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DEVELOPING A SUSTAINABLE AGRICULTURAL, INDUSTRIAL, INFRASTRUCTURAL THRIVING NIGERIA: A LOGIC MODEL APPROACH FOR DEVELOPMENT

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ABSTRACT: Nigeria is currently the largest economy in Africa with a per capita GDP that ranks 121st in the world. The impact of this sudden change on the different sectors of the Nigerian economy needs to be well understood for the benefit of sectorial sustainability. Drawing on a review of developmental policies and programmes since post-independence era, the programme logic model is accepted as a framework for addressing the research aim, which is to develop a framework for the developmental future of Nigeria. A 6-way heuristic evaluation is carried out based on problems/issues, stakeholders' needs/assets, desired results, influential factors, strategies, and assumptions. This approach provides a schematic play-out of the feasibility of the evaluated programmes. Analysis shows that, while there has been policy mismatch and poor implementation of programmes by governments, the various proposed programmes were well intended towards developing a thriving Nigeria. The suggested short-term strategy is to incentivise cash crops farming. In the medium-term, the strategy should be aimed at hastening the implementation of the infrastructure master plan and public-private partnerships with successful short-term stakeholders. For the long-term, the prescribed strategies for achieving the technology development are core implementation of science and technology policies and adequate innovation and management of technologies. 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: Logic Model Approach, Short, Medium, Long Term Economy, Infrastructural, Developmental, Programmes, Policies

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 were 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 into abandonment of policies and programmes established over time. And the resulting impact has been significant increase in cost of projects because they are either abandoned or negotiated at exorbitant contract sums [6].

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Nation building is a task bestowed on every person of honour, whether in the corridor-ofpower or while practising his/her profession; as 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.



The *primarys*ectors (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 has been experiencing industrial booms while the latter has not benefitted significantly [8]. 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 phenomenon called Nigeria? What are the problems stifling a thriving Nigeria? And is it possible to develop sustainable strategies moving forward?

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. The 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

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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 into a 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 industry 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 [10]. 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.

[13] 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 [13] 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 [11] 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 considered long - more than five years. The First National Plan that was developed between 1962 and 1968 emphasised the introduction of more modern agricultural methods of production; 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

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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. A study carried out in Southeastern Nigeria 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 [12].

Typical examples of the secondary sector (Industry-based) are the Manufacturing and the Banking sector. Presently, the manufacturing company in Nigeria comprises of cement, oil refining and other manufacturing activities. This sector can be x-rayed through three eras namely: Pre-independence, Post-independence and Post-Structural Adjustment Programme [10]. Similarly, the Indigenization Policy (Decrees) of 1972 and 1977 as amended, were promulgated to address the obvious foreign domination of the Nigeria industry landscape.

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 [15].



Figure 2: A fifty-two year (1960 - 2012) internal time series data of Sectional GDP Source: Central Bank of Nigeria

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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, 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 and put to work.

Theoretical Framework

Frameworks are fundamental to solving complex problems or phenomenon [7]. Guided by the logic model approach, the *Programme Logic Model (PLM)* is accepted as a framework for answering the research questions posed in Section 1. In particular, the PLM is a holistic framework for planning, monitoring and evaluating programmes and policies [4, 5]. The PLM provides the researcher with a road map that describes the sequence of related events connecting the need for the planned policy with the policy's desired results. Mapping a proposed policy helps in the visualization and understanding of how human and financial investments can contribute to achieving intended goals and how it can lead to policy improvements through strategic monitoring and evaluation. The visual representation of the process in a logic model is flexible. It points out areas of strength and/or weakness, and allows the investigator to run through many possible scenarios to find the best fit for the model. 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 [9]. The basic logic model is as depicted in Figure 3 below.

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 [4, 5, 9]. 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

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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.

Indeed project monitoring and evaluation within a social context has been defined as the continuous assessment both of the functioning of the project activities in the context of design expectations as an internal project activity and an integral part of the day-to-day management; while evaluation and/ or measuring is the periodic assessment of the relevance, performance, efficiency and impact of the project in the context of its stated objectives. The process usually involves comparisons requiring information from outside the project – in time, area or population. Distinctively, people centered projects are more difficult to manage, monitor, evaluate and/ or measure because of the less tangible goals and the less precisely specified means of attaining these goals [2]. Without doubt, project – agricultural - monitoring, evaluation and/ or measuring performance is the responsibility of all those who have a stake in the polity [14].

In this regard, 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. Therefore, 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 which serve 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 happening in the systems, organisations, communities or nations as a result of the program make up the impact.

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RESEARCH STRATEGY - 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 [1]. 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 administered using purposive sampling technique. A total of 35 questionnaires were returned representing a 70 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.

DISCUSSIONS

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.

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

Table 1: Anal	vsis of the A	Agricultural	Transformation	Agenda	Using the]	Logic Model
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					

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2. Marketing	Time	Government	Developed	Strengthened	Growth in the
Corporations		established	private-sector	markets for	agricultural
_	Manpower	commodity	driven-	agricultural	sector
		marketing	marketing	commodifies	
	Government	corporations	organizations	Coordinated	
	supports	around every		production and	
		agricultural	Farmers and	export of	
		commodity.	value chain	target	
		a i i	actors	commodities	
		Government set	become	C	
		up/run	empowered	Secured	
		institutions to		for research	
		ampower farmers		and	
		and the value chain		development,	
		actors to generate		infrastructure	
		value		developments	
				and processing	
				Stimulated	
				development	
				of tailored	
				financial	
				grow the	
				agricultural	
				sectors	
3. Growth	Time	Provision of series of	Encouraged	Increased use	Improved
Enhancement		incentives to critical	critical actors	of fertilizers	productivity,
Support (GES)	Financial	fertilizer value chain	in the	by farmers	household food
	investments		velue choin	170III 13Kg/ba to	income of the
	Mannower	Provision of GES 20	to work	50Kg/ha to	farmers
	Manpower	million farmers with	together for	Jong/na	Tarmers
	Farmland	S in four years	improved		
		Provision of direct	productivity		
	Stakeholders	support to farmers to			
	meetings	procure agricultural			
		inputs at affordable			
		prices, at the right			
		time and place			
		Government roles			
		changed from direct			
		procurement and			
		fertilizer to a			
		facilitator of			
		procurement,			
		regulator of fertilizer			
		quality and catalyst			
		of active private			
		in the fertilizer value			
		chain			

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	nt put in	Time	Reduced cost	Private	Ready markets
4. Staple Crop Processing Zones	nt put in colidays on d d nt put in colidays e e nt put in colidays cocessors in these nt provide ure, t in roads, torage nd power on, ent and of agro- g clusters areas of production country.	Time Government commitments, incentives State government's support (Land capital)	Reduced cost of doing business for agro- processors to ensure their competitiven ess,	Private agribusinesse s set up processing plants in zones of high food production., to process commodities into food products Farmers are linked in clusters to food manufacturin g plants	Ready markets are created for Nigerian farmers, thereby reducing post- harvest losses. Imports substitution and value addition to local agriculture produce to serve the vast and growing local market Industrialization of the Nigeria economy Job and wealth creation Reversal of rural-urban migration
	country. nent of strial				migration
	nent of strial				

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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 in 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 the 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 [3]. The results of operationalising the short-term model showed that the funding ratio for the prescribed strategies is 3:4:3. Where the ratio is determined using decision analysis formulae shown in equation (1).

$$EOL(j) = \sum_{i=0}^{N} LijPi$$

Equation 1.

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

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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.

Model Development for Short-Term: Agriculture



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.

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 percent to 6 percent by the end of 2015, and finally above10 percent 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.

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Pr	ogrammes	Inputs	Activities/Process	Outputs	Outcomes	Impacts
1.	Agribusiness	Agricultural	Mid-stream and	Increased	An end-to- end	Maximize
	and Agro	transformation	downstream	agro-output	integrated agro	the benefits
	Allied	Agenda	processing and	to feed	value chain is	from
		(ATA)	market activities	industry and	built	Nigeria's
				the NIRP		agricultural
		Adequate	Integrate ATA into		Boosted local	resources
		Infrastructure	NIRP		production to meet	
					local	Reduction in
		Manpower	Manpower		Demand	Nigeria's
			development			reliance on
						Imports of
						processed
						food
						products.
2.	Solid minerals	Raw material	NIRP will create a	Acompetitive	Institutionalization	Enhanced
	and Metals	reserves	strong industry	advantage	of large scale	industrial
			that can tap into	around high	production	output
		Adequate	the mining sector	value high-	standard in	
		Infrastructure	(with initial	volume	Nigeria	
			focusing on	products		
		Manpower	the iron ore value-	further down		
			chain)	the value-		
				chain (e.g.		
			NIRP will create	Automotive)		
			an enabling	is created.		
			environment			
			targeting large			
			scale investors			
			Monnowon			
			development			
3	Oil and Cas	Hydrocarbon	Use chean and	Encourage	Competitive oil	Institutional
з.	oli allu Gas	reserves	abundant gas to	high value-	and gas_driven	industrial
	I claicu Industry	10301 003	revitalize	adding	industries	strengths
	muustiy	Adequate	industries	downstream	mustrics	within
		Infrastructure	maastries.	investments		the country
		minastructure	Mannower	mvestments		built
			development			ount
		Time	Mannower	Nigeria's	Nigeria's husiness	An
4	Construction		development	infrastructural	need for	industrialized
r.	Light	Mannower	actorphicht	needs met	infrastructures and	economy
	Manufacturing	manpower		needs met	housing met	conomy
	and Services					

Table 2: Analysi	s of the Nigeria	Industrial Rev	volution Plan	(NIRP) U	sing the Logic
Model					

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.

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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 the resultant stakeholder needs.

Model Development for Medium-Term: Manufacturing



Figure 5: Medium-term developmental model

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 (servicebased sector) 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

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Programmes	Inputs	Activities/Process	Outputs	Outcomes	Impacts
1 Universal Resid	Free and	Mobilize the nation's	Children have a	Equal	Eradicato
I. Universal Dasic		creative energies to		education	illitaroov
(URF)	education	ensure that education	uninterrunted	opportunition	millineracy
(UDE)	education	for all becomes the	atrotab of	for all	Everyona
	Covernment	responsibilities of all	advantion for 0	101 all	Liver yolle
	funda		voora from	Drestia	is prepared
	Tullus	Provision of free and	primary school	raduction in the	
	A dult and	universal basic	to the 3rd year	incidence of	of any
	non formal	education for every	of the junior	drop out from	brany knowledge
	aducational	Nigerian child of	of the julio	the formal	Kilowieuge
	programmes	school-going age.	school	school system	
	at primary	Improve the relevance.	school	school system	
	at primary	quality and efficiency	A dulte who	A solid	
	secondary	and ensure the	have been out	foundation for	
	school levels	acquisition of	of school	lifelong	
	for both	appropriate levels of	before acquire	learning	
	adults and	literacy, numeracy,	the basic skills	learning	
	out-of school	manipulative,	needed for		
	vouths	life skills as well as	lifelong		
	youths	the ethical moral and	merong.		
		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			
2 Senior		secondary school.	Trained	Broadened	Developed
2. Secondary	Senior	Government	mannower in	knowledge and	generation
Education	secondary	regulations	applied	skills of students	of people
Education	school	regulations	Science	beyond the basic	who can
	curriculum	Offering diversified	Technology art	level	think for
	curriculum	curriculum to cater	and Commerce		themselves,
	Admissions	for differences in		Development	respect the
		talents,	Provision	Nigerian	feelings of
		opportunities, and	technical	languages, arts	others.
		future roles	knowledge and	and	respect the
			vocational	culture	dignity of
			skills for		labour,
			students	Inspiredstudents	appreciate
				with a desire for	national
				and achievement	live as good
				of excellence	citizens
					Fostered
					national

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

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Model Development for Long-Term: Education



Figure 6: Model development for Long-Term Strategy

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.

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CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The correlation between Nigeria's status as the largest economy in Africa and her developmental strides in not clear; this research effort is therefore aimed at developing a sustainable framework for the developmental future of a thriving Nigeria. Drawing on a review of developments in major sectors - an analysis of success and failure stories - the logic model is accepted as a framework for bridging identified research gap that is stifling a thriving Nigeria as one of policy mismatch devoid of a sustainable framework like the Program Logic Model - PLM. The transitional status is that Nigeria is a country that is dependent on a stunted resource-based economic growth. Indeed, Nigeria's economic problem is not the absence of good intentions by her leaders in policy/program making and formulations; rather it is the absence of sustainable model(s) or strategies for formulating and implementing programs and policies. It is viewed that with the appropriate strategy for policy formulations and implementations, and with her vast human and capital resources, Nigeria's economy will thrive significantly. However, there is need to retrospectively validate the assumptions used when operationalizing the prescribed short, medium and long term models.

Recommendations

In view of the aforementioned, the following recommendations were made:

- The Logic Model (PLM) should be adopted in the development, management, monitoring and evaluation of all government programs. It is further suggested that government practitioners should be trained on how to use the Logic Model in implementing their programs;
- An integrated national master plan that will integrate all the sectors of the economy should be developed using the Whole System Thinking approach;
- For the short term, incentives should be provided for cash crops farming; agricultural practices should be institutionalized and agric-insurance scheme should be fully re-invented;
- For the medium term, actions on infrastructure master plan development should be expedited; successful players in the primary sector should partner with government in the provision of infrastructure;
- For the long term, core implementation of science and technology based educational policy; introduction of innovative and management techniques to the educational sector should be of topmost priority.

References

- [1] B. L. Berg, L. Howard, L. Howard, *Qualitative Research Methods for the Social Sciences*. Vol. 5. Boston, MA: Pearson. 2004.
- [10] J. A. Mike, Banking Sector Reforms and Manufacturing Sector: The Manufacturers Association of Nigeria Perspective. *Economic and Financial Review*. Vol.46, No.4. Pp57-65. 2010.
- [11] National Bureau of Statistics, National Manpower Stock and Employment Generation Survey, 2010.

Published by European Centre for Research Training and Development UK (www.eajournals.org)

- [12] C. J. Obiora, Agricultural Transformation Agenda in Nigeria: How prepared is the Technology Transfer-Sub System? *Journal of Biology, Agriculture and Healthcare*, Vol.4, No.2. pp. 82-85. 2014.
- [13] G. O. Odularu, Crude Oil and the Nigerian Economic Performance. Oil and Gas Business, <u>http://www.ogbusiru/eng/</u>. 2008.
- [14] B. E. Sambo, Agricultural Project Monitoring and Management for Service Delivery and Sustainable Development in a Democratizing Africa: An Introspective Analysis of Nigeria. *International Journal of Social Science and Sustainable Development*, Vol.2, No. 1, pp149-155. 2012.
- [15] P. F. Vallenman, L. Wilkinson, Nominal, Ordinal, Interval, and Ratio Typologies are misleading. *American Statistician*, No.1. pp71. 1993
- [2] D. N. Castly, K. Kumar, Project Monitoring and Evaluation in Agriculture. Published by the International Bank for Reconstruction and Development/ THE WORLD BANK, U.S.A. pp1-78. 1987.
- [3] R. H. Coase, The Problem of Social Cost. Journal of Law and Economics. 3:1. 1960.
- [4] L. J. Cooksy, P. Gill, P.A. Kelly, "The programme logic model as an integrative framework for a multimethod evaluation." *Evaluation and programme planning* 24.2: pp119-128. 2001.
- [5] J. J. Dwyer, S. Makin, "Using A Programme Logic Model that Focuses on Performance Measurement to Develop a Programme." *Canadian journal of public health= Revue canadienne de sante publique* 88.6: pp421-425. 1996.
- [6] A. H. Ekpo, O. J. Umoh, An Overview of the Nigerian Economic Growth and Development, 2012.
- [7] O. A. Ejohwomu, *Modelling the supply and demand for construction and building services skills in the Black Country*. Diss. University of Wolverhampton. 2007.
- [8] B. O. Iganiga, D. O. Unemhilim, The Impact of Federal Government Agricultural Expenditure on Agricultural Output in Nigeria. 2011.
- [9] D. A. Julian, A. David, A. Jones, D. Deyo, "Open systems evaluation and the logic model: Programme planning and evaluation tools." *Evaluation and Programme Planning*, 18.4: pp333-341. 1995.