

AN EMPIRICAL INVESTIGATION OF THE FUNCTIONALITY OF NIGERIA'S TERTIARY EDUCATION SYSTEM

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Abstract

The paper x-rays the Nigerian tertiary education system and examines how functional it has been. It argues that the system has been predominantly non-functional, and identifies some factors responsible for the problem. Some of the factors identified are weak commitment of the Nigerian government to the nation's tertiary education system, manifested in poor funding of the nation's higher institutions of learning; incessant strikes; poor implementation of educational policies by relevant authorities; inadequate skilled, qualified and experienced teachers in several departments in the institutions; prevalence of corrupt practices in the higher institutions; weak educational foundation (at the primary and post-primary level), etc. The empirical analysis involving the ordinary least squares (OLS) estimation technique finds no evidence of significant relationship between tertiary enrolment and real GDP (RGDP), though it finds significant positive relationship between number of universities and the RGDP. Considering the strong linkage of higher education to national development, the paper argues that the non-functionality of Nigeria's tertiary education system constitutes a clog in the country's wheel of economic progress. It calls for urgent reforms in the system to enhance its contribution to human and national development. Recommendations for policy consideration include strong commitment of government (by way of improved funding) to strengthening the nation's higher institutions and making them more functional; training and retraining of teachers in the institutions; strong commitment to primary and post-primary education; constant review of school curriculum to reflect/accommodate new developments, etc.

Keywords: Functional education, tertiary education, national development

Introduction

Education, also referred to as investment in human capital development in the field of Economics, its counterpart being investment in health, is a potent instrument for national development. It is the tool with which values, knowledge and skills are acquired, and the proper application of these acquisitions in the process of nation building paves way for national development. Education, no doubt is indeed an investment, and investment in human capital development plays a crucial role in productivity growth at both micro and macro levels (Dauda, 2010; Obasanjo, 2012), as human capital occupies a prime place in coordinating other factors of production (Ogboru, 2008). Productivity of labour and productivity of capital, as seen in the various growth theories are key determinants of national and economic

development. Ibidapo-Obe (2007) sees education as a major tool for national socio-economic development and for individual socio-economic empowerment and poverty reduction. Education is a key development index (Odukoya, 2009) and plays a complementary role for the overall individual, social and national development (Sharma, 2011). Thus it equips human resources with the needed knowledge, skill and competences which would make them functional and contribute to the development of the nation (Dauda, 2010, p.158). Little wonder the United Nations Education, Scientific and Cultural Organization (UNESCO) and the United Nations Report on the world Social Situation (as cited in Todaro and Smith, 2005) see education as key to human, social and economic progress or development.

Just like other investments, investment in education requires cautious planning and dogged commitment to implementation. When an investor sets out to invest in any project (be it short-term or long-term), he first sits down to plan with the expected returns on his mind. (No investor plans to fail). This planning could be short, medium or long range and could be done solely by the investor or with the assistance of other experts in the field or sector in which he intends to invest. This is done on the premise that *failing to plan invariably implies planning to fail*. A shrewd or astute investor identifies the areas where there are great needs in the economy and strives to meet those needs. In the same way, education should be strategically planned and targeted at meeting specific or particular needs in the economy so that at the end, one would be able to evaluate the entire process to ascertain whether or not the desired objectives have been achieved.

The Oxford Advanced Learners English Dictionary defines education as *the process of training and instruction, especially of children and young people in schools, colleges, etc, which is designed to give knowledge and develop skills*. Education is defined in the Encyclopedia Americana as *the process by which an individual gains knowledge or insight or develops attitude or skills*. The World Bank in its World Development Report (1998/1999) sees education as *the key to creating, adapting and spreading knowledge*.

The word, functional, has been defined in the Thesaurus as *useful, practical, handy, purposeful, efficient, well designed...* Drawing from the foregoing definitions, we can therefore define functional education as the process of training and instruction, designed to develop knowledge, insight, attitude, values and skills that are adapted to particular functions or use, in a nation's quest for development. In other words, it is the process of acquiring knowledge, skill, values, insight and attitude that can be practically employed or applied, purposefully. For it to be truly and fully functional, the interests of the students must be taken into consideration, thus in Western Europe, the term "functional education" refers to *education that comes from the child's needs, and uses the child's interest as a*

mechanism for activating him towards his desirable activities, and whose purpose is to develop the life of the mind, that acts from the wholeness of organic life, with relation to practical life in the present and in the future (Zeilberger, 1961). Functional education, in any of its variants - literacy programmes, vocational education, science education, teacher training and educating persons with disabilities – as identified in Abraham (2011), therefore equips and braces up the child for the challenges of the present, while at the same time, preparing him to face the challenges of the future as they arise. Thus, functional education (not just education) is an important ingredient for national development, as the mental or intellectual development of the individual inevitably results in the development of the nation, *ceteris paribus* (all things being equal). Through functional education, concrete and usable knowledge, insight and skill, not theories and abstract, are acquired and it is the planned and guided application of these that engenders national development which has been defined as *the ability of a country or countries to improve the social welfare of the people e.g. by providing social amenities like quality education, portable water, transportation infrastructure, medical care, etc.* (www.wiki.answers.com).

The objective of this paper is to examine how functional tertiary education in Nigeria has been with a view to recommending appropriate measures that would help restore functionality in the Nigerian tertiary education system.

Literature review

Review of some education systems in Nigeria since the 1970s

Several educational reforms have been embarked upon in Nigeria from pre-independence era to date. It was the concerted effort of some notable Nigerians who agitated for self rule, that led the British colonial Masters to change the education system in operation in 1954 from the 8-6-2-3 (eight years of primary education, six years of secondary education, two years of higher school certificate(HSC) and three years of tertiary education) to the 6-5-2-3 system (six years of

primary education, five years of secondary, two years of a higher school certificate education and 3 years of tertiary education) (Awanbor, 2010). The education offered under these systems was described as parochial, elitist, regurgitate and irresponsible to the need and aspirations of the Nigerian society, and criticized for having irrelevant curricula and employing obsolete methodology which resulted in high drop-out and repetition rates as well as the production of graduates who were dependent and low on initiative (Rwomire, 1998 and Woolman, 2001, as cited in Imam, 2012). The 6-3-3-4 educational policy whose history dates back to 8th September 1969 during the International Literacy Day when the idea was conceived at the National Curriculum Conference inaugurated by the then federal commissioner for education - Mr Wenike Briggs, was later formulated in 1976 (Omolewa, (1986) as cited in Babafemi, (1999) and Awanbor (2010); Imam, (2012)) and was designed to inject functionality in the Nigerian school system and fashioned to produce graduates who would be able to make use of their hands, head and heart. The system stipulated six years of primary education, three years of junior secondary education, three years of senior secondary education for those who are academically inclined or three years of technical or business education and four years of higher (tertiary) education. The 6-3-3-4 system was actually job oriented and envisaged a functional education which enabled its recipient function economically, socially, politically, morally and intellectually (Babafemi, 1999). The system which took after the American system of education emphasized the acquisition of vocational skills used as foundation to both technology and engineering at the secondary level, while the tertiary stage was professionally oriented with the aim of development (Awanbor, 2010). However, the policy failed to achieve its objectives and the failure was blamed on poor implementation attributed to non-availability of materials, fund, personnel and administrative will. As a matter of fact, the Vanguard Newspaper of June 28th, 2012 reported that even President Jonathan while speaking at the National Stakeholders Meeting on the Education Sector on October 28th 2010, lamented the failure of the policy and called on its proponents to apologize to Nigerians.

The 9-3-4 system was introduced in 2006 by the then Minister for Education, Mrs Oby Ezekwesili. It stipulated an uninterrupted nine years of basic education (basic 1 to 9), three years of senior secondary or technical/vocational education and four years of tertiary education. This system was actually seen as the short form of the 6-3-3-4 system, as basic 1 to basic nine was virtually the same as Primary 1 to 6 and Junior Secondary 1 to 3. Though some successes were recorded with this system, evidenced in the significant increase in school enrolment, perhaps engendered by free feeding, donation of free books, and abolition of school fees at the basic levels by the government, the system was also bedeviled by some of the problems that also plagued the 6-3-3-4 system and was soon dropped and replaced with the 1-6-3-3-4 system in October 2011 by the new Education Minister, Professor Ruqayyatu Ahmed Rufa'i. The new system is a modification of the 6-3-3-4 system to include one year of Early Childhood Education (ECE) for children who are five years of age.

It could be seen from the foregoing that all the education systems implemented after the 6-3-3-4 system were actually modifications of the 6-3-3-4 education system which as stated earlier, was designed to inject functionality in the Nigerian school system. In spite of the criticisms that have been directed against it, many still believe that it was the best among all the systems.

Tertiary education in Nigeria: how functional?

Nigeria's tertiary education system is made up of three categories of institutions namely Colleges of Education, Polytechnics/Colleges of Technology and Universities. The Colleges of Education are basically for training of middle level manpower in teacher education. Training at the colleges of education has a minimum duration of three years leading to the award of the Nigeria Certificate in Education which qualifies candidates for teaching appointment in primary, junior or senior secondary school. Several Colleges of Education in Nigeria (in affiliation with approved universities) award degrees after training candidates for a minimum of four years. The Polytechnics/Colleges of Education are essentially for the training and

production of middle level technical manpower. These institutions award two types of certificates-National Diploma (ND) the Higher National Diploma (HND), each with minimum duration of two years. The ND certificate with at least one year of industrial training experience qualifies one for admission into the HND programme. However, several polytechnics and colleges of technology also run programmes (in affiliation with approved universities) leading to the award of degrees. The universities are essentially for training and development of top level manpower. They award bachelors degrees and higher degrees such as the masters and the PhD degrees. Diplomas such as ordinary university (or national) diplomas and postgraduate diplomas are also awarded (Ibidapo-Obe, 2007).

As at August 2012, Nigeria's tertiary education system comprised of 122 universities (36 Federal, 36 State, and 50 Private), 71 polytechnics, 47 monotchnics and 79 colleges of education unevenly spread over the country (Bamiro, 2012). These institutions were established to instill functional education in the Nigerian people to enhance their contribution to national development. How functional has tertiary education in Nigeria been? Though the key objective of educational policies over the years has been to introduce functional technology-based education which could sustain the economy (Fabunmi, 2005), achieving this objective has been elusive. The failure of the policies has been blamed on several factors, among which is the lack of government's commitment towards realizing them and the inability and/or reluctance of the policymakers to implement the requirements of the policies to ensure actualization of the objectives and goals. Sadly, tertiary institutions in the country had been bedeviled with multiple problems which make it impossible for them to produce graduates who are actually capable of working with their hearts, heads and hands. Even the Nigerian government appears to admit the popular notion that *some* of the graduates produced by tertiary institutions in the country are *half baked*, implying that they were taught only the theories of practical courses. Thus preference is always given to Nigerians who had their degrees or other educational certificates abroad when it comes to

appointment or placement in key positions in the nation's public offices/establishment. It also seems to admit that graduates of tertiary institutions in Nigeria are *half baked* when foreign contractors are preferred to local or indigenous contractors (even when they have equal capacity) when it comes to awarding major contracts. It also admits that the Nigerian tertiary education system is non-functional when it takes pride in awarding scholarship to selected citizens to study abroad, in spite of availability of resources which could be used to upgrade the local tertiary institutions to the standard of the foreign institutions to which it sponsors the students, thereby saving the nation foreign exchange which could be deployed into other growth-enhancing exigencies. The Nigerian government admits the non-functionality of the tertiary education system when lawmakers are sponsored abroad for programmes or courses that would enhance their capacity to make laws in spite of the availability of similar programmes or courses in the nation's tertiary institutions. The Nigerian government perceives that the nation's higher education system is non-functional when top political office holders (and other high net worth individuals) send their children abroad for university or college education. Furthermore the Nigerian government admits that the nation's education system has been non-functional when public office holders and politicians are frequently flown abroad for medical care which they could easily get from Nigeria's health institutions with home trained health personnel.

In the light of the totality of the foregoing, it could be argued that the Nigerian government believes that the country's tertiary institutions exist to impart knowledge that is non-usable. In other words, they exist to teach abstract and theories and to produce *textbook graduates*. The low global rankings of Nigerian Universities attest to this. It is heart-rending to note that in spite of the lackluster in the system, nothing has been or is being done to turn around the situation, than formulating policies which are never fully implemented before they are dropped. It is also heart-rending to note that a good number of Nigerian undergraduates are not sure of having an outlet (by way of employment) to apply the knowledge or skill (if any) they are currently acquiring upon graduation, to

contribute to the development of the nation since foreign certificates, diplomas or degrees are preferred to local ones in most establishments (public and private) in the country. All these constitute a clog in the country's wheel of economic progress.

Factors affecting the functionality of tertiary education in Nigeria

Factors adversely affecting the functionality of tertiary education in Nigeria include:

Weak commitment of Nigeria's government to the nation's tertiary education system, evidenced in poor funding of the nation's higher institutions: This has always been cited as a major bane to the development of the institutions. Inadequate funding adversely affects research and development and the provision of infrastructure/equipment and materials required for training and/or practical learning, etc. The end result is that theories and abstract, rather than practical skills are imparted and so the institutions produce graduates who cannot practice what they have been trained to do. Thus we have Medicine and Surgery graduates who cannot successfully perform simple surgical operations; Engineering graduates who cannot fix simple engineering problems; Applied and Industrial Mathematics graduate who cannot apply their Mathematics knowledge to solving industrial and other real-life problems that require such knowledge to tackle; Economics graduates who cannot do simple economic analysis or proffer solutions to simple economic problems; 'Trained teachers' with the National Certificate of Education (NCE) and other education certificates, diplomas and degrees who cannot teach or impart knowledge; Computer Science graduates who cannot accurately write and run simple programmes, etc. These tend to underscore the fact that the tertiary institution system in Nigeria has been predominantly, non-functional, a clear contradiction of the goal of the nation's educational system which is *to provide functional education for the nation so that the products of the system can be employable or self-employed* (Ibadapo-Obe, 2012) and a clear violation of the expectation of the 2004 National Policy on education that higher education is expected to contribute to national development

through high level relevant manpower training (Ekundayo and Ajayi, 2009).

Incessant strikes in the nation's tertiary education system: Frequent occurrences of industrial actions in the nation's tertiary education system also contribute significantly to the functionality challenges faced by the system. The inability or the reluctance of the government to attend to the need/demands of academic (and non-academic) staff of tertiary institutions in the country has always engendered strikes which result in disruption of academic activities in the nation, and these disruption significantly, adversely affect impartation of functional knowledge and skills.

Poor or faulty implementation of educational policies: The failure of educational policies over the years has been blamed on faulty or poor implementation. This has been described as a conspicuous national problem that has taken centre stage in the country (Okoroma, 2006), and it has a direct linkage to the weak commitment of Nigeria's government to the development of the nation's tertiary institutions. Virtually all the policies on education in Nigeria have, *inter alia*, the lofty goal of ensuring functionality of the nation's education system, however, the policies are never fully implemented before they are dropped and new ones formulated. Most of the policies on education that have been formulated in the country over the years have also been described as being faulty or inadequate, due to poor planning, not properly addressing the problem in the sector (Imam 2012). Faulty policies as well as poor implementation of policies have always been fingered as some of the factors contributing to the non-functionality of the nation's education system.

Inadequate skilled, qualified and experienced teachers/lecturers: Although the authorities of tertiary institutions in the country have often cited and complained about problem of inadequate funding, yet it should be noted that even the institutions also contribute significantly to the non-functionality of the system. How is this so? Let us begin answering this question by saying that it takes a skillful and experienced individual to impart usable or applicable knowledge or skill. An inexperienced and

unskilled teacher cannot impart usable skills. He can only impart theories and abstract. A situation where a student who just graduated from the university is employed to teach in same university (simply because he made a second class upper or a first class degree either by “hook” or by “crook”) without any previous teaching experience or real-life application of the course he studied, or knowledge, value or skills acquired while in school, will no doubt result in the impartation of faulty skill to young students because one cannot give what one does not have. It is not uncommon for such individuals to proceed to acquire higher degrees, most times not to acquire more skills but to acquire certificates to facilitate his promotions. If in the corporate world, experience and skill count, why can't same be replicated in the academia?

Prevalence of corruption, illegalities and other malpractices in the tertiary institutions: In Nigeria today, lecturing in higher institutions is viewed as a ‘highly lucrative business’, not because of the fact that lecturers are now well remunerated, but because of the fact that a good number of them take advantage of the weaknesses and loopholes in the system to enrich themselves beyond their remunerations through the sale of textbooks (which are usually not up-to-date) to students who are forced to buy them otherwise they won't get the marks. It is no longer news that some greedy lecturers literally sell good grades to lazy students who can afford the price either in cash or in kind.

Furthermore, the problem of plagiarism continues to plague the nation's tertiary education system. Some teachers/lecturers in tertiary institutions shamelessly plagiarize student's assignments and other works downloaded from the internet without adequately referring and acknowledging the original authors. It is also not uncommon for some lecturers to pay to have their names included as co-authors in works (books, journal articles, etc.) to which they contributed nothing. All these no doubt contribute to the non-functionality of the nation's tertiary education system.

“Terminal-orientation” of education in Nigeria: No doubt, education in Nigeria is not instrumentally (or development)-oriented, but

terminally-oriented as it was in Britain where education was *primarily pursued for the status it conferred* (Ezeaku, 2007, p.162). The non-functionality of the nation's education system could be partly linked to her British colonial heritage. During the colonial era, education in Nigeria was terminally-oriented as the school curriculum, which was liberal-arts-oriented, was designed to produce men who could work in the white man's administrative establishments as clerks, interpreters, forest guards, sanitary inspectors, etc. Working in the colonial masters' establishment was viewed as conferring great status and prestige as it brought them closer to the white men (Ezeaku, 2007; Ogboru, 2008). They were not trained to contribute meaningfully to national development. Formal education at that time was basically designed to confer the status of being called “educated”. The situation appears not to have changed today. The demand for tertiary education among many Nigerians in recent times is derived from the demand for the status it confers and also from the need for employment. A good number of Nigerians seek admission into tertiary institutions to acquire the *status* of studentship (being addressed as undergraduate), with a view to attaining the *status* of a graduate upon graduation and ultimately to gaining employment in *any* sector whether or not their *certificates* (not their skill, because little or no skill had been acquired) qualify them for it. Situations where individuals who trained as microbiologists, engineers, zoologist, etc in Nigeria's tertiary institutions, work in financial institutions as bankers, insurers, etc are common place in the country. It is also not uncommon for graduates of medicine and dentistry to take up full time jobs in the entertainment industry.

Weak educational foundation (at primary and post-primary level): Basic education provides the foundation for the pursuit of higher education (Etuk, Ering and Ajake, 2012). Considering that primary and post-primary schools are the preparatory grounds for tertiary institutions, weak/poor preparation at the basic level will no doubt affect functionality at the tertiary level. Inadequacy of skilled and qualified teachers in Nigeria's basic schools contributes significantly to the weakness of basic education in the country. Though conscious effort is being made

by the Nigerian government to address this problem, the problem still persists. Just recently, the Vanguard Newspaper of Thursday 21 February 2013 reported that 1300 out of 1599 teachers selected from across Kaduna State failed in the tests in Mathematics and Basic Literacy generally conducted for Primary four pupils!

Pattern of admission of students into programmes in the tertiary institutions: Admissions into tertiary institutions in Nigeria are adversely affected/influenced by multiplicity of factors. Those who qualify to be admitted to study particular courses are either not admitted, or they are offered admission into programmes for which they did not apply. Since most young Nigerians are education-thirsty, they accept the contrary offer and end up studying courses that do not match their interests. The consequence has always been that the individuals will go through the programmes without any iota of interest. Functional education cannot be imparted in this scenario.

Pattern of employment in the labour market: Nigeria's labour market could be described as *saturated*, with labour supply outstripping labour demand, resulting in high rate of unemployment. The high rate of unemployment engenders irrational recruitment patterns, with employers placing undue emphasis on graduating grades, usually preferring graduates with first class/distinction and second class upper/upper credit to others with lower grades, irrespective of whether or not they have the skill to function. The irrational recruitment pattern is also manifested in the call for graduates of *any discipline* to apply for certain job vacancies. These elicit negative reactions from the tertiary institutions where the manpower needs of the country are produced and the result is that some students indulge in all manner of malpractices and irregularities to ensure they graduate with grades that are in high demand in the labour market, as well as enroll in just *any* courses (whether or not they have flair for them) because they are sure of getting a job upon graduation with the assistance of either their parents, friends or relative.

Empirical investigations

Model specification

The empirical investigation is based on Solow's (1956) basic production function, stated as:

$$Y = F(K, L) \dots\dots\dots 1$$

Where Y represents output, K represents capital and L represents labour. The function simply states that output is a function of capital and labour employed in its production. The basic Solow model is modified and augmented to investigate the functionality of Nigeria's tertiary education system, i.e. the relationship between the nation's economic development and its tertiary education system. Thus, the augmented and modified Solow model adopted for the investigation takes the functional form:

$$RGDP = F (TERT, UNIV, RECEDU, CAPEDU, GCF, FDI) \dots\dots\dots 2$$

RGDP (real gross domestic product at 1990 basic prices, proxy for national development) has been substituted for Y, FDI represents foreign direct investment, TERT represents tertiary enrolment, and has been substituted for labour, GCF stands for Gross Capital Formation, also known as Gross Domestic Investment calculated as the sum of increase in capital stock and Gross Fixed Capital Formation in a given period, RECEDU stands for federal government recurrent expenditure on education, CAPEDU stands for federal government capital expenditure on education, UNIV stands for number of approved universities in the country (inclusive of federal, state and private), included in the model as proxy for number of tertiary institutions in the country, due to non-availability of compressive time series data on number of tertiary institutions in the country. This is a limitation of the study. Another limitation of the study is the non-availability of complete data on the labour force with tertiary education. To estimate this model, we specify its estimable (log-log) form as:

$$LRGDP_t = \beta_0 + \beta_1 LTERT_t + \beta_2 LRECEDU_t + \beta_3 LCAPEDU_t + \beta_4 LUNIV_t + \beta_5 LGCF_t \xi_t \dots\dots\dots 3$$

L = Natural logarithm, subscript t represents current time period, ξ is the residual (error) term. The *a priori* expectation is $(\beta_1, \beta_2, \beta_3, \beta_4, \beta_5) > 0$.

The ordinary least squares (OLS) estimation technique shall be employed to estimate the parameters of the model. Data used for the

estimation are annual time series data covering the period from 1981 to 2010, and were sourced from the CBN Statistical Bulletin 2012, Federal Ministry of Education and the National University Commission (NUC).

The estimated model after correcting for first-order positive autocorrelation in the preliminary least squares result using the Cochrane-Orcutt iterative method on the assumption that the residuals of the OLS estimates follow a third order autoregressive process, is presented in the table below.

Presentation and discussion of results

Table 1 Estimation Results

Cochrane-Orcutt Method AR(3) converged after 8 iterations
Dependent Variable is LRGDP
30 Observations used for estimation from 1981 to 2010

Regressors	Coefficients	T-Ratio	Prob.
C	10.5829	29.9488	0.000
LTERT	-0.019647	-0.66042	0.516
LUNIV	0.54205	9.2711	0.000
LRECEDEU	0.0018639	0.23760	0.814
LCAPEDU	0.022811	1.6331	0.116
LGCF	0.0057779	0.30711	0.762
LFDI	0.024456	2.2585	0.034

R-squared = 0.98921; R-Bar-Squared = 0.98350
F-Stat. = 173.2428 ; DW-statistic = 1.9438

Source: Author’s estimations using Microfit 4.1 Econometric Package

The above results show that the signs on all the variables, except the TERT variable conform to *a priori* expectations. A further look at the results shows that only the UNIV and FDI variables are strongly significant in explaining RGDP, although the CAPEDU variable is significant at the 6% significance level. Thus the results reveal that no significant relationship existed between tertiary education enrolment and real GDP in Nigeria in the 1981-2010 period. In other words, enrolment in tertiary institutions had no significant effect on the development of the nation’s economy. The significant positive relationship between the number of universities in the country (UNIV) and the real GDP which conflicts with the insignificant negative relationship between enrolment in tertiary institutions and real GDP suggests that universities (federal, state and private) only succeeded in generating income for their proprietors, and by extension, their employees, which ultimately contributed to the expansion of the real GDP, rather than imparting usable skills that would make their enrollees function optimally and contribute to national

development. A 10% increase in the number of universities in the country was associated with 5.42% increase in the real GDP. Further examination of the result reveals that there was no significant relationship between federal government recurrent expenditure on education and the real GDP, while the relationship between capital expenditure on education and real RGDP was significant at the 6% level. The effect of gross domestic investment in the economy, also referred to as gross capital formation (GCF) on real GDP was statistically insignificant, owing majorly to low income and savings levels, while the effect of foreign direct investment on the real GDP was significantly positive. A 10% rise in FDI in the economy was associated with 0.25% increase in the real GDP. This observation stresses the need to put measures in on ground to attract more FDI into the economy, particularly to the growth stimulating sectors such as education, manufacturing, agriculture, etc.

The diagnostic statistics show that the model has a very high goodness of fit as shown by the coefficient of determination (R-squared) and the

adjusted coefficient of determination (R^2). Both show that well over 98% of the systematic variation in the dependent variable is explained by the regressors. The highly statistically significant F-statistics of 173.2428 indicates that the explanatory variables are jointly, strongly significant in the determination of the dependent variable (RGDP). The DW-statistic of 1.9438 indicates absence of first-order positive autocorrelation in the model. The model could therefore be relied upon for policy and forecasting purposes.

Towards functional tertiary education in Nigeria

According to the Final Report of Higher Education Partners of the World Conference on Higher Education Partners held in Paris from 23-25 June 2003, *at no time in human history was the welfare of nations so closely linked to the quality and outreach of their higher education system and institutions*. Woolman (2001, as cited in Imam (2012) opined that there is observable relationship between education and national development in Africa. Considering the strong linkage of national development to the higher education system which makes higher education the bedrock of research for development (Orobosa, 2010), the onus therefore lies on all stakeholders (the government, academia, the students, etc.) to take giant steps towards ensuring the entrenchment of functionality in the Nigerian tertiary education system, transforming it from being terminally-oriented to being instrumentally – or development-oriented. In the absence of functional education, fundamental development problems no doubt loom large and conscious steps must be taken to address the situation. There is dire need for urgent reforms in the nation's education system in general, and in the tertiary education system in particular, to make the sector relevant to the development of the nation. To this end, the following action steps or policy options are recommended.

- ⊕ Solid commitment and strong political will on the part of government towards realizing the lofty goals of education policies, and this entails *inter alia*, adequate funding of the tertiary

institutions as well as strict monitoring of how disbursed funds are utilized by the authorities of the tertiary institutions to ensure accountability as well as curb corrupt tendencies such as embezzlement. The Tertiary Education Trust Fund (TET Fund) and the Universal Basic Education Commission (UBEC) Intervention Fund should be given top priorities and unwavering attention. There is also the need to attract more foreign direct investment into the education sector.

- ⊕ Training and re-training of teachers/lecturers of tertiary institutions to enhance their skill and update their knowledge. This is necessary because the survival of our nation depends on the teachers (Nwalor, *n.d*). Staff recruitment should be based not only on paper qualifications, but also on skill and experience. These are to ensure that members of the academia are equipped with the skill and technical know-how, and are qualified to impart usable knowledge and skill.
- ⊕ Considering that basic education provides the foundation for the pursuit of higher education (Etuk, Ering and Ajake, 2012), primary and secondary/technical education should be given adequate attention to enhance the quality of candidates being turned into the tertiary institutions for training. To this end, issues of poor funding, inadequate staffing, inadequate skilled/qualified teachers, examination malpractices, and other problems affecting primary and post primary education in the country must all be addressed and dealt with.
- ⊕ Cavalevu (1979) defined education as 'adjustment ability to changing situation and environment'. School curriculum at all levels of education should therefore be subject to continuous review to reflect and suit current trends or realities and address current development issues as they arise.

- ⊕ The authorities of tertiary institutions should put measures in place to check corruption and academic irregularities such as examination malpractices, plagiarism, etc. Caution should be exercised in admitting journal or research articles co-authored by more than two authors published in academic journals as basis for promotions and appointments into academic positions in tertiary institutions, as at least one of the authors (in most cases) contributed nothing to the researches but only pleaded with the main author(s) to include their names as co-authors (sometimes after parting with some amount of money), just to be eligible for appointment or promotion. In respect of this, publishers and editors of academic journals should request authors of academic research papers to be considered for publication in their journals to indicate their individual contributions to the papers.
- ⊕ As stated in Ezeaku (2007), education should be geared towards preparing people to undertake specific task and employment functions essential to the transformation of the society, and this demands that educational policies have to be instrumentally oriented, and directed primarily towards the attainment of specific national objectives, the realization of which, should be doggedly pursued.
- ⊕ The regulatory and supervisory bodies of tertiary institutions in Nigeria – the National Universities Commission (NUC), the National Board for Technical Education (NBTE), the Teachers Registration Council of Nigeria (TRCN) should strengthen their regulation and supervision mechanisms to ensure best practices in the institutions and enhance their contribution to national development.

Summary and conclusion

The paper x -rayed the Nigerian tertiary education system and examined how functional it

has been. It argued that the system has been predominantly non-functional, and identified several factors responsible for the problem. Some of the factors identified are: weak commitment of the Nigerian government to the nation's tertiary education system, manifested in poor funding of the nation's higher institutions of learning; poor implementation of educational policies by relevant authorities; inadequate skilled, qualified and experienced teachers or lecturers in several departments in the institutions; prevalence of corrupt practices in the higher institutions; weak educational foundation (at the primary and post-primary level), etc. The empirical analysis showed no evidence of significant relationship between tertiary enrolment and real GDP (proxy for national development). Considering the strong linkage of higher education to national development, the paper argued that the non-functionality of Nigeria's tertiary education system constitutes a clog in the country's wheel of economic progress. It called for urgent reform in the system to enhance its contribution to human and national development. Recommendations for policy consideration included strong commitment of government (by way of improved funding) to strengthening the nation's higher institutions and making them more functional; training and retraining of teachers in the institutions; strong commitment to primary and post-primary education; constant review of school curriculum to reflect new developments, etc.

No doubt, the role of functional education in achieving the much needed national and economic development cannot be overemphasized. Functional education paves way for the overall development of every nation, and makes it stand out among the committee of nations. Irrespective of the amount being budgeted and spent annually (as claimed) by the government on the development of human capital, and irrespective of the number of graduates being turned out every year from the country's institutions of higher learning, if education lacks functionality, national development will be elusive and the attendant ills (unemployment, youth restiveness, criminality, low labour and industrial productivity, etc.) will be inevitable. This paper, to the best of the author's knowledge, is a novel attempt at

empirically investigating the functionality of Nigeria's tertiary education system.

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