An Empirical Investigation into Economic Planning in Developing Economies: The Nigerian Experience

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Abstract

Economic planning is a term used to describe the long term plans of an incumbent government to manage the economy. Planning is defined as conceiving, initiating, regulating and controlling economic activity by the state according to set priorities with a view to achieving well-defined objectives within a given time. This study aims to examine critically various development plans in Nigeria and identify those problems that hinder successful implementation of development plans in Nigeria. The study relied on secondary data, as its source of information. Based on the findings that development plans have been accepted as a suitable strategy to address development challenges in Nigeria, this study concludes that the efficacy of our national development plans would be enhanced and serve as a viable instrument of sustainable development if the problems that confront the National Development plans are properly addressed. It is recommended that Nigeria policy makers should be economic plan implementation focused. The economic plan should be grass root design and implemented across the administration's life, it also suggested that the financial plan of the government should reflect the broad plan of the administration. It should also be made of long term period to be productive.

Keywords: Economic planning, Economic Growth, Development Plans, Developing Countries

1. INTRODUCTION

Economic planning has been the bedrock of achieving development objectives in many successful developing countries. Economic planning is a term used to describe the long term plans of an incumbent government to co-ordinate and develop the economy. Economic planning is commonly a feature of the government as it usually involves increased spending on things such as public work schemes and government programs. It is used by government to make economic decisions with respect to the use of resources .Economic planning is the control and direction of economic activity by a central public authority. The level and type of central planning in any economy is generally connected to the sort of political regime that dominates. In recent years, heavily structured economic programs have been associated in particular with socialism, communism, and fascism. Economic planning also became an important part of public policy in nations that did not adopt those doctrines, even in Western capitalist societies where the notion of a free market is a fundamental tenet. Central planning increases are importance during a recession, or any serious economic decline. Planning can involve the use of direct control such as rationing and price, rent and wage limits-or indirect controls, such as monetary and fiscal policy. Economic planning includes:

(i) Discussing the long term future of economic growth, and ways of achieving the growth.
(ii) Meeting social partners such as trade Union leaders to co-ordinate government planning in relation to these partners.
(iii) Organizing committees to create reports and offer recommendations for future economic expansion.
(iv) Ensuring income equity and even economic development.

Critics, who generally tend to be pro Free-market, argue that the only economic planning that government should engage in is providing a framework for the economy to operate, such as sufficient infrastructure and the maintenance of law and order. At the heart of such planning is effective coordination and integration of development policies, whether fiscal, monetary or social, across government. However, despite good intentions that always underpin development strategies, the development plans of many developing economies either fail outright or produce disappointingly average returns (Gumede, 2009). Most especially when the type of economy is a developing one like Nigeria. Over the years, in an attempt to reduce the level of poverty and increase the rate of economic development, Nigeria has embarked on several National Development Plans with feasible objectives: Proponents of economic planning for developing countries argue that the uncontrolled market economy can, and often does, subject these nations to economic dualism, unstable markets, low investment in key sectors, and low levels of employment. In particular, the proponents claim that the market economy is

not geared to the principal operational task of poor countries: mobilizing limited resources in a way that will bring about the structural change necessary to stimulate a sustained and balanced growth of the entire economy. Planning came to be accepted, therefore, as an essential and pivotal means of guiding and accelerating economic growth in almost all developing countries (Todaro and Smith, 2011).

According to Todaro and Smith (2003), that traditionally, economic development connotes the capacity of a national economy, whose initial condition has been more or less static for a long time, to generate and sustain an annual increase in its gross national product (GNP) at rates of perhaps 5 per cent to 7 per cent or more. Then following Iwayemi (2012), Nigeria is one of the fastest-growing economies in the world in the past decade. The remarkable growth narrative is evident in an average annual real growth rate of GDP of over 6 per cent between 2004 and 2012. In 2011, the economy grew robustly at 7.45 per cent. Real per capita income which grew at over 3 per cent per annum in the last five years is also one of the fastest in the world. However, if going by Sen (1985, 1999), "Economic growth cannot be sensibly treated as an end in itself. Development has to be more concerned with embracing the lives we lead and the freedom we enjoy." In the recent time in Nigeria, the robust and sustained economic growth has failed to translate into any net gain in productive employment for the majority of the labour force, especially for the millions of youth joining the labour market each year. The massive joblessness among the youth is increasingly swelling a social underclass which has often fuelled criminality, social tension and insecurity in the country. Also, there is declining well-being and rising poverty level as the impressive and sustained growth has failed to translate into poverty reduction, inclusive growth and development. This observation is substantiated by the significant deterioration in economic prosperity for much of the population based on poverty level and other human development indicators (Iwayemi, 2012).

The significance of this research stems from the necessity of Nigeria as a country to embrace the ideology of economic planning models in the formulation and implementation of its development plans so as to achieve meaningful growth and desired development. Also, due to the fact, as far as we know, that there is hardly a recognized study on planning models in Nigeria, the present work finds relevance in filling this gap by using historical method and quantitative techniques of analysis to examine the rationale for economic development planning model for the country. Essentially, this study is also premised on the desire of Nigeria to effectively combat poverty with a view to attaining the Millennium Development Goals (MDG) and VISION 2020 currently running. Thus, despite the various development strategies that have been introduced and implemented, the country needs a policy measure that will aim at improving the growth rate of per capita income necessary for poverty reduction. Also, since it is imperative that economic planning models are relevant in promoting economic growth and development along the thought of Todaro and Smith (2011), it is worthwhile to explore how planning models are relevant to economic development in Nigeria. Other objectives of economic planning as outlined by Pooja Mehta are as follows:

I. Better utilization of man power resources and increasing employment opportunities.
II. To promote labour welfare, economic development of backward classes and social welfare of the poor people.
III. To achieve economic stability and reducing economic inequalities.
IV. To promote social justice and increase the standard of living of the people.

Consequently, the study seeks to undertake an Empirical investigation into Economic planning in Developing Economies with emphases on Nigerian Experience.

2. LITERATURE REVIEW

2.1 Conceptual framework

According to Dickinson (2008), economic planning is the making of major economic decisions by a determinate authority on the basis of a comprehensive survey of the economy as a whole. Such decisions include what and how much to produce; how, when and where it is to be produced; and to whom it is to be allocated. With reference to underdeveloped countries, Subrata Ghatak defines economic planning as a conscious effort on the part of any government to follow a definite pattern of economic development in order to promote rapid and fundamental change in the economy and society. Osabuohien, Uchenna and Adeleke (2012) indicated that planning simply involves the process and actions taken to drive economic outcomes to expected levels and thus planning even from market oriented perspectives is essential.

According to Otokiti S.O (1999), planning as understood by economists implies centralized control, conscious and deliberate layout of the national resources with a definite end in view, incorporating all economic aspect which is well coordinated and integrated so as to eliminate duplication and wasteful competition. For example as a lay man, putting up a building requires a knowledge of the requirements like sand, gravel, cement, etc , how much it costs, the time it will take to build it and the number of labourers required. Hence proper planning is needed. In the economy, the macroeconomic decision of answering the basic economic problem questions of evenly distributed resources is the pure responsibility of the government which calls for careful strategic planning. Therefore, to plan is to act in the light of a definite predetermined objectives by designing and manipulating of factors which govern the achievement of the given targets so as to attain specific goals within the time limit which the planner sets to achieve. Otokiti (1999), define economic planning as a deliberate control and direction of the economy, by a central authority through various tools and sub-systems within the main system, for the purpose of achieving definite targets and objectives within a specified period of time. On the other hand, Todaro and Smith (2011), define economic planning as a deliberate and conscious attempt by the state to formulate decisions on how the factors of production shall be allocated among different users or industries, thereby determining how much of total goods and services shall be produced in one or more ensuing periods. Jhingan (2011), define economic planning as a deliberate control and direction of the economy by a central authority for the purpose of achieving definite targets and objectives within a specified period of time.

Countries like USA, UK, INDIA, MALAYSIA, and SINGAPORE, carefully took their economic planning formulation and implementation seriously which position them in the place they occupy now in the committee of nations in the world. However, this is not the case with the less developed countries of which Nigeria is one. This has contributed to the level of economic backwardness that is visible in their economies. It is also important to state that there are objectives of economic planning that are available to planners.

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2.1.1 Concept of Economic Plans

Since the end of World War II, it has become an accepted practice among the governments of the developing countries to publish their “development plans.” First and foremost, we have to know how economic plans are developed. Existing and subsisting are wide ranges of economic plans ranging from short-term plans, medium-term plans and long-term plans. Short-term economic plans are easier to achieve than long-term plans mainly because in the longer-term, different implementers will be faced by plans they haven’t initiated and hence lack commitment. The aim is to select a period long enough to include projects spanning a number of budget years but not so long as to delay periodic assessment of the development effort stretching over a series of plans. Political parties when in power usually come to design their own plans, sometimes just for the sake of changing. Usually current planning is based on the happenings of yesteryears. Issues that have been raised by citizens today are incorporated in tomorrow’s plans. Economic planning also emanates to instill discipline among the authorities; agents usually work towards the achievement of set goals and follow a defined path. National resources, whether abundant or not have to be distributed to the benefit of all. Efficient allocation of resources cannot be done discretionally, time has to be allocated and ways to achieve that be tactfully designed. Also to enhance stability in the economy a plan has to be in place. Left alone the economy will experience fluctuations and hence smoothening is appropriate through making a plan ahead. According to Ukertor (2012), the ultimate aim of governments worldwide is to achieve sustainable improvement in the quality of life of its citizenry. Hence, countries no matter their size or developmental status strive to achieve some level of consistency in development planning and good governance. However, Ukertor (2012) insisted that achieving the goals of governance requires that deliberate plan of action be set out to guide government throughout the process.

2.1.2 Essentials of Economic Planning

Policies are products of planning. Thus, the fundamental need for planning is to achieve the set of macroeconomic objectives, which includes rapid economic growth and development, price stability, maintaining favourable external balance, reduce unemployment and so on (Iyoha, 2004; Aigbokhan et al, 2007). The development plan attempts to promote economic development in four main ways:

(i) By assessing the current state of the economy and providing information about it;

(ii) By increasing the overall rate of investment;
(iii) By carrying out special types of investment designed to break bottlenecks in production in important sectors of the economy; and
(iv) By trying to improve the coordination between different parts of the economy.

According to Arthur Lewis, a development plan may consist of the following parts:

i, Survey of current economic conditions
ii. List of proposed public expenditures
iii. Discussion of likely development in private sector
iv. Macro economic projections of the economy
v. Review of government policies.

This shows that there is need for economic planing by any government for the smooth development of the nation. Issues of poverty and unemployment need to be addressed through good policies. Issues of food security, education and health also require attention through economic planning.

2.1.3 Assessing Economic Plans

Measuring performance in the private sector is straightforward, just simply subtract how much it costs you to make something from how much you sell it for and there's your profit, Burchett (2010). Measuring performance in the public sector will never be as straightforward as measuring that in the private; it's a far less exact science than reading the bottom line of a profit-and-loss sheet. But that's the subjective and emotionally-charged nature of the public sector's often crucial work in an ever changing world. Economic planning is done just to offer as a standard of measuring efficiency. An economic plan comprises of objectives, targets and ways of achieving the targets. Given that failure or attainment of what is in the plan results in an assessment. Surpassing target indicating efficiency and falling below the target indicate inefficiency. However, at this point, it is important to note that there is a possibility of making a plan that is easily achievable, and in that case surpassing target will no longer mean efficiency. A good economic plan should not be easily achieved, rather it should be challenging.

As supported by Burchett (2010), the bottom line for public sector performance is to empower and trust public servants to serve the pig some hearty portions and let government weigh it only at the village fete, thus public sector productivity as part of overall productivity. It is natural and unavoidable that measurement of public output and productivity, for this purpose, should take place within the well-developed framework of national accounting. The performance of government, and of the services that it finances, are a major contributors to societal wellbeing. Many governments adopt performance measurement precisely because the political governing body has demanded it as a means to strengthen accountability. The problems facing government today, and the programs we use to address them, are many and complex. Politicians are elected to make policy decisions. So in providing performance information to them, it is not enough simply to report work process output and efficiency data.

2.1.4 Reasons for failure of Economic Plans

An economic planning, especially made by the government involves cooperation with the private sector. If the private sector fails to cooperate whether deliberately, or in any way, the plans will not succeed. The issue of credibility of the government authorities will now matter in this case. The private sector and all economic players should have confidence with the government. Credibility can be regained through consistency in policy making and implementation. Poor timing of events is also a contributing factor to failure of economic plans. This mainly results from lags in the planning process. It takes time for government to act and this is caused by long bureaucratic channels of communication. Poor implementation of instruments can also be cited. Sometimes economic plans designed by government involve game theoretic approaches with the private sector. The success will then depend on the model used by the government to represent the behavior of economic players. However, in many cases the private sector is more informative and hence offering a great challenge to government authorities. Economic agents are rational, and hence have rational expectations rather than being adaptive or naïve. Natural disasters usually interrupt with economic planning offering great definite challenge, because it is difficult to

predict natural disasters. Lack of information on the part of the government, may lead to the failing of economic plans. On the part of the government, information lags are highly present and hence implementation of plans is a great challenge. In many cases, economic plans are designed with no definite adequate resources to support the planning and implementation process. Hence the issue of blue print comes around. Good economic plans are designed but will never be achieved due to unavailability of resources.

Political influence is also a major factor to be considered, being noted by Krueger in the 1990s in his analysis of government failure in development. This involves the interruption of economic activities running smoothly by political interference for political benefit. This, in many cases, is not avoidable. If so, it will be very hard to prevent political interruption to economic plans. It has been noted that economic plans are not designed by economic experts, rather by politicians, despite consultative steps taken by politicians. Due to this fact, the plans will eventually fail, just because they lack economic principle behind. Fraud and corruption are also high in the government sector. According to Randal (2007), private plans are flexible and can be happily changed when new information arises. This is in contrast to government plans because as soon as a government plan is written, people who benefit from the plan form special interest groups to insure that the plan does not change no matter how costly it proves to be to society as a whole. Hence, the plans will lack support and eventually won't deliver to the desired results.

2.1.5 Ways to avoid failure of Economic Plans

An important tool to have successful projects is to have a well-functioning monitoring and evaluation device or strategy. In most governments monitoring and evaluation is very slow and very untimely. This on its own will channel available resources to informal sectors and hence making achievement of goals a challenge. Consultation is crucial in the planning process. However, having a wide coverage of consultation in the planning process will not necessarily result in having a better economic outcome, when the needed frameworks such as institutional quality are not in congruence. When the planning process involves low consultation and weak institutions, there will be 'shallow' planning with its resultant effect: poor economic outcomes. Therefore in this case, minimal coverage and low consultation in the planning process will not be adequate to support desired outcomes. This may also worsened by weak institutions. According to Birchall spending ignorance exist, implying that, without price and profit signals, there is little information for decisions, without the safeguard of competition better alternatives are not discovered, without individual choice the "common good" is an arrogant imposition benefiting vested interest groups and without the magic of private property, the discovery of successful technological and institutional innovation is not rewarded efficiently.

Hossein, Kirkpatrick and Parker (2006) indicated that building effective regulatory structures in developing countries is not simply an issue of the technical design of the most appropriate regulatory instruments; it is also concerned with the quality of supporting regulatory institutions and capacity. "Good performance management can help Departments improve their effectiveness and promote accountability to public and Parliament. - Sir John Bourn, (2001). Regulation can take many forms and the form of regulation policy adopted in developing countries has shifted over time (Minogue, 2005). From the 1960s to the 1980s, market failure was used to legitimize direct government involvement in productive activities in developing countries, by promoting industrialization through import substitution, investing directly in industry and agriculture, and by extending public ownership of enterprises. However, following the apparent success of market liberalization programs in some developed countries, and the evidence of the failure of state-led economic planning in developing ones (World Bank, 1995), the role of state regulation was redefined and narrowed to that of ensuring an undistorted policy environment in which efficient markets could operate.

2.1.6 Nigeria's Economic development plans

The Nigerian experience as regards development planning can be discussed in the light of Long, Medium, and Short term plan in the version of perspective, fixed and budgetary plans. Nigeria has embarked on several National Development Plans with feasible objectives: from the first plan (1962-1968) to the fifth (1988-1992) and then the rolling plans (1990-1992). Strategies like National Poverty Eradication Programme (NAPEP), National Economic Empowerment and Development Strategy (NEEDS), VISION 2010, millennium Deployment Gold (MDG) 2015, and the newly introduced

Financial System Strategy (FSS) 2020 and Subsidy Reinvestment Programme (Sure-P) were also introduced and implemented.
Proponents of economic planning for developing countries argue that the uncontrolled market economy can, and often does, subject these nations to economic dualism, unstable markets, low investment in key sectors, and low levels of employment. In particular, the proponents claim that the market economy is not geared to the principal operational task of poor countries: mobilizing limited resources in a way that will bring about the structural change necessary to stimulate a sustained and balanced growth of the entire economy. Planning came to be accepted, therefore, as an essential and pivotal means of guiding and accelerating economic growth in almost all developing countries (Todaro and Smith, 2011). If going by the words of Todaro and Smith (2003), that traditionally, economic development connotes the capacity of a national economy, whose initial condition has been more or less static for a long time, to generate and sustain an annual increase in its gross national product (GNP) at rates of perhaps 5 per cent to 7 per cent or more. Then following Iwayemi (2012), Nigeria is one of the fastest-growing economies in the world in the past decade. The remarkable growth narrative is evident in an average annual real growth rate of GDP of over 6 per cent between 2004 and 2012. In 2011, the economy grew robustly at 7.45 per cent. Real per capita income which grew at over 3 per cent per annum in the last five years is also one of the fastest in the world. However, if going by Sen (1985, 1999), "Economic growth cannot be sensibly treated as an end in itself. Development has to be more concerned with embracing the lives we lead and the freedom we enjoy." In the recent time in Nigeria, the robust and sustained economic growth has failed to translate into any net gain in productive employment for the majority of the labour force, especially for the millions of youth joining the labour market each year. The massive joblessness among the youth is increasingly swelling a social underclass which has often fuelled criminality, social tension and insecurity in the country. Also, there is declining well-being and rising poverty level as the impressive and sustained growth has failed to translate into poverty reduction, inclusive growth and development. This observation is substantiated by the significant deterioration in economic prosperity for much of the population based on poverty level and other human development indicators (Iwayemi, 2012). The significance of this research stems from the necessity of Nigeria as a country to embrace the ideology of economic planning models in the formulation and implementation of its development plans so as to achieve meaningful growth and desired development. Also, due to the fact, as far as we know, that there is hardly a recognized study on planning models in Nigeria, the present work finds relevance in filling this gap by using historical method and quantitative techniques of analysis to examine the rationale for economic development planning model for the country. Essentially, this study is also premised on the desire of Nigeria to effectively combat poverty with a view to attaining the Financial System Strategy (FSS) 2020. Thus, despite the various development strategies that have been introduced and implemented, the country needs a policy measure that will aim at improving the growth rate of per capita income necessary for poverty reduction. Also, since it is imperative that economic planning models are relevant in promoting economic growth and development along the thought of Todaro and Smith (2011), it is worthwhile to explore how planning models are relevant to economic development in Nigeria.

The Nigerian experience as regards development planning can be discussed in the light of Long, Medium, and Short term plan in the version of perspective, fixed and budgetary plans. Essentially, the recent epoch of national development plan in the country dates back to the period after the Structural Adjustment Programme (SAP). As an opportunity for revaluating the planning system, the government introduced a new planning proposal which consisted of a fifteen to twenty-year perspective or Long-term Plan, a three-year Rolling Plan, and an Annual Budget that was to draw from the Rolling Plan (Okojie, 2002). As a significant innovation, following from the criticism in the form of lack of administrative utility for the implementation of plans (Marcellus, 2009), vagueness (Okojie, 2002), and no constitutional significance (Abasili, 2004) in the previous plans, the Perspective Plan was conceived to be more specific and elaborate. Though scheduled to take effect from 1990 along with the Rolling Plan, the ideology of a perspective plan was actually implemented in 1996 as a result of the setting up of a committee for Vision 2010. The Vision was to provide, as a recommendation, the focus for all plans, including the rolling and annual plans. The country's First national Rolling Plan (1990-1992) came into force in 1990 with the objective to afford the country the opportunity to revision in the midst of increasing socio-political and economic uncertainties. This supposedly medium-term plan, however, turned out to be an annual event which became almost undistinguishable from the annual budget.

According to Okojie (2002), Rolling Plans have been prepared yearly at all levels of government including the local government level. Such that, at the end of about ten Rolling Plans from 1990 to 1999, Nigerians are no better off than they

were during the years of fixed medium-term planning. The fixed medium-term planning in Nigeria commenced with the First National Development Plan (1962-1968). It was followed, after the civil war, by the Second National Development Plan (1970-1974), the Third National Development Plan (1975-1980) and the Fourth National Development Plan (1981-1985). After a three-year brake which resulted from the Coup D'état that overthrew the country's second civilian administration in 1983 and a military government in 1985, the Fifth National Development Plan was rescheduled for the period 1988-1992.

However, in late 1989, the then military government, headed by General Ibrahim Babangida abandoned the concept of a fixed five-year plan with the introduction of a three-year rolling plan in the context of more comprehensive fifteen to twenty-year plans. Infact, national planning experience in Nigeria predates the 1960s. It was the period when planning activities were purely a function of the colonial administrators. Although not comprehensive in scope and depth, the foremost national plans in the country include the Ten-year Plan of Development and Welfare for the period 1946-1955, and the 1955-1960 Plan which, however, was extended to 1962. Nevertheless, as observed by the authors of the First National Development Plan (1962-1968), the pre-1960 plans were no plans in the true sense of the word. They were rather a series of projects which had been coordinated or related to any overall economic target. In essence, probably it was as a result of oversight or a deliberate action that all the planning documents thus far released in Nigeria have been silent on the Planning models employed or adopted. Thus, it has always been a difficult exercise to quantitatively assess the performance of any economic plan in Nigeria vis-à-vis the goals and objectives.

Currently, Nigerian economic planning of VISION 2020; Financial System Strategies (FSS) and the borrowing from China and World Bank loans are running to bring about infrastructural development and employment generation to unemployed. All these are geared toward economic growth and development. According to Prof. Nyaudoh Ndaeyo, It is worrisome that the debt profile of Nigeria by way of loans keeps on rising without corresponding benefits. The most unfortunate situation is that some of these loans so taken have not been translated into changes in terms of infrastructure or being used to enhance the welfare of the masses. I agree to the fact that one could take a loan to develop a facility that can change the lives of the citizenry, but ours does not seem to be so. That is why all well-meaning Nigerians should be worried about the issues of government taking loans from outside. But having said that, at times certain people may say we want to take loans like the one we are talking about from China. They may say, ok, we want to give you in kind or in cash or both, to the extent that they may say they want to send expatriates to come and do some work (maybe road construction or other infrastructure they want to develop), but before you know it, the very loan that has been so taken by the country may have to be taken away by way of bringing in the expatriates, amounting to giving with one hand and taking it with the other hand. So, if it is going to be so, I will not encourage it. Let me emphasise also that when we talk about loans, it shall not be a unilateral thing. There should be a committee, a platform where people discuss effectively on the merits and demerits of taking a given loan. So, for me, if they are going to put it right by developing infrastructure like the Ajaokuta Steel Complex or some other projects, good, but if it will also go down the drains as we had seen in some past administrations, then I will not encourage them to take the loan.

According to Enang Udah, This will all depend on where we are using the loans for. Getting a loan is not actually a problem, but where is it channeled to? Is it infrastructural development or services that can pay back for domestic consumption? Whether we get loan from the World Bank or the Chinese does not matter. In fact, Chinese loans attract lower interest rates, but we must be mindful of where we are putting the money. The money is not for politics or other frivolities, which of course will not yield any return. However, if the money is invested in structures that can guaranty returns and you calculate the payback period and the loan pays back itself, there is no problem. It is always difficult to see where they are investing it in. For instance, they keep telling you that they are investing in road construction, but it hardly translates to reality because we hardly see the roads. Where are the roads they have been constructing over the years? We have heard of billions of naira being spent on road construction year-in year-out, where are the roads? We drive to all parts of the country, so, you will always wonder where the so-called massive road constructions are. The only good road you can locate in the southern part of Nigeria is Onitsha-Benin-Ore and Benin-Effurun-Ughelli. We need to see where the money is going into.

According to Femi Dagunro, (a former President, Nigerian-German Business Group), It is healthy if well managed. The Chinese President said that the loan was not for frivolous projects. What the Chinese government is doing is to assist us

develop our infrastructure. So, it is left for us and some other African countries not to waste the money on vanity projects. We should invest in projects that will give us lifetime development. If we could not achieve the Millennium Development Goals due to problems associated with funding and now we have funding, we should do something for this country. African leaders should begin to know that we hold ourselves responsible first for what we plan and for the future of our continent. To me, it is a welcome development, if it us well managed, and well spent. It should not be loan to be spent on projects that will not be accounted for. I think the Chinese will ask questions on how the fund will be spent. I know they will not just give you cash to start buying luxurious and frivolous things that are not geared towards development. I know that they will insist that the loan be well managed and spent. The loan is not for free.

2.1.7 Economic planning, Economic Growth and Development

The process of economic planning, growth and development and the various economic reforms in Nigeria had witness several plans by different successive government. Economic growth is measured in terms of increase in the Gross Domestic Product (GDP) or Gross National Product (GNP). Different theories for the process of economic growth are explained under the classical model and the Neo-classical models. Economic development involves a change in social attitudes, cultural set-up and institutional framework along with the economic growth. The scope of coverage of economic growth is narrow and economic development is more comprehensive. The major factors which influence the economic development of a country are natural resources, human resources, capital formation and technical knowledge. Economic planning has a significant role to play in economic growth and stability of a country. It helps an underdeveloped country to get out of the vicious circle of underdevelopment. For a developing economy like Nigeria, appropriate economic planning is very important for economic growth. The prominence and significance of economic planning for Nigeria was highlighted by the economic crisis in encountered by various administrations. As a measure to resolve the crisis, economic reforms were taken up by the Nigerian government. The major reforms were in the sectors of industrial, financial, trade, and public sectors.

The opening up of economy provided impetus to Nigeria to gain from the process of globalization. However, the future economic status of Nigeria depends a great deal on the changes on the fronts of population growth, foreign exchange reserves, the financial system in India, and the tackling of unemployment in the country. When economic plans are well articulated and developed, it will bring about rapid economic growth which will lead to economic development of a country in the area of: industrialization, agriculture, infrastructures and employment which will increase the standard of living of the Nation.

2.2 Empirical Review

A major factor in the development progress in the post Second World War (WWII) has been steady and has integrated the global economies. World Bank (1996) has estimated that the world GDP since then have grown by approximately 25 times. Other measures of globalization include the enormous expansion of international financial markets, the spread of new technologies that have revolutionized international communications and encouraged the development of transnational patterns of production and consumption. Also, foreign direct investment flowing to developing and transition economies was increased four-fold over the past decade (World Bank, 1996)

The Human Development Report (HDR) of UNDP 1997 showed that in developing countries as a whole, balanced economic growth has enabled giant strides in key indicators of human development since 1960: infant mortality rates have reduced by one half and adult illiteracy rates have increased by nearly one half. Since 1975, the rate of underweight children under 5 years of age declined by almost one half. In the midst of high growth rate of world economy, there existed wide variation among the countries. According to CIA World Fact book 2011, the world economy has increased by 3.7% in 2010-11. Among the countries, the highest growth rate was Qatar with 18.7%, while ten countries have exhibited negative growth, of which Greece has witnessed highest negative growth with -6%. Among the East Asian countries, Mongolia (world ranking - third) and China (world ranking - sixth) showed the highest growth rate with 11.5% and 9.5% respectively. In South Asia, the highest growth was Sri Lanka (world ranking - 8) with 8.3%, followed by Bhutan (world rank - 11) and India (world rank - 13) with 8.1% and 7.8% respectively. Tang et al (2008) conducted a study on how foreign direct investment has helped the growth of China's economy since the economic reforms in the country with time series data for 30 years since 1978. They have brought a conclusion that there has been tremendous economic growth since

the country's economic reforms. It has grown at a considerable rate as compared to the rest of world. The economic growth of China since 1978 has increased exponentially at an annual average rate of 9%

Bhattacharya and Shikthivel (2004) in the study of regional growth and disparity in India have shown that the growth rate of GDP has accelerated since 1980s in the country. The average annual GDP growth rate in the first three decades (1950s to 1980s) was only 3.6%. Since then, the GDP growth rate accelerated to 5.6% during 1980s and after economic reforms in the 1990s, it has further accelerated to 6.0%. The reforms have led to a lot of structural changes in Indian economy, such as deregulation of investment - both domestic and foreign, liberalization of trade, exchange rate, interest rate, capital flows and prices. The post reform period too witnessed a sharp deceleration of public investment due to fiscal constraint, which declined from 45% to 33% in 1980s and 2000s respectively.

In a similar study, Kurian (2000), Showed that the growth of India economy, which was 3.6% in the first three decades ofindependence, was quite impressive as compared to other Asian economies. Since 1980, the growth of India's economy has been enormous during the sixth five year plan (1980-85) with 5.6%; in the seventh five year plan (1985-90), it was increased to 6%. But during two-year period 1990-92 in the wake of international payment crisis and the introduction of major economic reforms the growth was slashed down to 3.1% per annum. Since then, the growth has picked up at a faster rate that during eight five year plan (1992-97), the growth was at 7.5%.93 During ninth, tenth and eleventh five year plans, the growth rate was increased at 5.35%, 7.7% and 7.9% respectively.

In general, when economy progressed, the share of primary sector declined and that of the secondary sector increased. After industry gathered momentum, the secondary sector became the dominant sector in the economy. It is only at a later stage when the economy attained a fairly high level of development. Typically when it became a middle-income country, the tertiary sector overtook the secondary sector. This was the general pattern of development, especially in the East Asia countries. In China, for instance, the secondary sector now contributes almost 50% of GDP. However, the India experience showed a different pattern of sectoral growth that both at the national and regional levels. The tertiary sector became the largest sector even before the secondary sector predominated the economy. Gujarat is the only exception in this respect, where the secondary sector has become the largest sector with more than 40% share in SDP in 1999- 2000, for which the momentous was raised by 7.8% and 10.6% in 1980s and 1990s respectively (Bhattacharya and Mitra, 1990).95 According to Economic Survey of India 2011-12, the Indian economy is estimated to grow by 6.9% in 2011-12. The same report showed that the share of India in global merchandise exports has increased from about 0.5 per cent in 1990 to 1.5 per cent in 2010. Among the sectors, the services sector continued to be a star performer as its share in GDP has climbed from 58% in 2010-11 to 59% in 2011-12 with a growth rate of 9.4%. Similarly, agriculture and allied sectors are estimated to achieve a growth rate of 2.5% in 2011-12, while the industrial sector has performed poorly, retreating to a 27% share of the GDP.

Fedorov (2002) studied the regional inequality and regional polarisation in Russia of 1990s. The result has shown that the transition period due to economic reform has been characterised by rapid growth of economic inequality among regions. Similarly, in Ghana, Vanderpnye-Orgle (2002) showed that during the period of stabilisation and structural adjustment programmes (1987-1999), the trend of regional disparities witnessed the corrugated shape. The regional disparities has decreased in the first stage of reform period (during late 1980s) and then declined in the early 1990s before rising up in the late 1990s.

Antonyrajan (2003) also attempted to study whether the regional growth is convergent or divergent between prosperous and the depressed regions after economic liberalisation (1977) period in Sri Lanka. He took 39 indicators, disaggregated into five sectors such as education, health, industrial, agriculture and infrastructure. He observed that during pre-liberalisation period (1960-1980), 21 indicators have exhibited convergence, while in post-liberalisation period (1980-2000), only 10 indicators converged in regional disparities. Hence, in general, the regional disparities in Sri Lanka have widened during post-liberalisation era.113 In most of the countries, it is a common phenomenon that there is vast regional disparity within the country. For instance, Fukuda-Parr et. al. (2005) observed that there was significant disparity in Brazil. During 1970, they found that the South East's HDI (0.619) was more than double to that of North East (0.245). Again in 1990, it was 0.799 for the South, while the same for the Northeast was only 0.474.114 Also, in Uganda (2007), the HDI value for the states like Wakiso (0.660) and Kampala (0.644) have more than 3 (three) times higher than the state Moroto (0.216) and more than 2 (two) times the states of Kabong, Abim and Kotido (0.292 each)

2.3 Theoretical Framework

2.3.1 Economic Planning Models

According to Jhingan (2011), a model expresses the relationships among economic variables which explain and predict past and future events under a set of simplifying assumptions. In other words, a model consists of a series of equations each of which represents the association among certain variables. Planning Model therefore is a series of mathematical equations which help in the drawing up of a plan for economic development. Jhingan M.L (2011). On the otherhand, Otokiti S.O (1999) views an economic model as an organize set of relationships, that describes the functioning of an economic entity whether it concerns, the individual, house hold or firm, the local government system, the regional or national economies, or the world economy under a set of simplifying assumptions. He also posits that in the context of planning economic models provide a logically, systematic and internally consistent operational framework, based on structural inter-relationships of sets and participants in the economy under consideration. A planning model, in other words sets out the relationship between the crucial (key) variables in the process of planned economic development within the stipulated time horizon of the plan. You should also know that most planning models belong to the category of what are known as decision or policy models. In these models a set of plan objectives is specified, policy measures to achieve these objectives are isolated and their interrelationship worked out. It is imperative to let you know that model may have endogenous and exogenous variables. Endogenous variables are those whose values are determined from within the system, examples of such are national income, consumption, savings, investment etc. On the other hand, exogenous variable are determined from outside the system, Examples of such are prices, exports, imports, technological changes etc. The relationships between endogenous and exogenous variables are aim at ensuring the consistency of the proposed plan for economic development. It is also meant to yield an optimally balanced collection of measures known as Model Targets which can help the planning authority in the drawing of an actual plan.

2.3.1.1 Aggregate growth Macroeconomic (Simple Models)

The first category is the aggregate growth, macroeconomic or simple models which involves macroeconomics estimate of planned or required changes in principal economic variables. It deals with the entire economy in terms of a limited set of macroeconomic variables deemed most critical to be determined by levels and growth rates of national output; that is savings, investment, capital stock, exports, imports, foreign aid etc. The model provides a convenient method for forecasting output (and perhaps also employment) growth over a three to five year period. Harrod Domar and two gap models are of this type.

2.3.1.2 Multi-sector Models

The second category is the multi-sector models. Multi-sector include input-output, social accounting and computable general equilibrium (CGE) models which ascertain among other things, the production, resources, employment and foreign exchange implication of a given set of final demand targets within an internally consistent framework of inter-industry product flows. It is a sophisticated approach to development planning in which the activities of the major industrial sectors of the economy are interrelated by a means of a set of simultaneous algebraic equations expressing the specific production processes or technology of each industry. All industries are viewed both as producers of outputs and users of inputs from other industries. For example, the agricultural sector is both a producer of output e.g. (wheat) and a user of input from the manufacturing sector e.g. (machinery, fertilizer), therefore there is interdependence of industry which could lead to direct and indirect repercussions of planned changes in the demand for the products of any one industry on outputs, employment, and imports of all other industries can be traced throughout the entire economy in an intricate web of economic interdependent. This inter-industry model can be used to determine intermediate material, import, labour and capital requirements with the result that a comprehensive economic plan with mutually consistent production levels and resource requirements can in theory be achieved.

2.3.1.3 Decentralized models

The third stage or category of planning models is the decentralized models. It is the type that have sector of project level variables which are used to prepare models for individual sectors or projects. This type of models are useful in the early

stages of a country's economic development when information is available for only individual sectors or projects, project evaluation or project appraisal and social cost benefit Analysis are techniques that fit into this category. The most important component of plan formulation is the detailed selection of specific investment projects within each sector through the decentralized models.

2.3.2 Classical Theories of Economic Development Planning

Some of the theories of development planning as applied by some economies of the world and its reflections as stated by Dang and Pheng Sui (2015) in their paper " Infrastructure Investments in Developing Economies".

2.3.2.1 The Linear Stages of Growth Theories

The first generation of economic development models was formulated in the early years after the World War II. These early models focused on the utility of massive injections of capital to achieve rapid GDP growth rates. The two famous models are Rostow's stages of growth model and the Harrod–Domar model (Todaro and Smith, 2009). Theorists of the 1950s and early 1960s viewed the process of development as a sequence of historical stages. This view was popularized by Rostow(1995). Building on the historical pattern of the then developed countries, Rostow (1960) claimed that the transition from underdevelopment to development would pass through five stages: the traditional society, the preconditions for take-off, the take-off, the drive to maturity and the age of high mass consumption. The decisive stage is the take-off, through which developing countries are expected to transit from an underdeveloped to a developed state. Increasing rate of investments is considered to be necessary to induce per-capita growth. Like Rostow's stages of growth model and the Harrod–Domar model emphasized that the prime mover of the economy is investments. Every country therefore needs capital to generate investments. The principal strategies of development from the stage approach were commonly used by developing countries in the early post-war years. With a target growth rate, the required saving rate can then be known. If domestic savings were not sufficient, foreign savings would be mobilized. Every economy is assumed to have the same necessary conditions and would pass through the same phasing, stage by stage. But that economic growth path, which historically had been followed by the more developed countries, is not the only one pathway. The development process is actually highly nonlinear according to Chenery (1960). Countries may pursue distinct development paths, economies may miss stages, or become locked in one particular stage, or even regress depending on many other complementary factors such as managerial capacities, and the availability of skilled labour for a wide range of development projects (Todaro and Smith, 2009)

2.3.2.2 Structural Change Theories

During most of the 1960s and early 1970s, economists generally described the development process as structural change by which the reallocation of labour from the Agricultural sector to the industrial sector was considered the key source for economic growth. Two well-known representatives of this approach are the two-sector model of Theories of Economic Development model Lewis. (1954) and the structural change and patterns of development (Chenery, 1960). In Lewis' (1954) two-sector model or theory of surplus labour, labour increasingly moves away from the agricultural sector to the industrial sector. However, with unlimited supply of labour from the traditional sector, these transferred workers continually received only subsistence wages. The excess of modern sector profits over wages and hence investments in the modern sector continued to expand and generate further economic growth on the assumption that all profits would be reinvested. Both labour transfer and modern sector employment growth were in turn brought about by output expansion in that sector. This process of modern sector self-sustaining growth and employment expansion facilitated the structural transformation from a traditional subsistence economy to a more modern developed economy to take place. Like the Harrod–Domar model, the Lewis model considered savings and investments to be the driving forces of economic development but in the context of the less developed countries. However, several Lewis' assumptions are not valid such as those relating to rural surplus labour, and the proportional rate of expansion in capital accumulation in the modern sector (Todaro and Smith, 2009).

Although promoting the roles of savings and investments, the structural change and patterns of development analysis extended in comparison with the Lewis model. The analysis identified that the steady accumulation of physical and human capital is among the conditions necessary for economic growth, apart from savings and investments. By focusing on the pattern of development rather than theory, the structural change models may mislead policy-makers. Since the reallocation of labour from the agricultural sector to the industrial sector is considered the engine of economic growth, many developing countries implemented policies that often promote the industry and neglect agriculture. But the negative effects of policies that turned against that vital sector have come to be widely recognized World Bank,(2000). Criticisms of these models were reinforced by the fact that in many developing countries, poverty was prevalent.

2.3.2.3 International Dependence Theories

The international dependence theory was very popular in the 1970s and early 1980s. The dependence theorists argued that underdevelopment exists because of the dominance of developed countries and multinational corporations over developing countries. The theory is considered an extension of Marxist theory Hein, (1992). The poor countries are said to be dependent on the developed countries for market and capital. However, developing countries received a very small portion of the benefits that the dependent relationship brought about. The unequal exchange, in terms of trade against poor countries, made free trade a convenient vehicle of "exploitation" for the developed countries. Developed countries can exploit national resources of developing countries through getting cheap supply of food and raw materials. Meanwhile, poor countries are unable to control the distribution of the value added to the products traded between themselves and the developed countries. The growth of international capitalism and multinational corporations caused poor countries to be further exploited and more dependent on the developed countries. Poor countries therefore could not expect sustained growth from that dependence. Following the international dependence theory, developing countries should therefore end the dependence by breaking up their relationships with the developed world, as well as by closing their doors on the developed countries (Elkan 1995; Ghatak 2003; Ferraro 2008). The models gained increasing support among the developing countries because of the limited results of the stages and structural change models. However, the failures of the model were clearly reflected in the developing countries that followed the autarky policy. These countries often experienced stagnant growth and finally decided to open their economies once again such as China, Tanzania and India (Ferraro 2008; Todaro and Smith, 2009). Meanwhile, the experience of the newly industrialized economies of East Asia, namely Hong Kong, Singapore, Malaysia, Taiwan and South Korea, during the 1970s and 1980s showed that their success had been the result of emphasizing trade with the advanced industrial countries. The negative impacts of the policy of autarky rendered the theory out of favour in the 1980s.

2.3.2.4 Neoclassical counter-revolution Theories

In the 1980s, neoclassical counter-revolution economists used three approaches, namely the free market approach, the new political economy approach and the market-friendly approach, to counter the international dependence model. In contrast with the international dependence model, these approaches mainly argued that underdevelopment is not the result of the predatory activities of the developed countries and the international agencies but was rather caused by the domestic issues arising from heavy state intervention such as poor resource allocation, government-induced price distortions and corruption Meier. (2000). As a response to public sector inefficiency, economists of the counter-revolution thinking, for example Bauer (1984), Lal (1983), Johnson (1971), and Little (1982), focused on promoting free markets, eliminating government-imposed distortions associated with protectionism, subsidies and public ownership. Neoclassical economists focused on the market to find a way out for the developing countries. Policies of liberalization, stabilization and privatization therefore become the central elements of the national development agenda. Foreign trade, private international investments and foreign aid flowing into the developing countries were expected to accelerate economic efficiency and economic growth of these countries. Empirically, the models, however, did not bring about the expected results. The growth rates per capita have diverged among countries Azariadis and Drazen (1990). Several African countries focusing on these issues achieved an average growth rate of only 0.5 % per year. With weak and inadequate legal and regulatory framework, not to mention the different institutional, cultural and historical context of the developing countries, free market in these countries failed to stimulate economic development (World Bank, 2000).

2.3.2.5 The new growth theory

Endogenous growth or the new growth theory emerged in the 1990s to explain the poor performance of many less developed countries, which have implemented policies as prescribed in neoclassical theories. Unlike the Solow model that considers technological change as an exogenous factor, the new growth model notes that technological change has not been equal nor has it been exogenously transmitted in most developing countries World Bank,(2000). New growth theorists (Romer 1986; Lucas 1988; Aghion and Howitt 1992) linked the technological change to the production of knowledge. The new growth theory emphasizes that economic growth results from increasing returns to the use of knowledge rather than labour and capital. The theory argues that the higher rate of returns as expected in the Solow model is greatly eroded by lower levels of complementary investments in human capital (education), infrastructure, or research and development (R&D). Meanwhile, knowledge is different from other economic goods because of its possibility to grow boundlessly. Knowledge or innovation can be reused at zero additional cost. Investments in knowledge creation therefore can bring about sustained growth. Moreover, the knowledge could create the spillover benefits to other firms once they obtained the knowledge. However, markets failed to produce enough knowledge because individuals cannot capture all of the gains associated with creating new knowledge by their own investments. Policy intervention is thus considered necessary to influence growth in the long term. The new growth models therefore promote the role of government and public policies in complementary investments in human capital formation and the encouragement of foreign private investments in knowledge-intensive industries such as computer software and telecommunications (Meier, 2000).

Although the new growth theory helps to explain the divergence in growth rates across economies, it was criticized for overlooking the importance of social and institutional structures (Skott and Auerbach, 1995). Its limited applicability lies in its assumptions. For example, it treats the economy as a single firm that does not permit the crucial growth-generating reallocation of labour and capital within the economy during the process of structural change. Moreover, there are many other factors which provide the incentives for economic growth that developing countries lack such as poor infrastructure, inadequate institutional structures and imperfect capital and goods markets (Cornwall and Cornwall, 1994). Policy-makers will therefore need to pay careful attention to all of the factors that determine the changes and their impacts on the aggregate growth rat**e.**

2.3.2.6 Theory of Coordination Failure

The foundation of the theory of coordination failure is the idea that the market may fail to achieve coordination among complementary activities. When complementary exist, that is when returns of one investment depend on the presence or extent of other investments, there exist two scenarios. On the one hand, optimally, all investors as a whole are better off with all investments to be achieved at the same time. On the other hand, it would not make sense for an investor to take similar actions when he believes that others may not do the same as well. The market is said to have failed to coordinate investors' actions in this way. Coordination failure therefore leads the market to an (equilibrium) outcome inferior to a potential situation in which resources would be optimally allocated and all agents would be better off. As a result, underdevelopment equilibrium is possible Hoff and Stiglitz, (2000). The theory of coordination failure became influential in the 1990s.

3. METHODOLOGY

The research adopted for this work is the non-experimental research design. The reason is that non- experimental research design combines the conceptual exposition with theoretical observation. The data for this research study were adequately sourced using the secondary methods of data collection basically from National planning publications, journals, magazines, newspapers, internets and other relevant publications. Basically, economic models are frequently used to construct economic planning and for the fact that such models should have the dual characteristics of clarity and consistency aside the property of being selective so that only the behaviour of the major variables is analysed, and quantified, two models are, therefore, selected for the main reasons of analysis of inter-industry relationship and efficient allocation of resources. The models are described as follows.

3.1 The Input-Output Model

The use of input-output technique in development planning has become quite noticeable as it delineates the general equilibrium analysis and the empirical side of the economic system of production of any country. It was developed by the

work of Leontief (1951 & 1986). The assumption of the model requires that to produce one unit of the *j*th good the required *i*th input would be constant as, say, a_{ij} . That is, the production of each unit of the *j*th good would need a_{ij} of the first commodity, a_{2j} of the second commodity and a_{ni} of the *nth* input. The model is a short term predictive model which estimates the impact of growth or dynamic change in a particular industry on the entire economy. It follows the process whereby if there is uniform or balanced growth pattern across industries, and then technological innovation is not infused and changes are not expected in each industry's input and output coefficients. On the other hand, if technological or structural changes occur in one or more industries, there would be changes in the entire economy which can necessarily be estimated using the input-output model. The changes predicted by the model are, however, purely speculative such that without resource availability, the changes are not guaranteed.

If, on assumption, there are *n* industries in the economy, the input-output table in the form of the matrix *A* = [a ij] would state the input coefficients. The table, essentially, shows the inter-industry flows where each column shows the necessary input(s) for producing one unit of the output of a certain industry. If, for whatever reason, any element in the matrix is zero, it shows that the input demand is zero. The input coefficients can be stated as

$$aij = \frac{Xij}{Xij} \quad i = 1, 2, \ldots, n \quad i = 1, 2, \ldots, n \tag{1}$$

where Xj is the total output of the *j*th industry and xij is the number of units of the *i*th good used by the *j*th industry.
An input-output table is of the form given in the following matrix as

A=

Output				
Input	I	II	. . .	N
I	a_{11}	a_{12}	. . .	a_{1n}
II	a_{21}	a_{22}	. ...	a_{2n}
.	.	.		.
.	.	.		.
.	.	.		.
N	a_{n1}	a_{n2}		a_{nn}

The above form of the input-output table considers only inter-industry flows and ignores final demand. The table would be an open one when a final demand for the product of each industry is included along the corresponding supply of primary inputs. Obviously, due to the supply of labour inputs, the sum of the elements in each column of the matrix *A* will be less than one because in the absence of primary input costs the sum of such element in any column will be exactly equal to one. Thus:

$$\sum_{j=1}^{n} a_{ij} < 1 \; j = 1,2, \ldots . n (2)$$

such that

$$1 - \sum_{j=1}^{n} a_{ij} \tag{3}$$

Equation (3) sates the value of primary input required to produce one unit of the *j*th good. Thus, for industry 1 to produce enough output to cater for the final demand plus the input demand of *n* industries, the following relations must hold as

$$x_1 = a_{11} x_1 + a_{12} x_2 + \ldots + a_{1n} x_n + ¿ D_1 \tag{4}$$

or

$$(1-a¿¿11)x_1-a_{12}x_2-\ldots-a_{1n}x_n=D_1¿ \quad (5)$$

where D_1 is the final demand for the output of industry 1.

The system of equations can be stated in the following matrix form

$$[1-A]x=D\begin{pmatrix} 1-a_{11} & a_{12}-a_{1n} \\ -a_{21} & 1-a_{22}-a_{2n} \\ -a_{n1}-a_{n2} & 1-a_{nn} \end{pmatrix}\begin{pmatrix} x_1 \\ x_2 \\ \cdot \\ \vdots \\ x_n \end{pmatrix}=\begin{pmatrix} D_1 \\ D_2 \\ \cdot \\ \vdots \\ D_n \end{pmatrix} \quad (6)$$

where the identity matrix *I* is of the form

$$I=\begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix} \quad (7)$$

¿*obtaining t*he value for *x* will take the form

$$x = [1 - \mathrm{A}]-1_D \quad (8)$$

thus, with the rule for matrix inversion, that is, [A] -1, it gives

$$A^{-1} = |\frac{1}{A}|\,\mathrm{A}* \quad (9)$$

If by assumption, table 1 below represents a closed economy inter-industry analysis of some sectors in a developing country, then the actual total output of each sector and the values of the flows of goods and services among different sectors can be obtained. In essence, appendix 1 shows the framework with which 468.4 units, 634.6 units and 721 units of total output of the agricultural sector, industrial sector and the services sector are derived, respectively. Thus, the difference in the total output between the tabulated values and the calculated values in appendix 1 gives the actual values of part of each sector's output that goes to the final demand (final consumption) sector in the economy.

Table 1

Sector	Agriculture	Industry	Services	Final Demand	Total Output
Agriculture	50	150	200	100	500
Industry	100	200	150	200	650
Services	200	100	300	150	750
Value Added	150	200	100	0	450
Total Input	500	650	750	450	2350

3.2 The Linear Programming (Optimizing) Model

The main task of development strategy is to ensure that resources will be forthcoming to meet the goals of a development programme, and that the resources are allocated efficiently subject to certain constraints. The linear programming model

can provide a simultaneous solution to the three basic purposes of development planning, which are the optimum allocation of resources, efficiency in the use of resources through the proper valuation of the resources, and the avoidance of social waste, and thirdly, the balance between different branches of the national economy. Linear programming can be considered as providing an operational method for dealing with economic relationships, which involve discontinuities. It is a specific approach within the general framework of economic theory (see Koutsoyiannis, 1989).

The optimizing model has proved useful in modeling diverse types of problems in planning, routing and design and can be applied to various fields of study. Basically, industries that use linear programming models include transportation, telecommunications, and manufacturing as it helps determine the techniques necessary to optimize output and cost at the plan formulation stage. Essentially, the basic assumptions upon which the model rests include proportionality, additively, divisibility and certainty.

Thus, if we assume that a country is putting up its national plan for economic development and that there are five sectors X1, X2, . . . , X5 with three main resources R1, R2, R3 in the economy. Let us assume further that the available quantities of the resources are R1 = 100 Units of Labour; R2 = 80 Units of Capital; and R3 = 150 Acres of Land; and that the unit contributions of the five sectors to the national output (Y) in the previous year are: $Y_1 = 4$, $Y_2 = 6$, $Y_3 = 3$, $Y_4 = 2$, and $Y_5 = 2$. If the known techniques of resources usage by each sector are as follows in table 2

Table 2

	X1	X2	X3	X 4	X5
R_1	$1_1 = 1$	$1_2 = 2$	$1_3 = 2$	$1_4 = 2$	$1_5 = 2$
R_2	$K_1 = 1$	$K_2 = 2$	$K_3 = 0$	$K_4 = 1$	$K_5 = 0$
R_3	$S_1 = 2$	$S_2 = 2$	$S_3 = 1$	$S_4 = 1$	$S_5 = 1$

then the problem can be formulated in the linear programming form as stated below in order to determine the national output and the contribution of each sector to the national output in current year so as to formulate national plan for the next fiscal year.

Maximise $Y = 4X_1 + 6X_2 + 3X_3 + 2X_4 + 2X_5$

Subject to

$$X_1 + 2X_2 + 2X_3 + 2X_4 + 2X_5 + S_1 = 100$$
$$X_1 + 2X_2 + 0X_3 + X_4 + 0X_5 + S_2 = 80$$
$$2X_1 + 2X_2 + X_3 + X_4 + X_5 + S_3 = 150$$
$$X_1 \geq 0,\ X_2 \geq 0,\ X_3 \geq 0,\ X_4 \geq 0,\ X_5 \geq 0$$

where the S_i represent slack variables on the assumption that each resource is underutilized by each sector. That is, the slack variable represents the difference between total quantity of available resource and the quantity of resource utilized by each sector. Thus, the inclusion of a slack variable in any of the constraint relationships automatically changes the inequality sign to equality. As such, given the iterations in appendix 2, the total optimum output in the economy is 330. By implication, only sectors X1, X2 and X3 are viable to be incorporated into the national development plan since these are the 3 sectors that contributed optimally to the national output

4. RESULT AND DISCUSSION

This study has analysed the efficacy of the linear programming (optimizing) model and the input-output model for economic planning in a developing economy. In the synopsis of the models, it is established that the input-output model would need massive amount of data on the economy's production interdependence especially where more than three industries are been considered simultaneously in the domestic scene or when the activity in the international arena is required. But then, this model can provide an accurate prediction of future production requirements if information on demand is made available given that the interdependence and interrelationships among industries are unraveled in the whole economy. It would also be effective for the analysis involving specialised industries where each industry produces a single product like the rubber plantation vis-à-vis tire manufacturing industry as available in Nigeria.

Also, it is inferred from the study that the linear-optimizing model is relevant when multi-sectoral or multi-regional analysis is involved in the economy. This model could be employed if efficient allocation of resources to sectors or regions is the main objective of the planning authorities in the economy. Prior to allocation, an analysis incorporating all sectors or regional usage of resources based on previous period allocation is carried out such that the contribution or sectoral or regional output to the central output is determined. As earlier explained, any sector or region that contributes to the central output would be incorporated in the national economic plan and resources also would be allocated based on the optimised usage

5. CONCLUTION AND RECOMMENDATION.

In conclusion, economic planning can be successful if appropriate economic models are used, if economic decisions are made by economists and not politicians or through effective consultation, if there is increased cooperation between various economic agents, if credibility is restored, commitment is improved (drawing from the Ottawa Commitment of 2002) and when decision lags are minimized. Evaluation and monitoring are components of a good planning model, which involves comparing the desired expectation with the actual. As a developing country, the non-availability of long-term data and the unreliability of the sources of the available ones, make the aggregative planning model unsuitable for Nigeria.

However, from the foregoing, the optimizing or linear programming model will be ideal and suitable for the country considering the unbalanced or heterogeneous growth pattern of development in the economy. Especially in the recent time when the Nigerian government proposes to incorporate each state's value of GDP in its national planning process, couple with the fact that the nation is structured and governed in a regional and sectorial or multi-sectorial type of political system, the optimizing model would be more relevant as a planning model. As such, it could be useful in the development planning process to project an increase in the availability and widen the distribution of basic life-sustaining goods such as food, shelter, health, and protection. Yet, this does not imply a total condemnation of the input-output model because where inter-industry analyses are required at the micro or plan formulation stage the Leontief model cannot be ruled out. From the study it is recommended that for economic planning to be achievable it should be:

i. Economic planning as understood by the majority of economists implies deliberate control and direction of the economy by a central authority for the purpose of achieving definite targets and objectives within a specified period of time.
ii. Planning authorities must have clear economic plan objectives with definite time frame of achieving it.
iii. For a major rational of economic planning to take place, the necessity of removing the nation's poverty should be of priority.
iv. That development models are relevant to providing a framework for the actual setting of targets in economic planning.
v. The economic plan should be grass root design and implemented across the administration's life.
vi. The financial plan of the government should reflect the broad plan of the administration.

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