

ACHIEVING THE 7- POINT DEVELOPMENT AGENDA IN NIGERIA THROUGH THE TERTIARY EDUCATION

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Abstract

Nigeria like other developing nations has spent so much in education with a view to raising the needed manpower resources for faster national development. Different development visions have been pursued by different succeeding regimes in the country, the latest being the 7 - Point Agenda (SPA). This paper examines the 7 - Point Agenda for national development viz-a-viz the tertiary education sub-sector. The objective is to see how prepared is tertiary education in realizing the seven point development vision. The Ordinary Least Square (OLS) technique was applied to data set from Nigeria. The findings show a strong relationship between tertiary education and national development. The student – teacher and student per school ratios are two high, indicating that the tertiary education (TE) in Nigeria is growing very fast. It also shows a quality deficit in the products produced from them. Nigeria has great potentials for education attainment and national development but for wrong education policy focus and mismanagement of the meagre resources allocated to tertiary education. There is no clear role for tertiary education in national development. A refined and proper focus on tertiary education for national development needs to be redefined. The study recommends a definite role for TE in national development; proper funding of TE, and growth in TE institutions should match students' population growth.

Review of Related Literature

Development, in whatever context, should aim at addressing the key development issues of growth, unemployment, inequality and poverty; rural development, population and infertility, among others. Education is a universal instrument of development in any society. Both quantitative and qualitative education is required if a nation will develop. It is a vehicle with which to attain full social and economic potentials by both individuals and the states. Whereas, capital and materials, even natural resources are important, it is human resources of a nation that finally influenced the character and pace of economic and social development of such a society. A country which is dreaming of developing and making progress in this modern time must develop the skills and knowledge of her people. Such skills are to be used properly in the national economy. The other levels of education; primary and secondary are vital foundation of formal education needed for national development. The principal instrument of national development, particularly developing human skills and knowledge is tertiary education.

The SPA is a picture of the enormous development challenges that confront Nigeria as a nation. As a development pursuit, the agenda seeks to address the teething bottlenecks of our national development in critical sectors and sections of the Nigerian economy. The objective of this paper is to project the tertiary education as a principal mechanism for achieving the SPA, and to the relationship between tertiary and national development. However, one may ask, how prepared is the tertiary education sub-sector to play this onerous task in our national development aspiration?

Development, national development, is not just an economic concept but encompasses more than material and financial aspects of lives of people. It is a multi-dimensional process which must involve the re-organization and re-orientation of the entire economic and social systems (Todaro, 1980). Apart from enhancement in incomes and output, national development must include drastic changes in institutional, social, political, administrative structures, radical changes in attitude, our beliefs and principles. It must involve increasing economic growth, reduction of inequality and continuous reduction of chronic or absolute poverty. The basic core values of development includes but not limited to sustenance of life through consistent provision of basic necessities of food, housing,

health care and protection: provision of identity to the citizenry; liberty from oppression, from ignorance, alienation created by adverse material conditions and from being swallowed up by others. Education becomes a handy means in realizing these core values of development.

Development suggests a change of an irreversible nature. The characteristics of such development are determined by that which is being developed. This therefore involves moving through the process from an existing to an end stage. In the context of African countries, the critical thing is the production of an enlightened or educated community. Such development should seek to address the challenges of poverty, conflict, diseases, especially HIV/AIDS, unemployment at national, community, family and individual levels (Kurasha, 2003).

Since 1999, when a civilian government came to power in Nigeria, Nigeria has been focusing on growing the economy and improving the lives of the people through a home grown economic reform programmes and policies. The NEEDS was the initial reform package which touched on almost every facets of the economic and political life of Nigeria. The major goals of NEEDS were wealth creation, employment generation, poverty reduction and value orientation. The programme was hinged on three key macro-economic pillars of empowering people, promoting private enterprise and changing the way government do business. While the first pillar has health, education, environment, rural development, employment and youth development etc, the second and third pillars have security and rule of law, infrastructures, public sectors reforms, good governance, transparency and anti-corruption, among others as the areas of focus. These are to be pursued through financing and planned implementation strategies (NPC, 2004).

NEEDS was a foundation for the realization of the millennium development goals (MDGs). The MDGs are time bound development goals which the UN millennium summit set in September, 2000. The MDGs aimed at addressing the issue of poverty and hunger, education, gender equality and women equality, health, environmental development and global partnership for development (FGN, 2007).

In 2007, when Umar Musa Yar' Adua took over power, the SPA for national development was again put in place. It has security and rule of law, food security, education and national development, transportation, power and energy, land reform and wealth creation as its focal points. The vision and principles of the SPA are not different from the previous development programs neither are the strategies of realizing the target different. Education and national development is therefore what this study is focusing on, particularly tertiary education.

Tertiary education(TE) refers to the educational level which follows the completion of a secondary education such as a high school, secondary school or gymnasium. This level of education is also refers to as third stage, third level of post-secondary education (Wikipedia, 2010). Colleges, universities, institutes of technologies and polytechnics constitute the main tertiary institutions. TE includes teaching, research and applied work, which leads to the award of certificates, diplomas or academic degrees.

TE are of two types viz, higher education and further education (FE). HE includes undergraduate and post-graduate while FE has to do with vocational education and training. Actually, tertiary education is synonymous with higher education (Campbell and Roznayai, 2002). Though the completion of TE results in the award of academic degree, there are students who do not get anything due to poor performance. High performance is required from students in TE. Tertiary (higher) education is considered very important to all national economies, whether developing or developed, because it is an industry in its own right and a source of trained and educated personnel for the entire economy.

The organization, management and delivery of tertiary education can help countries achieve their economic and social objectives. The pace and character of any national development is determined by the human resources of that nation. While capital and natural resources are necessary

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for production, they are passive. Human personnel and knowledge is the sufficient ingredient for any national development because it is active (OECD, 2008; Todaro, 1980). It also organizes and coordinates all other inputs of production. Thus, the place of economics of education in national development cannot be ignored.

Aguti (2001) and Todaro (1980) agreed on the profile of tertiary education in sub-saharan Africa, and by extension Nigeria. The profile include public expenditure on education, environment, income for the universities and other institutions for infrastructures and development needs in schools; literacy level and rates, student-teacher ratio, student per school/ class ratio, etc. The challenges and problems facing higher education SSA include management of human and material resources for maximum output, funding of tertiary institutions. In most cases the budgetary allocation to education, and to higher education is quite inadequate and below acceptable requirement.

The human development index consists of the education index, GDP index and life expectancy index. These three components measure the educational attainment, GDP per capita and life expectancy respectively (UNDP, 2008). The education index is measured by the adult literacy rate (with two-thirds ratio requirement), and the combinations of primary, secondary and tertiary education gross enrollment ratio (GER). The GER has a requirement of one-third ratio. The adult literacy defines the ability to read and write. The GER indicates the level of education attained from nursery/primary school to post-graduate education. 1 is the highest possible theoretical score, which indicate perfect education attainment. All countries rated as developed nations have a minimum score of 0.8 and above. Majority of developed countries score 0.9 and above. In the whole SSA countries, only S/Africa, Gabon, Mauritius and Namibia scored above 0.8 with the potentials for growth. Nigeria scored a ratio of 0.648 in education attainment which is steady. Most countries in SSA scored 0.5 and below.

The 2007/2008 Human Development Report also gave the literacy rates of different countries. A literacy of 99.0% was assumed for high income countries (UNDP, 2009). In the SSA, Equatorial Guinea has the highest literacy of 86%, followed by Namibia, Sao Tome and Principe, Mauritius and Gabon with 85%, 84.9%, 84.3% and 84.0% respectively. South Africa, Nigeria and Ghana have literacy rates of 82.4%, 69.1% and 57.9% respectively.

Most developing nations have invested heavily in tertiary education, most of which were built along what is obtained in former colonizing countries. Enrollment capacity and the graduates turned out from these countries have grown substantially over the past three - five decades. According to Bar and Shute (2006), the enrolment ratio increased from 2.1 in the 1980s to 7.2 in the 1990s. This statistics are even more impressive for the Latin America, Caribbean and the Asia regions. In Nigeria students' enrolment grew from 57,742 in 1980 to 1,136,484 in 2007, an increase of 1,868%. Similarly, the enrolment ratio increased from 13 in 1986 to 164 in 2007 (CBN, 2008). There was a decline in the ratio of student per school, from 4,442 in 1980 to 3015 in 2007 but the student -teacher ratio grew from zero to 63 in 2007.

The TE policy is becoming increasingly a national agenda. It has become widely accepted that TE is a major driver of economic competitiveness, especially in today's knowledge driven global economy. This means emphasis on high quality TE is a must given its increasing and changing scope and importance. Forty years ago this sub-sector covered mostly teaching and learning, which focused on high level conceptual and intellectual skills in humanities sciences and social sciences, as well as the preparation of student graduates for career in limited professions notably medicines, engineering and law. Today, tertiary education has become diversified (OECD,2008). Tertiary institutions such as polytechnics, universities, and technological institutes were created to develop a closer relationship between TE and the outside world. TE is now responsive to labour market needs and the need to enhance social and geographical access to higher education as well as providing high level occupational preparation in a more applied way. Thus, TE contributes to social and economic development in four major aspects. These include, formation of human capital through teaching;

building of knowledge economy through research and knowledge development; dissemination and use of knowledge by interacting with users, which involves storage and transmission of knowledge.

Serious reforms are taking place in the TE sub-sector with a view to refocusing it to respond more to the needs of the society and the economy. These reforms are seen in the trend, being experienced within the sub-sector. The main trend includes diversification of provision, expansion of TE systems, new funding arrangements, increasing focus on accountability and performance, global networking, among others. Since the early 1980s, the key focus of TE policy has been quality. Funding of TE has taken the approach of resource targeting and performance based funding. Students' enrolment for the whole world increased from 68 million in 1991 to 132 million in 2004. Also, the world's average annual growth in TE over the same period (1991 – 2004) was 5.1% (OECD, 2008). The key policy objectives for the TE system should include matching funding strategies with national priorities, assuring and improving quality, achieving equity, strengthening TE relationship with the labour market, redefining the role of TE in research and innovation and national development, among others.

The picture of tertiary education in most developed economies shows a strong relationship between TE and development through proactive government policy in Finland and South Korea, informal relationships in North Carolina (Pillay et al, 2009). Education tops the policy tree because of the importance of higher education for economic development. Higher education policies in these economies reflect their economic policies.

The study by Macgregor (2009) in respect of higher education in Africa is also very rich and impressive. This study covered eight African countries: Botswana, Ghana, Kenya, Mauritius, Mozambique, South Africa, Tanzania and Uganda. It is worrisome and shameful that Nigeria was not included in this case study. This shows that Africa governments, out of excitement are determined to invest in tertiary education but there is an absence of a development framework for the universities. The role of TE in Africa in development, especially economic development is influenced by three factors: (i) the pact between universities, political authorities and the society. Such relationship focuses only on personal and individual development rather than translating same into policies. Education is therefore pursued only for personal self and advancement; (ii) the nature, management, size and officialization of externally funded projects. This factor tends to promote investment in education but the ideals are not realized; (iii) equity and development factors, which focus is on the nature, size and continuity of the academic core. The core needs to be strengthened as part of development if not development cannot take place as desired. Only Mauritius has applied the notion of equity and development in tertiary education with impressive transformations from mono-crop to manufacturing and now service dominated economy. Almost all African nations shy away from knowledge and development but focused so much on only basic education challenges.

Most policies reflect the traditional or "new instrumental" ideas of higher education. The traditional idea sees TE as a mere producer of manpower for the society, while the new instrumental idea focuses on producing skilled professionals, such as scientists and engineers. What we need is TE that should be the engine of development such that the tertiary institutions serve as the electricity to generate development in the new knowledge economy.

The Model

The OLS technique with the multiple regression approximation was used. All the assumptions guiding the OLS are in place. The theoretical model is stated as $GDP = f(\text{literacy rate, enrolment ratio, expenditure on education, student-teacher ratio, student per school ratio})$

... (1)

The GDP is a proxy for national development, which is the dependent variable. The five factors on the left hand side of equation (1) are independent variables. The essence is to establish the relationship between TE and development whether strong or weak, measured by the coefficient of determination (R^2). Literacy rate and enrolment ratio measure education attainment of Nigeria, while student-teacher and student per school ratio measure the quality of graduates from tertiary

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education institutes (TEIs). The higher the coefficients of literacy rate and enrolment ratio the better, while the coefficient for the student-teacher and student per school ratio are expected to be lower.

The regression equation is specified in equation (2):

$$GDP = a_0 + a_1LR + a_2ENR + a_3STR + a_4SPSR + a_5EXTE + U \quad \dots (2)$$

Where LR is literacy rate, ENR is enrolment ratio, STR is student-Teacher ratio, SPSR is student per school ratio, EXTE is expenditure on tertiary education, and U is the error term. The a_i are the parameter coefficients of the variables.

As per a priori, all the variables are expected to have positive relationship with GDP except student-teacher ratio and student per school ratio which are expected to be negative.

Data for twenty-seven years, 1980 – 2007 were collected and compiled from various issues of CBN statistical bulletin and the various issues of statistical bulletin of the National Bureau of Statistics (NBS).

Table 1. Nigeria: GDP and Tertiary Education Statistics, 1980 – 2007

Year	Real GDP	Literacy rate	Enrolment ratio	Student-teacher ratio	Student per school ratio	Expend. On education
1980	31546.80	-	13.00	-	4442.00	-
1981	205222.1	-	16.00	-	4663.00	-
1982	199685.3	-	19.00	-	4582.00	-
1983	185598.1	-	24.00	-	4363.00	-
1984	183563.0	-	27.00	-	4327.00	-
1985	201036.3	-	24.00	-	5262.00	-
1986	205971.4	42.00	24.00	-	4658.00	-
1987	204806.5	42.00	28.00	-	5379.00	-
1988	219875.6	49.30	108.00	-	5658.00	-
1989	236729.6	50.10	118.00	50.10	2107.00	-
1990	267550.0	52.20	122.00	52.10	2462.00	246.90
1991	265379.1	54.00	124.00	54.00	2613.00	904.20
1992	271365.5	54.70	130.00	54.00	2951.00	850.00
1993	274833.3	55.00	133.00	55.00	3009.00	823.70
1994	275450.6	55.00	133.00	57.00	3068.00	838.80
1995	281407.4	55.00	138.00	57.00	2343.00	4902.10
1996	293745.4	57.00	138.00	57.00	2496.00	14113.90
1997	302022.5	57.00	138.00	57.00	2451.00	2819.10
1998	310890.1	57.00	138.00	57.00	2451.00	12172.80
1999	312183.5	57.00	144.00	57.00	2847.00	488.70
2000	329178.7	57.00	144.00	57.00	2932.00	14113.90
2001	356994.3	60.00	147.00	58.00	2945.00	1268.00
2002	433203.5	60.00	148.00	58.00	2995.00	61149.10
2003	477533.0	62.00	149.00	58.00	2999.00	248768.1
2004	527576.0	67.00	150.00	60.00	20004.00	337217.6
2005	569931.4	67.00	154.00	60.00	3093.00	42815.20
2006	595821.6	68.00	156.00	62.00	3013.00	487113.4
2007	634251.0	69.10	164.00	63.00	3015.00	747690.0

Source: CBN Statistical Bulletin 2008, NBS Statistical Bulletin, various issues.

Result and Discussion of Findings

$$GDP = 125838.40 + 723.17 LR + 888.22 ENR + 364.92 STR + 3.03SPSR + 0.44EXTE$$

... (3)

t	(3.43)	(0.55)	(0.91)	(0.24)	(0.75)	(5.47)
	36642.81	1317.55981.86	1533.504.03	0.08		

$$R^2 = 0.828 \quad \bar{R}^2 = 0.789 \quad F = 21.193 \quad DW = 1.377$$

In terms of the prior assumption, all the signs of the coefficients are correct except the signs for STR and SPSR, which are positive rather than being negative. In terms of magnitude, the coefficients are robust except for expenditure on tertiary education. Tertiary education enrolment has the greatest impact on national development followed by literacy rate, Student-teacher ratio and student per school ratio. Expenditure on TE has the least effect on development. An increase in enrolment by one unit increases national development by 88,822% whereas a same unit increases in literacy rate will increase development by 72, 317%. At 5 % Level of Significance, all the variables are statistically significance in influencing national development except expenditure on TE which is rejected as insignificant.

From the results, there is a very strong relationship between TE and national development as reflected by the coefficient of determination (R^2) and the coefficients of enrolment and literacy rate. Education attainment in Nigeria is achievable but is not being realized due to policy conflicts. The study shows the student-teachers' and student per school ratios to be high as against being low. These high ratio impacts negatively on the quality of graduates from tertiary education sub-sector. The implication is that the manpower needed for national development would be of lower quality. This is an indication that no clear role is allowed for tertiary education in national development other than just providing education and learning to the Nigeria populace. The coefficients for STR and SPSR show the rate of growth in tertiary education in Nigeria. This implies that Nigeria tertiary education is one of the fastest growing sub-sectors in Africa. The ratio also show quality deficit because the number of students to a teacher in the University and other tertiary institutions is very high-about 400 students to a teacher. There is always overcrowding in the classes/lecture rooms.

The funding of tertiary education in Nigeria is inadequate reflected by the education expenditure coefficient of 0.44. Despite the huge funds allocated to TE , the low funding coefficient is an indication of mismanagement and misappropriation of funds meant for TE.

Conclusion

National development is the ability of a country to improve the social welfare of her people by providing social amenities like good education, pipe-borne water and others. Education attainment is a crucial beginning if TE is to contribute to national development. Nigeria has great potentials for attainment of education but inadequate funds and mismanagement are the inhibiting factors to deal with. TE has a strong impact on economic and national development, and it is able to contribute positively in realizing the SPA for national development. The Student-teacher ratio and the Student per school ratio are still too high, in addition to the inadequate funding and misapplication of funds meant for Tertiary education sector. Thus, TE need to be repositioned and be in a very good shape to help realize SPA.

Recommendations

- i. There is the need to create a definite and proper role for TE in national development. Knowledge must be linked with development. The present scenario where TE focused only on the challenges of basic education is not enough. What Nigeria needs today is entrepreneurial universities and TE, where people's capacity to relate research work to what actually happens in the economy is created and developed. TE should be made to identify and support national development needs and strategies for realizing such needs, of which the SPA is one.
- ii. The high ratios of student-teacher and student per school indicates quality deficit in the TE sector. National commitment to quality should be built into TE policy with clear quality

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assurance system and expectations. Such quality framework must be linked with its contribution to the social and economic development of the country.

- iii. Funding of TE should be consistent with their goals and objectives, which must include expansion, quality, cost effectiveness, etc. Such funding approach should be transparent, fair, based on accountability and institutional autonomy and be demand-driven. This should incorporate long term strategies, such as investment plans to raise additional resources. This funding strategy would reduce the present mismanagement and misapplication of allocated resources.
- iv. To reduce the high teacher – student and student per class ratios, growth in TE institutions should match the growth in population. The available TE institutions cannot cope with the population of students seeking admission. This calls for both the public and the private sector players to invest substantially in establishing more universities and TE institutions. A committed public and private sector partnership will also help in this direction.

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