
NIGERIA VISION 2020 ECONOMIC TRANSFORMATION PLAN: ADDRESSING NIGERIAN DEVELOPMENT AND THE STRUCTURE OF THE ECONOMY THROUGH EDUCATION

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Abstract

The paper discussed the status of the economy of Nigeria currently. It made some comparisons between Nigeria and South Africa, which revealed that Nigeria's GDP is higher than that of South Africa but the GDP per capita and the purchasing power parity is higher for South Africa. The aim, objectives and pillars of Vision 2020 and the possibility of achievement were explored. The educational requirements of the vision were highlighted in terms of the returns to investment in education and the convergence of theory and practice in the Nigerian educational system. The term development was examined and was construed to encompass three variables: human development, transformation and economic growth. The paper claimed that the structure of the Nigerian economy is ant-shaped and the increase in wealth has not significantly impacted the human development and transformation. It was concluded that although Nigeria is well on her way to achieving vision 2020, there has to be some measures taken in the educational sector to align it to the demands of development beyond vision 2020.

Contrary to popular opinion in Nigeria and contrary to the assumption of the uninformed, Nigeria's economy has greatly improved over the last few years. Currently, Nigeria is rated as one of the 39th strongest economies in the world with regards to GDP. According to the Goldman Sachs study, Nigeria will be the 13th largest economy by the year 2050. In 2003, Goldman Sachs identified the BRIC (Brazil, Russia, India and China) as the most rapidly growing economies in the world. Despite the depression of 2001-2002, these economies have continued to grow and by 2011 (See Table 1) (PricewaterhouseCoopers (PWC) LLP, 2013) they were rated among the 10 largest economies in the world. In 2005, Goldman Sachs identified the next eleven countries (N11), including Nigeria, that will experience the same trend as the BRIC. Nigeria's economy has since improved. The GDP moved from a GDP of less than \$100 billion in 2000 to \$451 billion in 2012 and \$522 billion in 2013.

Nigeria has grown to become the largest economy in the West African sub-region and is gradually overtaking South Africa in the continent. A comparison of Nigeria and South Africa (Table 2) on GDP indicators reveals Nigeria to be doing better

than South Africa on almost all the indicators. There has been a structural change and with the re-basing of the economy in 2010 and the recognition of sectors such as communication and entertainment, the contribution of the different sectors to GDP has now changed. The following are acknowledged: decline of the contribution of agriculture from over 30% to about 20%; growth of the services sector from 25% to about 50%; increase of the contribution of the manufacturing sector from 2% to about 7%.

Table 1 GDP of 20 Largest Economies for 2011 (Actual) and 2030 & 2050 (Projected)

PPP Rank	2011		2030		2050	
	Country	GDP at PPP (2011 US\$bn)	Country	Projected GDP at PPP (2011 US\$bn)	Country	Projected GDP at PPP (2011 US\$bn)
1	US	15,094	China	30,634	China	53,856
2	China	11,347	US	23,376	US	37,998
3	India	4,531	India	13,716	India	34,704
4	Japan	4,381	Japan	5,842	Brazil	8,825
5	Germany	3,221	Russia	5,308	Japan	8,065
6	Russia	3,031	Brazil	4,685	Russia	8,013
7	Brazil	2,305	Germany	4,118	Mexico	7,409
8	France	2,303	Mexico	3,662	Indonesia	6,346
9	UK	2,287	UK	3,499	Germany	5,822
10	Italy	1,979	France	3,427	France	5,714
11	Mexico	1,761	Indonesia	2,912	UK	5,598
12	Spain	1,512	Turkey	2,760	Turkey	5,032
13	South Korea	1,504	Italy	2,629	Nigeria	3,964
14	Canada	1,398	South Korea	2,454	Italy	3,867
15	Turkey	1,243	Spain	2,327	Spain	3,612
16	Indonesia	1,131	Canada	2,148	Canada	3,549
17	Australia	893	Saudi Arabia	1,582	South Korea	3,545
18	Poland	813	Australia	1,535	Saudi Arabia	3,090
19	Argentina	720	Poland	1,415	Vietnam	2,715
20	Saudi Arabia	686	Argentina	1,407	Argentina	2,620

Source: PwC (2013) World Bank estimates for 2011, PwC estimates for 2030 and 2050

The contribution from mining and construction has been halved (Silva, 2014). Table 2 reveals that Nigeria has overtaken South Africa in GDP and in gross fixed capital formation. The GDP growth rate is also higher than that of South Africa. These are indications that Nigeria is becoming a bigger market than South Africa.

Table 2 Nigeria/South Africa GDP Indicators for 2012 and 2013

	2012 (US\$bn)		2013 (US\$bn)	
	Nigeria	S. Africa	Nigeria	S. Africa
<u>GDP</u>	459.62	382.34	521,803	350.63
<u>GDP Growth Rate</u>	4.18	0.50	8.67	1.40
<u>GDP Annual Growth Rate</u>	6.54	1.30	5.4	1.9
<u>GDP Constant Prices</u>	16084622.31	2993536.00	17479127.58	3004322.00
<u>GDP per capita</u>	1052.18	5885.22	1097.97	5916.46
<u>Gross Fixed Capital Formation</u>	2535525.94	616037.00	2590816.13	619196.00
<u>GDP per capita PPP</u>	5439.62	12041.63	5676.35	12105.55

Reasons for the growth of the Nigerian economy have been adduced to the following:

1. The high rate of population growth. This has given rise to a great number of consumers as well as disposable income (Euromonitor International, 2008).
2. The structural change in the pattern of production as well as emergence of new products and services as has been witnessed in the communication and entertainment sectors in Nigeria.
3. There are also noticeable changes in the pattern of consumption and in technological innovations in Nigeria e.g. the purchase of cars and the growth in the fast food industry, etc.

This growth in GDP does not indicate the citizens have better quality of life. In fact, the GDP per capita and the purchasing power parity suggest that the citizens of South Africa have better quality of life, since these are higher. This has implications for development and education.

This trend and the forecast by Goldman Sachs in 2005 that Nigeria will be in the N11 led to the government of President Shehu Yaradua coming up with the Vision 2020. Nigeria, therefore, requires a GDP yearly growth rate of about 10% to move the latest GDP figure of \$521,803 billion to \$900 billion by the year 2020, which is the target of Vision 2020.

Vision 2020 Economic Transformation Plan

Nigeria is increasingly assuming an important position as one of the leading markets of the world. Consequent on this, the Federal Government adopted a more holistic and inclusive strategy to transform the Nigerian State (National Planning Commission, 2009). In the recent past, Nigeria had attempted to drive the attainment of her national aspirations through the adoption of several reform and long term strategic plans. These include : the Poverty Strategy Reduction Papers, National Economic Empowerment and Development Strategy (NEEDS I & II), Nigeria's Strategy for

Attaining the Millenium Development Goals and the Seven Point Agenda. Vision 2020 brings together the principles of the NEEDS programme and the Seven Point Agenda in a single long term strategic plan.

The Vision statement is that Nigeria will have a large, strong diversified, sustainable and competitive economy that effectively harnesses the talents and energies of its people and responsibly exploits its natural endowments to guarantee a high standard of living and quality of life to its citizens. In concrete terms, the vision is to place Nigeria in the league of the top 20 economies of the world with a GDP of \$900 billion and a per capita of \$4000 by the year 2020. This is translated into two major objectives:

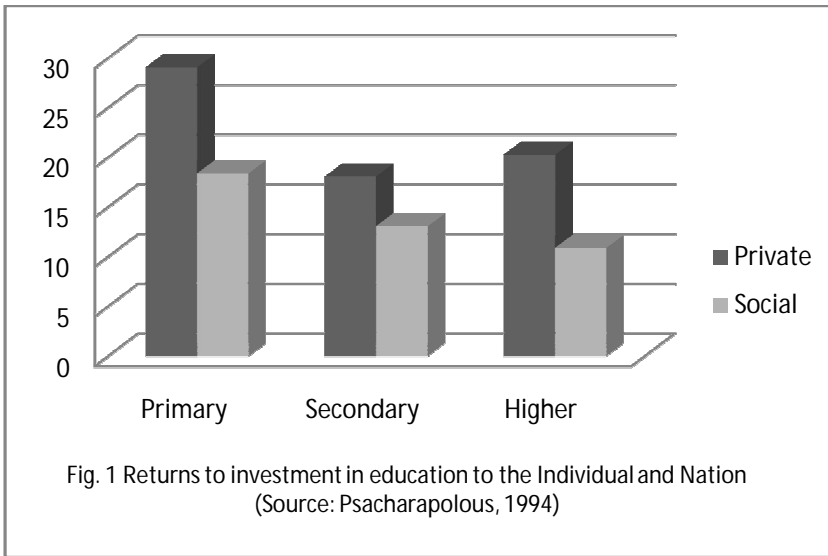
1. Optimise her human and natural resource potential to achieve rapid and sustained economic growth; and
2. Translate economic growth into equitable social development that guarantees a dignified and meaningful existence for all her citizens.

To achieve this, strong structures and mechanisms were put in place to drive the vision. These rested on three pillars: guaranteeing the productivity and wellbeing of the people; optimizing the key sources of economic growth and fostering sustainable social and economic development. For the purposes of this discourse, we will only consider Pillar I in details.

Pillar I: Guaranteeing the Productivity and Well-being of the People

Nigeria Vision 20: 2020 states that “people are the most essential assets of any nation” (p. 10). It is hoped that the strategies adopted can transform the 140 million people in Nigeria into catalysts for growth and national renewal. Vision 2020, therefore, seeks among other things to “reform the educational system in conjunction with states and local governments to enforce completion of the mandatory nine-year Universal Basic Education programme, while building new capacity in technical and vocational education” (p. 12). The document therefore realizes the importance of education in the process of economic growth. We will consider education in this respect from the following angles:

Return to investment in Education: There is an established pattern in the relationship between investment in education and economic growth and returns (Mbajiorgu, 2012, 2014). Whereas Stevens and Weale (2004) demonstrated the gains to the individual, an average of 7%, Psacharapoulos and Patrinos (2002) compared the gain to the individual with the gain to the nation (Fig. 1)



It is obvious from Fig. 1 that the gains to the individual is higher than the gains to the nation but there certainly is a gain to investment in education. In addition to this fact, the data also suggests that the highest gain comes from investment in the lower education levels. This gain seem to decrease as the level of education increases.

Psacharapolous and Patrinos (2002) documented the result of the work of Wheeler (1980) on the effect of literacy on a nation’s economic growth. It was found that education has an independent effect on economic growth. The evidence was gotten from pooling data sets from 88 countries and working with variables rather than level of education. Simultaneous equation techniques were applied to the data and it was found that an increase of the literacy rate from by 10 per cent causes an increase in real GDP by 8 to 16 percent. This increase is huge and cannot be ignored by any nation that puts premium on development. The importance education has on development was, therefore, captured by the Vision 2020 document and emphasis, discussed above was placed on the Federal Government and all other levels of government reforming education in order to enforce the completion of the nine-year mandatory basic education by the children.

Technical/Vocational Education (TVE) and Development: realizing the role of TVE on development, the Vision 2020 document states that the Nigerian government will build new capacities in TVE. UNESCO (2005) also identified practical training as one of its four priority areas of action for the Decade of Education for Sustainable Development and therefore, stated as one of its two objectives “to reorient education and learning so that everyone has the opportunity to acquire the knowledge, skills, values and attitudes that empower them to contribute to sustainable development” (p. 14). Again, UNESCO (2015) captures the goal and mission of TVE in Nigeria as a tool

for combating poverty and unemployment and a priority that will contribute to the socio-economic development of the nation. Therefore, UNESCO-UNEVOC (2006, p. 24) argues that the role of education is “to create independent problem solvers [with] sufficient depth of understanding; whereas the role of training has been to teach people to follow prescribed procedures and to perform in a standardized manner. In the changing world of work it appears that these two, formerly distinct, perspectives are converging.”

Interaction of General/Science Knowledge, Technical Skill and Engineering Theory: This section is culled from Mbajiorgu (2003). For development to take place, there has to be a threshold of technology know-how possessed by the human capital. This includes knowledge, skills and general know-how applied to hardware in order to produce goods and services. Technology know-how comprises four things: scientific knowledge, problematic data, technical skill and engineering theory. Technology know-how does not deal with the abstract. This is because technology takes place in context. Specific questions and gaps are identified to which engineering theory is applied. This takes into consideration time, cost and personnel. The abstract science knowledge is, therefore, restructured by engineering theory to solve particular problems. Engineering theory constructs intellectual systems that explain the workings of particular kinds of machines, equipment, etc.

For this to take place effectively, technical skill has to be acquired. This is another form of know-how. Technical skill is best developed through experience. This engenders a certain level of intimacy with tools and a level of pragmatic judgment. Theoretical knowledge only serves as foundational while practical experience combines theory and practice to yield expertise. Expertise is thus a combination of three things: theoretical knowledge, intimacy with tools and pragmatic judgment.

For technology know-how to be complete, ‘black boxes’ have to be opened. These are workings of specific artifacts. Although this may be patented, simple appliances come with manuals for use and general knowledge will aid this. Opening of ‘black boxes’ yields problematic data. This can arise from the trial period of new and emerging technology, or everyday use of prevalent technology. This is necessary for incremental technical change.

The challenge for Nigeria is to develop her human capital in line with the educational requirements of development as discussed above. Imagine an auto repair shop floor in Nigeria with an apprentice who has three years of experience and a fresh graduate of engineering. The apprentice who is now intimate with tools and can diagnose problems through pragmatic judgment, will understand and handle more auto problems than the graduate. This suggests that expertise which is the result of a combination of theoretical knowledge, intimacy with tools and pragmatic judgment

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must be acquired for technology to continue to develop. How then can we cause a convergence of theory and practice in the Nigerian educational system? What importance should be given to higher level education (engineering and other management level education), intermediate education (technical training) and general education as is obtained at the basic education level? These questions can be answered from three perspectives: (1) economic returns to the different levels and forms of education, (2) effect of the different forms of education in the development process and (3) status of education in Nigeria, presently.

The rate of return to general and vocational education has been a matter for argument among scholars. Whereas Malamud and Pop-Eleches (2006), Psacharapoulos (1994) Psacharapoulos and Patrinos (2002), argue that rate of return to general education is higher than rate of return to TVE, others (for example Tansel, 1996) argue that the rate of return to vocational education is higher than the rate for general education.

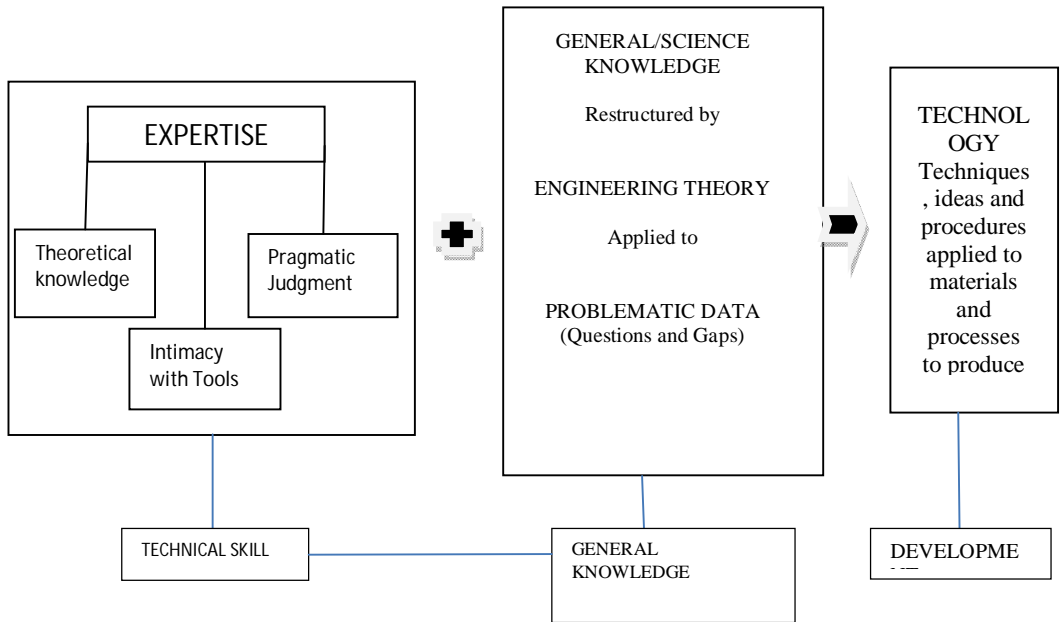


Fig. 2 Interaction of general knowledge, technical skill and development

The East Asian miracle was accounted for by the investment of the government in human capital through policies that focused spending in education on the lower grades. Firstly, they provided universal primary education and then followed it by expanding the secondary education (World Bank, 2002). According to this document (p.15),

Limited public funding of postsecondary education focused on technical skills, and some HPAs imported educational services on a large scale, particularly in vocationally and technologically sophisticated disciplines. The result of these policies has been a broad, technically inclined human capital base well-suited to rapid economic growth.

This approach creates increase in labour force skills as well as increase equity among the populace.

What is the status of the Nigerian educational system with respect to basic education and vocational training? According to the Human Development Index (HDI) Nigeria ranks 108 out of the 120 countries with available data as at 2010. Nigeria's scores on the four HDI indices are as follows: Standard EDI value 0.723, Primary Adjusted Net Enrolment 0.576, Adult Literacy Rate 0.613, Gender Specific Index 0.830 and Survival Rate to grade 5 0.863. Nigeria scored below 0.90 on all four components and 0.723 overall. This is an indication that Nigeria has not met the goal of EFA as at the time of the assessment, which is 2010 (Mbajjorgu, 2013). A few other indices will suffice.

- Nigeria has the largest out-of-school children in the world, 7million on the whole constituting 10% of the global estimate.
- There is gender disparity in favour of males in the enrolment of school age children
- The overall or national literacy rate is estimated at 56.9%, with huge differences among the states
- Only 500,000 of the 40 million adult illiterates are enrolled in adult learning classes.

There is a dearth of data on technical and vocational education

What is National Development?

The word development suggests a progression from one level or form to a better or more advanced form (Lawal and Oluwatoyin, 2011). Three major schools of thought address this concept (Alam, 2008,). These include the economic school of thought, with emphasis on the rate of increase in Gross Domestic Product (GDP); the sociologist school of thought that emphasize modernization and the transformation of a nation. This school of thought argues that the most critical variable in the process of development is the modernization of the nation. Finally, we have the school that considers human needs as critical. This school, therefore, makes problematic issues of equity, access to good health care, education and security.

Notions of development will, thus, encompass two major variables: economic growth and human development. These will determine the quality of life, which to my thinking is the real national development. Take for instance, two nations may be similar

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in terms of (GNP) and GDP whereas their population differ markedly in the quality of life. This is why the United Nations have devised means of determining development using a number of proxies. These include life expectancy, adult literacy, access to all three levels of education, as well as people's average income. This is expressed as the Human Development Index (HDI). This is very important because increase in the wealth of a nation may not automatically translate to better quality of life in every nation. Indeed Beg (2015, p. 8) argues that

It is true that economic growth, by increasing a nation's total wealth, also enhances its potential for reducing poverty and solving other social problems. But history offers a number of examples where economic growth was not followed by similar progress in human development. Instead growth was achieved at the cost of greater inequality, higher unemployment, weakened democracy, loss of cultural identity, or overconsumption of natural resources needed by future generations.

A third factor is indicated in development and that is transformation. Transformation indicates the structure of the economy, that is, the contribution of the different sectors of the economy such as agriculture, manufacturing, entertainment, communications etc. to GDP, as well as the level of urbanization and modernization of the society.

National development can therefore, be conceived to have three components, economic growth, human development and transformation. Economic growth can be measured by GDP indicators such as GDP growth rate, GDP per capita, GDP purchasing power parity (PPP), GDP constant prices and GDP fixed capital formation. These interact in an unending cycle, mutually impacting each other.

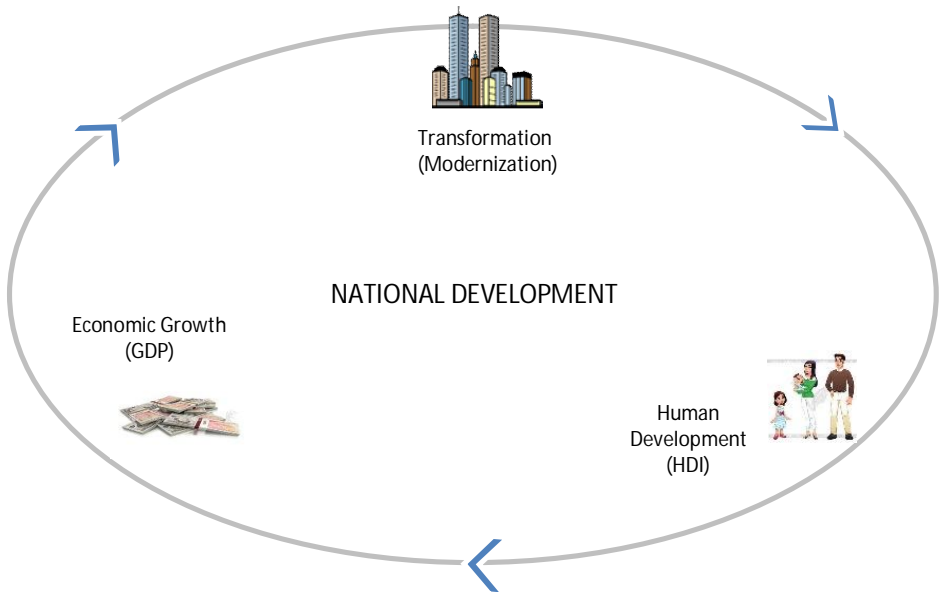


Fig. 3 National development as a function of three interacting factors

Theories of National Development

There are five theories recognized amongst many on national development. These include (1) the linear-stages of-growth model, (2) theories and patterns of structural change, (3) the international-dependence revolution, (4) the neoclassical, free-market counterrevolution and (5) the eclectic theory that attempts to bring all the other theories together.

The linear-stages theory of development sees development in terms of rapid, aggregate economic growth. Nations are to go through a series of stages each leading to the other in the pathway to development. The necessary conditions were savings, investment and foreign aids, although these have been considered not sufficient presently. The best example is Rostow's theory of economic development.

Theories of patterns of structural growth are best explained by a transformation from a subsistence agriculture to a modern, urbanized manufacturing and service economy. Policies are to enforce government intervention and facilitate industrialization. Economic growth is achieved through minimizing reliance on export of primary products and pursuing inward-oriented development by shielding the domestic economy from that of the developed economies. Proponents argue that developing countries develop through action by the government, industrialization

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enhanced and dependency on trade with the industrialized countries reduced while trade among themselves increased (Wikipedia, 2015).

The international-dependence revolution views underdevelopment as a function of international and domestic power relationships, institutional and structural economic rigidities. Advocates argue that the origins of persistent global poverty cannot be understood without reference to the entire international economic system. The term dependency comes from the exploitation of third world countries for their raw materials and labour. This impoverished them and made them depend on the West. Others point out that in fact it is the other way around: that the West has been dependent on the underdeveloped world in order to be able to grow and prosper.

The neoclassical, free-market counterrevolution propounds the opposite of the international-dependence revolution theory. Underdevelopment according to this theory is the result of excessive involvement of government in the economy of the nation. It emphasizes the role of free market, liberalization open economies and privatization of public enterprises. The eclectic school of thought combines all the tenets of the four theories in its argument about development.

How has Nigeria Fared?

A look at the structure of the Nigerian economy presently (Table 3) reveals that the primary sector of the economy, which comprises agriculture, mining and quarrying contributed an average of about 33% to GDP in 2013 and 2014. This indicates the Nigerian economy is still heavily dependent on the primary activity sector. This is followed by the tertiary sector and then secondary. The contribution from services increased drastically with the re-basing using 2010 as the year. The major change came from communications and the entertainment industry which

Table 3 Gross Domestic Product Contributions at Current Basic Prices

Activity Sector	3013	2014
Agriculture	23.33	22.9
Mining & Quarrying	11.38	10.59
Manufacturing	9.22	9.95
Electricity, Gas, Steam, & Air Conditioning	0.52	0.45
Water Supply, Sewerage, Waste Management	0.11	0.12
Construction	3.59	3.82
Trade	16.62	16.57
Accommodation & Food Services	0.86	0.95
Transportation & Storage	1.16	1.15
Information and Communication	10.82	10.81
Arts, Entertainment & Recreation	0.18	0.19
Finance & Insurance	2.90	2.96
Real Estate	7.76	7.68
Professional, Scientific & Technical Services	3.58	3.56
Administrative & Support Services	0.02	0.02
Public Administration	2.89	2.79
Education	2.02	2.07
Human Health & Social Services	0.68	0.70
Other Services	2.45	2.72

Source: Federal Republic of Nigeria 2015)

were not fully represented in earlier analyses. As we noted earlier, the growth in the Nigerian economy are the result of the high rate of growth of the population among other things rather than occasioned by real structural change. What is the implication of this?

Looking at the GDP (Table 2) indicators, one may begin to appreciate the implication of the above. The comparison between Nigeria and South Africa shows that whereas Nigeria has a higher GDP and GDP growth rate, the GDP per capita and the purchasing power parities are lower than that of South Africa. This may be an indication that the growth in the economy is not real but spurious. The HDI is not significantly impacted by this growth and the rate of modernization is low. Whereas Vision 2020 may be realized to a great extent, actual national development may be lopsided. Given these implications what should be the role of education?

Accumulation of human capital has been identified by different development theories as important if development is to be achieved. Data also reveals that investment in basic education yields a higher economic return and that as the years of schooling increases, the rate of return decreases. Mbajiorgu (2012) argues that quality rather than access and equity is the key to the return in education. It has also been unequivocally

demonstrated that investing in technical education gives added advantage to a nation for industrialization to take place (World Bank, 2002). In the face of the foregoing, what should education in Nigeria do, given the data presented earlier?

1. The Nigerian government should make concerted efforts to enforce the basic education demand on all citizens. This will ensure a reduction in the number of out of school children and adult illiterates.
2. Investment in lower grades should be pursued, especially, to make the provisions of high quality. More facilities and better job conditions for teachers should be vigorously pursued. The teacher holds the key to the quality of education offered. In Nigeria, teachers at the primary school level are poorly remunerated. This must change for education to impact development.
3. Technical and vocational education should be enhanced by (i) increasing the provision, (ii) training teachers in technical education, (iii) through appropriate agencies create awareness of the importance of technical education, (iv) making technical provisions really practical and (v) create better image in the labour market for technical education graduates. Studies done by Mbajiorgu (2003) reveals that in Nigeria, technical education does not give added advantage to its recipients over those that received regular education both in recruitment and at the production shop floor.
4. The industry should dictate what new skills should be introduced in schools and what fields should be emphasized. The mis-match between training and industrial needs should be rectified. In other words, there should be a better link between industry, society and schools, especially, in the development and revision of curricula. Presently, there is a lot of activity in the communication and entertainment industry, curricular should be developed and existing ones revised in film production, electrical, electronics engineering, etc. The difference between computer engineering and computer science for instance, should be made clear. Laboratories, should be provided and be well equipped.
5. There should be evaluation of the provisions, impact and problems of present technical education provisions with a view to produce reliable data. This will enhance right judgments about the achievements and prospects for achieving industrialization through education.

Conclusions

Nigeria is well on her way to achieving Vision 2020. However, analysis in this paper reveals that achievement of Vision 2020 does not translate to development. Development is much more than increasing the wealth of the nation. This should go beyond increase in GDP and all its indicators to increasing the HDI and enhancing modernization. We can agree that these are far from being achieved. There are huge disparities between the rich and the poor and the purchasing power parity is low compared to nations that have lower GDP. To rectify this, the government needs to use education as an instrument to drive development. Government expenditure in education

must increase in a way that shows the government is interested and realize the role of education in human capital development.

Again, proper alignment of skill provision to market forces through enabling policies and investment in education will address some of the shortcomings of the development trend noticed presently. As Mbajiorgu (2014) puts it, investment and policy options must include the development of a skilled workforce through science and technology education. On this rests continued incremental product and process innovations. These will strengthen the secondary sector of the economy, which seem to be the weakest at this point.

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