteria

There are test set by theory of econometrics and aimed at investigating whether the assumption of the econometric method employed are satisfied or not under this criteria test for Durbin-Watson autocorrelation test. White Heteroskedacticity test will be used to determine whether the error term is constant or not accordingly to OLS assumptions.

3.5 Data Required And Sources

The data used for this study should be secondary data from the central Bank of Nigeria, publication bulletin, annual report and statement of account and economic and financial reviewed of various year supplemented with these date from the CBN statistical bulleting (2011) the time series data from (1985-2011)

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF RESULTS

4.1 PRESENTATION OF RESULT

The regression result is presented in the table below. This is in line with the model specification in chapter three.

Table 4.1: Presentation of Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-48714.02	240343.9	-0.202685	0.8414
INR	3146.560	11674.43	0.269526	0.7903
INF	-145.5788	2569.133	-0.056665	0.9554
MS	0.295473	0.046747	6.320668	0.0000
GDP	-0.017477	0.017339	-1.007922	0.3255
FDI	1.226936	1.091418	1.124167	0.2743
DOT	-72288.31	403571.2	-0.179122	0.8596
R-squared	0.974015	Mean dependent var		825676.4
Adjusted R-squared	0.966219	S.D. dependent var		1245785.
S.E. of regression	228968.7	Akaike info criterion		27.73897
Sum squared reside	1.05E+12	Schwarz criterion		28.07493
Log likelihood	-367.4761	F-statistic		124.9457
Durbin-Watson stat	1.994115	Prob (F-statistic)		0.000000

INV = -48714.02 + 3146.560INR –145.5788INF + 0.295473MS -

0.017477GDP +1.226936FDI -72288.31DOT + e

4.2 Analysis of the Result

Analysis of the Regression Coefficients:

When all the independent variables are equal to zero, the intercept of investment is -48714.02.

A unit increase in interest rate, other variables constant, increases investment by 3146.560 units.

A unit increase in inflation rate holding other variables constant decreases investment by 145.5788 units.

A unit increase in money supply, holding other variables constant increases investment by 0.295473 units.

A unit increase in the gross domestic product, other variables constant, decreases investment by 0.017477 units.

A unit increase in foreign direct investment, holding other variables constant, increases investment by 1.226936 units.

A unit increase in the degree of trade openness, other variables constant, decreases investment by 72288.31 units.

4.2.2.1 Analysis of the Evaluation Methods

4.2.2.2 Evaluation Based on Economic Criteria

This shows whether the expected signs conform to the observed signs. The table below illustrates the situation.

Table 4.2: Economic a priori expectation

Variables	Expected sign	Obtained sign	Conclusion
INR	-	+	Does not conform
INF	-	-	Conforms
MS	+	+	Conforms
GDP	+	-	Does not conform
FDI	+	+	Conforms
DOT	+	-	Does not conform

4.2.2. Evaluation Based on Statistical Criteria

The R^2 (Coefficient of determination):

This is used to check the goodness of fit of the regression model. From the result obtained, the R^2 is 0.974015. This shows that the independent variables explain about 97.4% of the variations in the dependent variable (Investment).

1. t-TEST

The t-test is used to evaluate the significance of the independent variables in the model. Under n-k degrees of freedom (at 0.05 significance level), the critical value is 2.086. The decision rule is to reject H_0 if in absolute values, $t_{cal} > t_{tab}$. Hence, the result of the t-test is shown below:

Table 4.3: t-value

Variables	t_{cal}	t_{tab}	**Decision**
C	-0.202685	2.086	Not significant
INR	0.269526	2.086	Not significant
INF	-0.056665	2.086	Not significant
MS	6.320668	2.086	Significant
GDP	-1.007922	2.086	Not significant
FDI	1.124167	2.086	Not significant
DOT	-0.179122	2.086	Not significant

1. **The F-Statistics Test**

The F-test is used to test for the overall performance of the regression model in terms of its adequacy for forecasting and policy analysis. The decision rule is to reject H_0 if $F_{cal}>F_{tab}$, and conclude that the overall regression is significant at 5% level of significance.

F_{cal} = 6.792076

F_{tab} = 2.60 at 0.05 degrees of freedom

Since $F_{cal} > F_{0.05}$, we reject the null hypothesis and conclude that the model is well specified and adequate for forecasting and policy analysis.

4.2.2.3 Evaluation Based On Econometric Criteria

1. Test For Autocorrelation:

The Durbin-Watson d* statistics would be used to test for the presence of autocorrelation. The decision rule is given below:

Table 4.4: Decision Rule

NULL HYPOTHESIS	**DECISION**	**IF**
No positive autocorrelation	Reject	$0 < d^* < d_L$
No positive autocorrelation	No decision	$d_L \leq d^* \leq d_U$
No negative autocorrelation	Reject	$4-d_L < d^* < 4$
No negative autocorrelation	No decision	$4-d_L \leq d^* \leq 4-d_L$
No autocorrelation positive or negative	Do not reject	$d_U < d^* < 4-d_U$

Given:

d* = Durbin-Watson Stat istic = 1.994115

d_L = Lower boundary = 0.925

d_U = Upper boundary = 1.974

At 0.05 significance level

The decision falls under $d_U < d^* < 4-d_U$(i.e. 1.974 < 1.994115 < 2.026). Thus, we will not reject the null hypothesis, but conclude that there is no positive or negative autocorrelation in the residuals.

2. Test For Heteroscedasticity:

This test was carried out to ascertain the level of distribution of error term (to know whether the variance is constant). This test was carried out using White's heteroscedasticity test (with no cross terms). It follows chi-square distribution with degrees of freedom equal to the number of regressors excluding the constant term.

Test Hypothesis

H_0: Homoscedasticity (If the variance is constant)

H_1: Heteroscedasticity (If the variance is not constant)

The decision rule is to reject H_0 if $X^2_{cal} > X^2_{tab}$.

The calculated X^2 from the Heteroscedasticity Test, the resultis6.792076 while the critical value at 1 degree of freedom is 3.84. Since $X^2_{cal} > X^2_{tab}$, we reject H_0 and conclude that the variance of the error term is not constant.

4.3 Evaluation Of The Research Hypothesis

The hypotheses have earlier been stated as;

Hypothesis 1 (H_o):

There is no factor that determines investment in Nigeria.

Hypothesis 2 (H_o):

There is no relationship between inflation rate and investment in Nigeria.

Conclusion:

Based on the various tests conducted, we reject H_0 of the two hypotheses. From the result gotten, investment is seen to have some significant determinants especially money supply (MS). From t-test carried out, the variable was found to be significant. Also, the f-test indicated that the model is significant in evaluating the determinants of capital formation in Nigeria. Inflation was revealed to have a negative relationship with investment, meaning that an increase in inflation will result to a decrease in investment.

CHAPTER FIVE

SUMMARY, RECOMMENDATION AND CONCLUSION

5.1 Summary

From the result in chapter five, the following findings were made. The following are summarized as follows:

There is a negative but insignificant impact of inflation on investment in Nigeria.

There is a positive and significant impact supply on money supply and investment in Nigeria.

There is a negative but insignificant impact of GDP on investment in Nigeria.

There is a positive and significant impact on foreign direct investment in Nigeria.

There is a negative but insignificant impact on degree of the trade openness and investment in Nigeria.

Based on these above analysis, we observed that investment has casual relationship in Nigeria.

5.2 Recommendation

Due to the influence that money supply has on investment both expansionary and contractionary monetary, policies should be

used effectively in Nigerian economy to regulate money supply which will help control inflationary and deflationary pressure.

Government should increase on capital expenditure than recurrent expenditure because capital expenditure increases investment and they should be increase in trade openness theory allowing the boarders to be open where foreign investors can come and invest which will have a great impact on Nigerian economy.

Policy maker should work hand in hand with the government in formulating, evaluating and implementing new monetary policies that will have a positive impact on the Nigerian economy that will promote investment.

5.3 Conclusion

This study so far, econometrically analyzed the determinant of investment in Nigeria over the period of 1985-2011. The empirical findings have some serious policy implementation, relevant in the growth and development of the investment level in the nation. For the Nigerian economy to break away from its current level of underdevelopment policy maker must recognize the importance of these variables: money supply, trade openness, gross domestic product (GDP), foreign direct investment, inflation, interest rate.

This is because adequate mobilization can play in generating or bringing about productive investment needed for the nation’s current economic development.

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