

DEVELOPMENTAL PROGRAMMES AND POLICIES: A LOGIC

MODEL APPROACH

Obuks Augustine EJOHWOMU¹, Morakinyo Kehinde ONIFADE² and Akin Babatunde ADEOYE³

¹Department of Management Technology, Bells University of Technology, Ota, Nigeria, (+234) 0-81-6835-8832, Email: obuksejohwomu@yahoo.co.uk

²Department of Management Technology, Bells University of Technology, Ota, Nigeria, (+234) 0-80-6715-6313, Email: morakinyo.onifade@yahoo.com

³Department of Management Technology, Bells University of Technology, Ota, Nigeria, (+234) 0-81-8619-5528, Email: akin.adeoye@gmail.com

ABSTRACT

Drawing on a review of developmental policies and programmes since post-independence era, the programme logic model (PLM) is accepted as a framework for addressing the research aim, which is to develop a framework for the developmental future of Nigeria. A Logic Model based 6-way heuristic evaluation framework featuring: problems/issues, stakeholders' needs/assets, desired results, influential factors, strategies, and assumptions, were developed. This approach provided a schematic play-out of the feasibility of the evaluated programmes, and weights were assigned to the proposed strategies and their respective expected outcomes by target respondents and Bayes' theorem was applied to the respondents' scores. The findings showed that the strategies for a modest growth in the agricultural sector are provision of incentives for cash crops farming, institutionalising of agricultural practices and re-introduction of agricultural insurance scheme. The current contribution of the agricultural sector to the total GDP is approximately 23.86%. A modest and continuous increase can be expected if the proposed three strategies are implemented on a 3-4-3 basis. The strategies for a modest growth in the manufacturing sector are hastening the development of the infrastructure master plan and public private partnership with successful primary sector players. The current contribution of the manufacturing sector to the total GDP is approximately 4.1%. A modest and continuous increase can be expected if the proposed two strategies are implemented on a 4-6 basis. The strategies for a modest growth in the education sector are core implementation of science and technology based educational policies and innovation and management. The current contribution of the education sector to the total GDP is approximately 3.58%. The implication, therefore, is that there is urgent need to encourage 'productive' infrastructural development, which will jump start a knowledge based economy in the medium-term, and a serviced based economy in the long-term.

Keywords: Developmental programmes and policies, Logic model approach, Nigeria

1. INTRODUCTION

Nigeria is a country richly endowed with both diverse human and natural resources. The country had been viewed “internationally” as an underdeveloped nation with an unpredictable political system. The advent of the current democratic governance structure is expected to put Nigeria in the world knowledge economy index chart where Nigeria is currently not featured. More so, the quest for good leadership by the populace has been enhanced via the democratic process which started sixteen years ago. Succeeding administrations at the three tiers of government; Federal, State and Local, have been portraying their predecessors as regimes with gross policy mismatch. This conflict of interests has resulted in the abandonment of policies and programmes established over time. The resulting impact has been significant increase in cost of projects because they are either abandoned or negotiated at exorbitant contract sums (Mbamali and Okotie 2012).

Nation building is a task bestowed on every person of honour, whether in corridor-of-power or while practising his/her profession; and a nation is a dynamic “entity”. It either grows or decreases in standards. The perceived building blocks of our country are usually represented in sectors. These are mainly, *primary*, *secondary* and *tertiary* in nature, with regards to their impact on the stability of the country economically. Figure 1 is a schematic representation of Nigerian economic sectors.

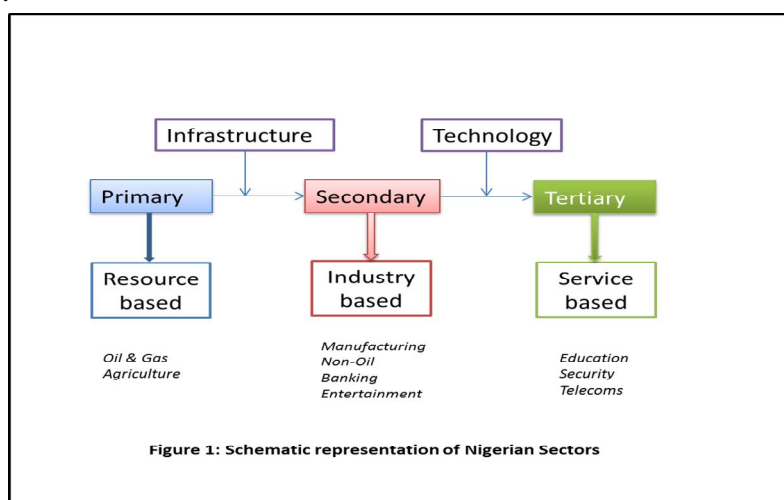


Figure 1: schematic representation of Nigerian economic sectors.

The primary sectors (resource-based) of any economy serve as its building block. The primary sectors of the Nigeria economy are basically Oil and Gas and Agriculture. The former, which provides about 30% of GDP and 95% of foreign exchange earnings, has been experiencing industrial booms while the latter has not benefitted resultantly (Iganiga and Unemhilin, 2001). Ideally, a boom in one primary sector should be divested and re-invested in the other. The secondary sector is industry-based and it comprises manufacturing, power generation, banking,

entertainment, and non-oil extractive industry. The tertiary sector is the service-based sector, which includes transportation, security, education, telecommunication, power distribution and construction. For transition to occur between the primary and secondary sectors, adequate productive infrastructures must be put in place. Similarly, adaptable technology is going to be very critical for transition from secondary to tertiary. The questions, therefore, are: What is the transitional status of the development of this phenomenon called Nigeria? What are the problems stifling a thriving Nigeria, and is it possible to develop sustainable strategies moving forward?

2. NIGERIA'S ECONOMIC DEVELOPMENTAL EFFORTS: SUCCESS AND FAILURE STORIES

The pre-independence era was characterised by agrarian activities, absence of industrial activities and production of primary raw materials for foreign industries and importation of manufactured goods. Post-independence era commenced with the First National Plan (1962-1968), having objectives ranging from discouraging importation of finished products to encouraging locally manufactured products through import substitution strategy. In spite of this, local industries are still heavily dependent on imported raw materials and capital goods.

In order to address the obvious foreign domination of the Nigerian industrial landscape, the Indigenization Policy was promulgated in Decrees in 1972 and 1977. However, the slump in oil price in the early 1980s resulted in doomsday for the high import dependent industries. Policies of import licensing, interest and exchange rates control resulted in acute shortages of industrial inputs with adverse consequences on industrial production and capacity utilisation. During this era, Structural Adjustment Programme (SAP) was adopted in 1986. These reform measures were to, amongst other things, reverse the downward trend in the economy, widen the Nation's industrial base, and enable trade liberalization in order to make the industrial sector competitive. Due to the absence of conducive business environment, the SAP policies had adverse effects on the industrial sector. The third era was the post SAP era. The cancerous impacts of the policy mismatch during SAP era were vividly evident during this period with attendant collapse of so many industries and resultant liquidation of financial institutions. Also, the Secondary sector of the Nation's building blocks was practically in a comatose state until the dawn of the new millennium (Mike, 2010). The newly ushered-in democratic system of governance was bedevilled with this sickening sector which led to the administration's quest for economic re-positioning of the country, through the adoption of policies such as Millennium Development Goal (MDGs), National Economic Empowerment and Development Strategy (NEEDS) amongst others.

Odularu (2008) in highlighting the performance of the oil sector in Nigeria noted that the downstream sector has been the problematic sector over the years. This sector was deregulated by the government in the year 2003. Although Odularu (2008)

argued that the manner of implementation of the deregulation was controversial, the action of government then reduced the perennial problem of fuel scarcity experienced in the country at that point in time. The long-time effect of the policy would have been experienced but the poor state of the refineries and pipeline networks were inhibiting factors to this. The dominance of primary production activities in the Nigerian economy compared with secondary production activities has classified the nation as a resource based economy; and the unequal contributions of the two components of this primary sector to the earnings of the nation has positioned her as a mono-component economy, which is very susceptible to external shocks.

The National Bureau of Statistics (NBS) posited that the structure of agricultural production in Nigeria shows a dominance of crops production which, as at 2009, accounted for 89.1 per cent of the total agricultural output, while livestock, forestry and fishing sub-sectors that hold tremendous potential for growth and development of the economy being a principal source of inputs for industrial production, contributed just 19.9 per cent. This can be attributed to the fact that fishing and livestock production have high level of investment risk while forestry production's payback period is more than five years. The First National Plan that was developed between 1962 and 1968 emphasised the introduction of more modern agricultural methods through farm settlements and supply of improved farm implements. After the civil war, in 1972, some specialised development, such as, National Accelerated Food Production (NAFP) and farm settlement schemes were initiated. Notably, agricultural development interventions namely Operation Feed the Nation (OFN) and River Basin and Rural Development Authorities, Green Revolution Programme were launched in 1976, and 1980 respectively. The World Bank-funded Agricultural Development Projects (ADB), which was running concurrently, was an experimental integrated approach to agricultural development in Nigeria. The shortfall of these interventions was that they sought to improve food crop production only at the expense of cash crop production.

More recently, The Agricultural Transformation Agenda (ATA) was introduced and is aimed at making agriculture work for Nigerians especially farmers (Obiora, 2014). Obiora carried out a study in South-eastern Nigeria and revealed that the on-going Agricultural Transformation Agenda in Nigeria would not be able to transform the agricultural sector from being just a resource-based sector to a service-based sector due to weak capacities of the technology transfer sub-systems' stakeholders with regards to the level of staff trainings, human resource and workforce capabilities. Typical examples of the secondary sector (Industry-based) are the Manufacturing and the Banking sector. Presently, the manufacturing sector of Nigeria includes cement, oil refining and other manufacturing activities. This sector is x-rayed through three eras, namely Pre-independence, Post-independence and Post-Structural Adjustment Programme (Mike, 2010). Similarly, Indigenization Policy (Decrees) of 1972 and 1977, as amended were promulgated to address the obvious foreign domination of

the Nigeria industry landscape.

2.1 Comparing the contributions of the various sectors of the Nigerian Economy

Figure 2 is a trend analysis of the various sectors of the Nigerian economy. The smoothening of the plots comes from the use of interval data sets. Interval scales are numeric scales in which we know both the order and exact differences between the values (Vallenman and Wilkinson 1993).

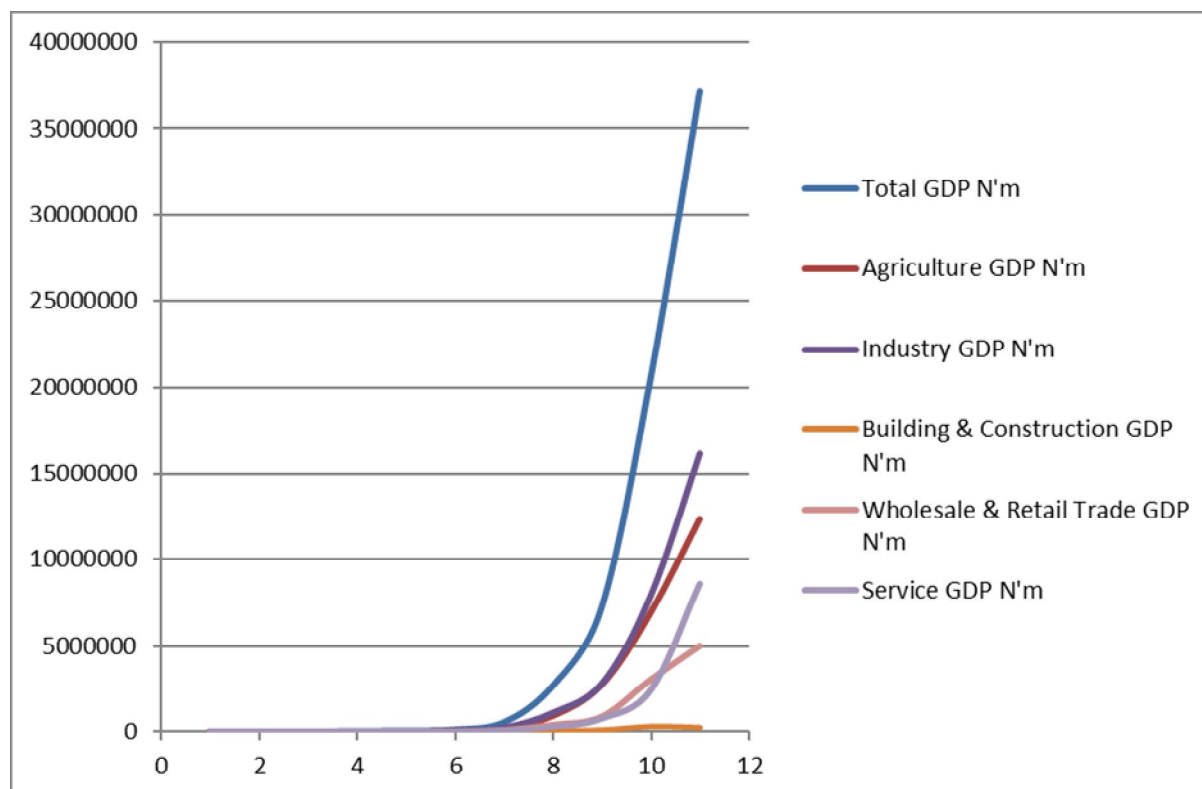


Figure 2: 1960 - 2012 internal time series data of Sectional GDP

Source: Central Bank of Nigeria

Between 2005 and 2009, the agricultural and industrial sectors made modest contributions to the total GDP. A close look at the graph will reveal that the Agricultural sector and the Industrial sector are relatively doing well in terms of their contributions to the GDP. One may be quick to conclude then that the various policies of governments aimed at developing a diversified economy and, hence, a thriving nation, are proving to be effective. While these conclusions may not be far from the truth, it should however be noted that, had these policies and programs been effectively and efficiently implemented, the contributions of these sectors to the GDP would have been far more pronounced than is the case presently. The contributions of the service-based sectors to the GDP is also improving, albeit slowly, for the same reasons.

Interestingly, there is a very poor showing from the building and construction sectors (industry-based sector). This poor contribution to the GDP may not be unconnected to the poor state of infrastructure in Nigeria. This realization shows how important it is to develop ‘productive’ infrastructures in Nigeria in a bid to developing a thriving nation. Where productive infrastructure is one, which besides aligning with the Infrastructure Master Plan, draws on divestment of revenue from the resource base but embedded on logic model approach. Additionally, the technology agents of transition between primary and secondary sectors (see Figure 1) requires holistic redress, else, the gap between agricultural and industry sectors will remain disadvantageously apart. The wholesale and retail trade based sectors are hinged on importation. This unit of the industry sector is likely to stay redundant except the agents of transition are awakened.

2.2 Theoretical Brief on Logic Model (LM)

Sample studies of how the Logic Model can help in formulating, implementing and evaluating government programs and policies effectively were carried out. The LM is a framework and a way of thinking that helps in simulating planning and monitoring program evaluations (Cooksy *et al*, 2001; Dwyer and Makin, 1996; Julian *et al*, 1995). A LM links outcomes (both short-term and long-term) with program activities/processes and the theoretical assumptions/principles of the program. The LM is defined as a picture of how an organization does its work – the theory and assumptions underlying the program. The purpose of the logic model is to provide stakeholders with a road map describing the sequence of related events connecting the need for the planned program with the program’s desired results. Mapping a proposed program helps in the visualization and understanding of how human and financial investments can contribute to achieving intended program goals and how it can lead to program improvements through strategic monitoring and evaluation.

The logic model approach helps in creating common understanding of and focus on program goals and methodology, relating activities to intended outcomes and, since effective evaluation and program success rely on the fundamentals of clear stakeholders’ understanding and expectations about how and why a program will solve a particular problem, generate new possibilities, and optimize the use of valuable assets, the LM is an ideal evaluation framework. The basic logic model is as depicted in Figure 3.

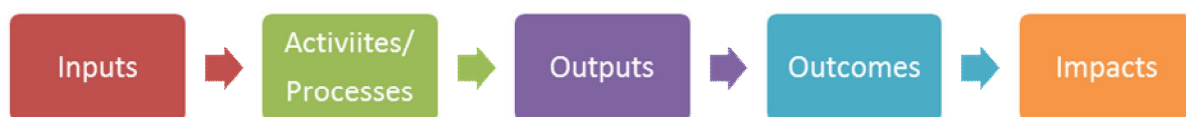


Figure 3: A Basic Logic Model

The human capital, organisational and community resources invested on a program in order to carry on with the processes served as input. The actions carried on the inputs are the program activities. These include the processes, tools, events, technology, and actions that are fundamental to the implementation of the program. The direct results of the processes or activities related to a program stakeholder’s behaviour, knowledge, skills, status and level of functioning, as a consequence of the program outputs are the outcomes. The fundamental change either intended or unintended happenings in the systems, organisations, communities or nations as a result of the program make up the impact.

3. RESEARCH METHODOLOGY

Drawing on the accepted theoretical framework (Logic Model), an action research approach was used in addressing the identified research gap – policy mismatch that is devoid of a whole systems framework – and questions posed in Section 1. Action research supports gathering, analysis and interpretation of information (Berg *et al* 2004). A one day colloquium was organised to discuss the research aim and questions. A total of 99 participants from different sectors were in attendance. Feedback from the discussion informed the honing of the design of the instrument of survey, which was later administered to participants by hand. A total of 35 questionnaires were returned out of the 99 representing a 35 per cent response rate. Additionally, the inputs to various programmes and their associated activities were x-rayed and the stipulated outputs and expected impacts on the sector were quantified. A 6-way heuristic evaluation was carried out based on problem/issue, stakeholders’ need/assets, desired results, influential factors, strategies and assumptions. This evaluation provided a schematic play-out of the feasibility of the evaluated programme. The pay-offs for the logic model were obtained based on the Bayes’ theorem. The Bayes’ probability is determined using formulae shown in equation (1) developed by Levine (2008)..

$$p(E_i | S_j) = \frac{p(E_i)p(S_j)}{p(E_1)p(S_j) + p(E_2)p(S_j) + \dots + p(E_n)p(S_j)} \tag{1}$$

Where,

P(E_i) is the probability of Expected results proposed based on the Logic Model framework

P(S_j) is the probability of proposed strategies based on Logic Model framework

E_i is the specific Expectation based on the Logic Model framework

S_j is the specific Strategy based on the Logic Model framework

$$p(E_i | S_j)$$

is the conditional probability that Expectation (E_i) occurs given that the strategy (S_j) has occurred. This shows the possibility of the outlined expectations (desired results) resulting from the implementation of the proposed strategies based on the Logic Model framework developed. The prior, $p(S_j)$, and posterior, $p(E_i)$ probabilities were based on the weights assigned by the respondents which comprised of professionals in various sectors of the Nation's economy as well as seasoned academics.

The strategies of the model developed for short, medium and long terms were weighed based on their contributions towards the resolution of the perceived problems/issues by experts. This weighting was collated and formed the probability of occurrence for such strategies. The present contribution and envisaged modest growth of the sector under reference accounts for the opportunity loss that may occur when the strategies proposed were not deployed.

4. FINDINGS AND DISCUSSION

4.1 Primary Sector: Analysis of the Agricultural Transformation Agenda (ATA)

In deriving Table 1, sustainable strategy for bridging the gap in the agricultural sector (a primary sector of the economy), the *PLM* was used to analyze the current Agricultural Transformation Agenda of government. This is done by defining the inputs, processes, outputs, outcomes and expected impacts parameters for the agricultural sector in Nigeria under the ATA.

Table 1: Analysis of the Agricultural Transformation Agenda Using the Logic Model

Programmes	Inputs	Activities/Process	Outputs	Outcomes	Impacts
1. Nigeria Incentive-Based Risk-Sharing System for Agricultural Lending (NISRAL)	Time CBN: Agricultural financing value chain Manpower	De-risk lending to the agricultural sector	Improved agricultural lending and development	Increase production and processing of large quantity of agricultural produce	Developed agricultural industrialization process Improved economic earnings across the agricultural

	Farmland				value chain
2. Marketing Corporations	Time Manpower Government supports	Government established commodity marketing corporations around every agricultural commodity. Government set up/run enabled/support institutions to empower farmers and the value chain actors to generate value	Developed private-sector driven-marketing organizations Farmers and value chain actors become empowered	Strengthened markets for agricultural commodities Coordinated production and export of target commodities Secured investments for research and development, infrastructure developments and processing Stimulated development of tailored financial services to grow the agricultural sectors	Growth in the agricultural sector
3. Growth Enhancement Support (GES)	Time Financial investments Manpower Farmland Stakeholders meetings	Provision of series of incentives to critical actors in the fertilizer value chain Provision of GES 20 million farmers with S in four years Provision of direct support to farmers to procure agricultural inputs at affordable prices, at the right time and place	Encouraged critical actors in the fertilizer value chain to work together for improved productivity	Increased use of fertilizers by farmers from 13Kg/ha to 50Kg/ha	Improved productivity, household food security and income of the farmers

		Government roles changed from direct procurement and distribution of fertilizer to a facilitator of procurement, regulator of fertilizer quality and catalyst of active private sector participation in the fertilizer value chain			
4. Staple Crop Processing Zones	<p>Time</p> <p>Government commitments, incentives</p> <p>State government's support (Land capital)</p>	<p>Government put in place tax holidays on import of agricultural processing equipment</p> <p>Government put in place tax holidays for food processors that locate in these zones</p> <p>Government provide supportive infrastructure, especially investment in roads, logistics, storage facilities and power</p> <p>Construction, development and operation of agro-processing clusters located in areas of high-food production across the country.</p> <p>Establishment of Agro-Industrial towns</p>	<p>Reduced cost of doing business for agro-processors to ensure their competitiveness,</p>	<p>Private agribusinesses set up processing plants in zones of high food production., to process commodities into food products</p> <p>Farmers are linked in clusters to food manufacturing plants</p>	<p>Ready markets are created for Nigerian farmers, thereby reducing post-harvest losses.</p> <p>Imports substitution and value addition to local agriculture produce to serve the vast and growing local market</p> <p>Industrialization of the Nigeria economy</p> <p>Job and wealth creation</p> <p>Reversal of rural-urban migration</p>

The short-term model (see Figure 4) is a derivative of Table 1. Here, the primary problem or issue is the need to bridge Nigeria's resource base gaps - between Oil and Gas and Agriculture – with particular emphasis on enhancing the primary sector's contribution to total GDP. The adopted framework allows the model to assume that

agricultural policies are adequate and productive over a 5 year period then the strategies listed in Figure 4 will lead to a modest increase in total GDP. This is however subject to the influential factors identified and resultant stakeholder needs. The importance of the sign posted farmland ownership structure and diversification of Nigeria’s current resource base cannot be over emphasized. The success of some of today’s leading economies is dependent on the theory of property rights land use model (Coase 1960). The results of operationalising the short-term model showed that the funding ratio for the prescribed strategies is 3:4:3.

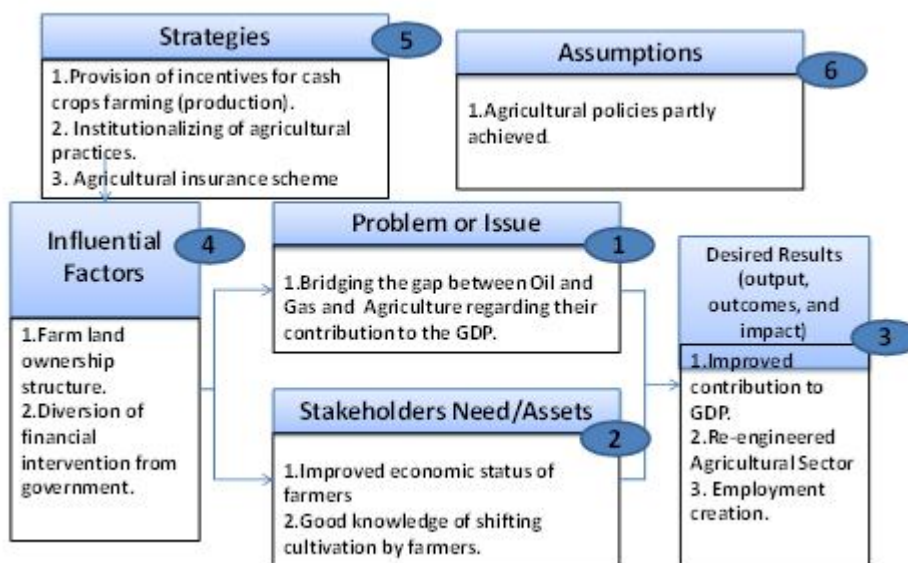


Figure 4: Short-term Developmental Model

The developed strategies for a modest growth in the agricultural sector are *provision of incentives for cash crops farming* (S_{A1}), *institutionalizing of agricultural practices* (S_{A2}) and *re-introduction of agricultural insurance schemes* (S_{A3}). The current contribution of agriculture to the total GDP is approximately 37.02%. A modest and steady increase can be experienced if the proposed three strategies (S_{A1} , 2 and 3) are implemented on a 3:4:3 funding rational basis. The derived ratio was as a result of weights allocated to each strategy by some experts consulted during the pilot survey carried out.

5.1 Secondary Sector: Analysis of the Nigeria Industrial Revolution Plan (NIRP)

The Nigeria Industrial Revolution Plan (NIRP) is designed as a 5 year plan to accelerate the build-up of industrial capacity within Nigeria. The plan aims to increase manufacturing’s contribution to GDP from 4 per cent to 6 per cent by the end of 2015, and finally above 10 per cent by 2017. This plan has been analyzed by defining the inputs, processes, outputs, outcomes and expected impacts parameters for the NIRP as shown in Table 2.

Table 2: Analysis of the Nigeria Industrial Revolution Plan (NIRP) Using the Logic Model

Programmes	Inputs	Activities/Process	Outputs	Outcomes	Impacts
1. Agribusiness and Agro Allied	Agricultural transformation Agenda (ATA) Adequate Infrastructure Manpower	Mid-stream and downstream processing and market activities Integrate ATA into NIRP Manpower development	Increased agro-output to feed industry and the NIRP	An end-to- end integrated agro value chain is built Boosted local production to meet local Demand	Maximize the benefits from Nigeria's agricultural resources Reduction in Nigeria's reliance on Imports of processed food products.
2. Solid minerals and Metals	Raw material reserves Adequate Infrastructure Manpower	NIRP will create a strong industry that can tap into the mining sector (with initial focusing on the iron ore value-chain) NIRP will create an enabling environment targeting large scale investors Manpower development	Acompetitive advantage around high value high-volume products further down the value-chain (e.g. Automotive) is created.	Institutionalization of large scale production standard in Nigeria	Enhanced industrial output
3. Oil and Gas related Industry	Hydrocarbon reserves Adequate Infrastructure	Use cheap and abundant gas to revitalize industries. Manpower development	Encourage high value-adding downstream investments	Competitive oil and gas-driven industries	Institutional industrial strengths within the country built
4. Construction, Light Manufacturing, and Services	Time Manpower	Manpower development	Nigeria's infrastructural needs met	Nigeria's business need for infrastructures and housing met	An industrialized economy

The medium-term model (see Figure 5) is a derivative of Table 2. Here, the

problem or issue is the need to create an enabling environment for industrialization. The adopted framework allows the model to assume that there is consistency in policy during the short-term phase. The two strategies listed in Figure 5 (to hasten the development of the infrastructure master plan and PPP with successful primary sector players) will lead to a modest increase in the contribution of the secondary sector to the total GDP if the strategies suggested for their growth are implemented on 4:6 funding rational bases. This is however subject to the influential factors identified and resultant stakeholder needs.

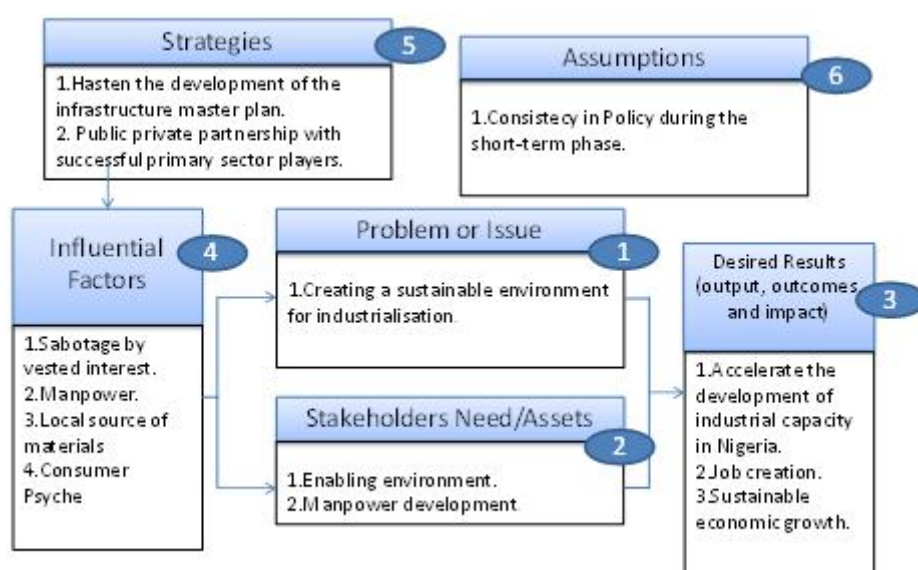


Figure 5: Medium-term developmental model focusing on Manufacturing

5.2 Tertiary Sector: Analysis of the Nigeria Education Sector using the Logic Model

As a sample study in deriving the sustainable strategies for developing the tertiary (service-based sector shown Figure 6) of the Nigerian economy, the Logic Model framework was applied to the Nigeria 9-3-4 system of Education. This is done by defining the inputs, processes, outputs, outcomes and expected impacts parameters for the education sector as shown in Table 3

Table 3: Analysis of the Nigeria 9-3-4 System of Education

Programmes	Inputs	Activities/Process	Outputs	Outcomes	Impacts
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<p>1. Universal Basic Education (UBE)</p>	<p>Free and compulsory education Government funds Adult and non-formal educational programmes at primary and junior secondary school levels for both adults and out-of school youths</p>	<p>Mobilize the nation's creative energies to ensure that education for all becomes the responsibilities of all Provision of free and universal basic education for every Nigerian child of school-going age. Improve the relevance, quality and efficiency and ensure the acquisition of appropriate levels of literacy, numeracy, manipulative, communicative and life skills, as well as the ethical, moral and civic values needed for laying a solid foundation for lifelong learning. All parents will ensure that their children or wards attend and complete their primary education and junior secondary school.</p>	<p>Children have a continuous, uninterrupted stretch of education for 9 years from primary school to the 3rd year of the junior secondary school Adults who have been out of school before acquire the basic skills needed for lifelong.</p>	<p>Equal education opportunities for all Drastic reduction in the incidence of drop out from the formal school system A solid foundation for lifelong learning</p>	<p>Eradicate illiteracy Everyone is prepared for the acquisition of any knowledge</p>
<p>2. Senior Secondary Education</p>	<p>Senior secondary school curriculum Admissions</p>	<p>Government regulations Offering diversified curriculum to cater for differences in talents, opportunities, and future roles</p>	<p>Trained manpower in applied Science, Technology, art and Commerce Provision technical knowledge and vocational skills for students</p>	<p>Broadened knowledge and skills of students beyond the basic level Development and promotion of Nigerian languages, arts and culture Inspired students with a desire for self-improvement and achievement</p>	<p>Developed generation of people who can think for themselves, respect the views and feelings of others, respect the dignity of labour, appreciate national values, and live as good citizens.</p>

				of excellence	Fostered national unity
3. Tertiary Education	Subsidy on tertiary education by the FG Admission of students Curriculum	Provision of affordable tertiary education to individuals Training of individuals in different disciplines Development of proper value orientation	Acquisition of both physical and intellectual skills Acquisition of specialized skills	Individuals developed intellectual capacities to understand and appreciate their environment Development of professionals	Objective, productive, self-fulfilling and self-reliant individuals. Useful members of the society developed Sustainable society.

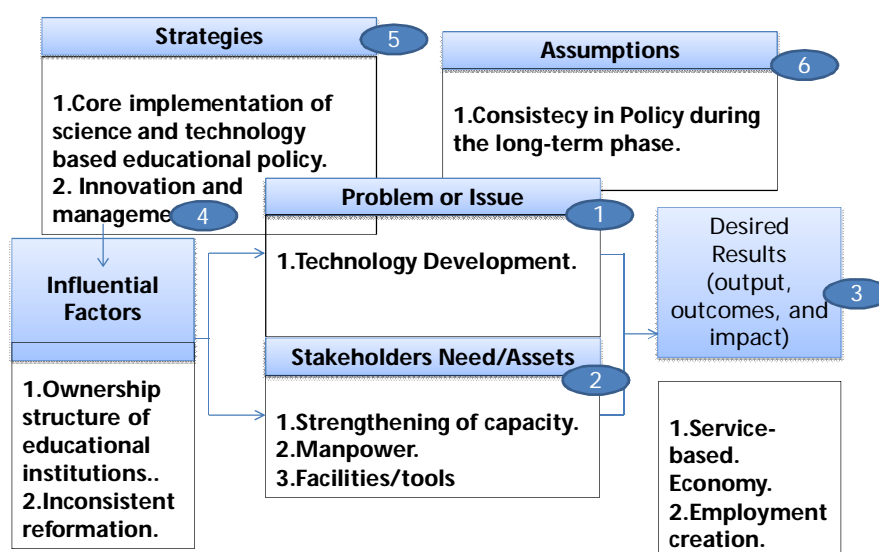


Figure 6: Model development for Long-Term Strategy (Education)

The manufacturing arm of the industry sector as well as the educational arm of the service sector can experience a modest and continuous increase in their contributions to the total GDP if the two strategies (core implementation of science and technology based educational policy and innovation management) suggested for their growth are implemented on 4:6 funding rational basis.

The Bayes’ rule was applied to the weights, obtained from the survey, associated with strategies and their respective expected outcomes of the short term, medium and

long term developmental plans. The prior probabilities that the strategies are deployed were related to the posterior probabilities of the expected outcome. The degrees of belief (doB) and the long run frequencies for various developmental plans' strategies and expected outcomes are shown in Table 4.

Table 4: Bayes' Long Run Frequency for Short Term Plan

Expected Outcomes' doB	E ₁ (0.3)	E ₂ (0.3)	E ₃ (0.4)
Strategies' doB			
S ₁ (0.3)	0.3	0.3	0.4
S ₂ (0.4)	0.3	0.3	0.4
S ₃ (0.3)	0.3	0.3	0.4

The strategies for a modest growth in the agricultural sector are *provision of incentives for cash crops farming, institutionalising of agricultural practices and re-introduction of agricultural insurance scheme*. The current contribution of the agricultural sector to the total GDP is approximately 23.86%. A modest and continuous increase can be expected if the proposed three strategies are implemented on a 3-4-3 basis.

Table 5: Bayes' Long Run Frequency for Medium Term Plan

Expected Outcomes' doB	E ₁ (0.5)	E ₂ (0.3)	E ₃ (0.2)
Strategies' doB			
S ₁ (0.4)	0.5	0.3	0.2
S ₂ (0.6)	0.5	0.3	0.2

The strategies for a modest growth in the manufacturing sector are *hastening the development of the infrastructure master plan and public private partnership with successful primary sector players*. The current contribution of the manufacturing sector to the total GDP is approximately 4.1%. A modest and continuous increase can be expected if the proposed two strategies are implemented on a 4-6 basis.

Table 6: Bayes' Long Run Frequency for Long Term Plan

Expected Outcomes' doB	E ₁ (0.5)	E ₂ (0.5)
Strategies' doB		

S ₁ (0.4)	0.5	0.5
S ₂ (0.6)	0.5	0.5

The strategies for a modest growth in the education sector are core implementation of science and technology based educational policies and innovation and management. The current contribution of the education sector to the total GDP is approximately 3.58%. A modest and continuous increase can be expected if the proposed two strategies are implemented on a 4-6 basis.

5. CONCLUSION AND RECOMMENDATION

The research was able to model the Nigeria economy and segmented it into three sectors with plans that could lead to developments in these sectors. The envisaged developmental plans were in short, medium and long terms and the implementations of their proposed recommended strategies were indicated. The findings from this research can help the government to contextualize Nigerian economic development as a project that can be actualized if the necessary metrics are provided as recommended.

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