

# Spółeczeństwo i RODZINA

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• Świat może być niekiedy groźnym żywiołem  
– to prawda – ale człowiek żyjący wiarą  
i nadzieją ma w sobie siłę Ducha,  
aby stawić czoło zagrożeniom tego świata ••

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# Investment in University Education and Sustainable National Development

## INTRODUCTION

In the quest for development, developing countries have acknowledged that investment in and adequate funding of higher education are viable conditions that facilitate change since the value of education hinges on teaching, learning, research and the production of qualified personnel which are needed for national development<sup>1</sup>. Education is a correlate of sustainable national development. It is a vital element of socio-economic development the world over<sup>2</sup>. This explains why developed nations have invested a lot of resources in education. Education in general and university education in particular, are fundamental to the construction of a knowledge economy required for sustainable national development<sup>3</sup>.

The importance of education to human beings cannot therefore be over emphasized. The relationship between education and development is well established such that education is a key index of sustainable national development, and is often linked to schooling. It has also been documented that schooling improves productivity, health, reduces the level of poverty, as well as bringing about human empowerment. For education to be meaningful, it must be able to make positive impact on the society and should be an instrument for sustainable national development. It is also expected to foster the worth and development of the individual not only for his or her on sake, but also for the general development of the society at large.

The university is an institution of higher learning providing facilities for teaching and research as prerequisites for sustainable national development. University education therefore is meant to facilitate creation of new knowledge and innovation for the overall socio-economic empowerment of individuals and sustainable national development<sup>4</sup>.

<sup>1</sup> UNESCO, *Higher Education in the Twenty First Century Vision and Action*, Paris 2002, p. 49.

<sup>2</sup> J. A. Majasan, *Providing Qualitative Education in Nigerian Schools*, Ibadan 1997, p. 32.

<sup>3</sup> P. Okebukola, *Trends in Tertiary Education in Nigeria*, in: *The State of Education in Nigeria*, Abuja 2000, p. 10-14.

<sup>4</sup> J. B. Babalola, A. Okediran, *Functions of Management: An Overview of Tertiary Educational Institutions in Nigeria*, "Journal of Research in Education" 1997, Vol. 1, No. 1, p. 17-24.

However, the potential of university education in Nigeria to fulfill this responsibility is frequently thwarted by the long-standing problem of finance. As observed by Adetanwa I. Odebiyi and Olabisi I. Aina<sup>5</sup>, one of the major problems now facing the Nigerian universities is the problem of under-funding. The inadequate funding of the Universities has, no doubt, had calamitous effect on teaching and research and universities have been forced to embark on income generating projects, sometimes at the expense of teaching and research, in order to source for funds. The solution seems to lie in increasing the level of investment in university education in Nigeria. Sustainable national development would be a mirage if university education is not properly funded. Investment in university education promotes teaching, research and community service which are the prerequisites for sustainable national development. It leads to the accumulation of human capital, which is the key to economic growth and increased income. It produces knowledge, skills, values and attitude. It is essential for civic order and citizenship and for the reduction of poverty<sup>6</sup>. Based on this background, the study examines the relationship between investment in university education and sustainable national development in Nigeria.

## INVESTMENT IN UNIVERSITY EDUCATION IN NIGERIA

As observed by Jonathan E. Oghanekohwo<sup>7</sup>, higher education funding in Nigeria was done by government or public funding alone before the introduction of Structural Adjustment Programme (SAP) in 1985. Higher priority was accorded to funding higher education, thereby creating a wrong impression amongst Nigerians that funding of higher education is the exclusive preserve of government. Things began to change with the advent of the Structural Adjustment Programme. The benefits of the acquisition of any higher education programme now went largely to the individual as a 'private good' for which beneficiaries and their families should pay<sup>8</sup>. Educational outcomes are products of the complex interactions of the different stakeholders who participate directly in the schooling process (parents, teachers, students, administrators, ministries, etc.) and other agents not directly connected to the educational system. The financing of education should be the function of all the major stakeholders. This is because government alone cannot fund higher education.

<sup>5</sup> A. I. Odebiyi, O. I. Aina, *Alternative Modes of Financing Higher Education in Nigeria and Implications for University Governance*, "International Research Journal of Finance and Economics" 2008, No. 14, p. 1-39.

<sup>6</sup> A. Mingat, R. Rakotomalala, J.-P. Tan, *Financing Education for All by 2015: Simulation for 33 African Countries*, Washington, D.C. 2002, p. 26.

<sup>7</sup> J. E. Oghanekohwo, *Deregulation Policy and Its Implication of the Funding of the University Education in Nigeria*, "Journal of Research on Education" January-June, 2004, Vol. 3, No. 1, p. 204-224.

<sup>8</sup> J. B. Babalola, *Education Costs and Financing Analysis ESP Distance Learning Centre*, Ibadan, 1995, p. 15; P. Okebukola, *Issues in Funding University Education in Nigeria*, Abuja 2003, p. 48.



Many stakeholders are involved in the success of any educational system. The major stakeholders include the governments, educational institutions, parents/guardians and the private sector that employs the output of these institutions. Others include the students and the society in general. In private institutions, the incidence lies mostly on the individual while for the public sector ownership it lays on the public sector. While some studies argue that education service should be above market forces and therefore should be provided free, meaning that government should bear the cost of education, so that the poor in the society can also get education, others believed that not all levels of education ensures equity, but rather there is higher private returns in higher education and as such individuals should be made to bear the cost of their higher education<sup>9</sup>, while funding by the government should be limited to the basic education alone. Ansel M. Sharp, Charles A. Register and Richard H. Leftwich<sup>10</sup> agreed with some studies that proposed costsharing in which those who can afford higher education are made to pay for it, while the government should support the types of education for the poor who may not be able to afford it.

The amount of investment required for a functional university education is enormous and cannot be left to the government alone. It was easier in the early days when the demand for university education was not as high, and the institutions were equally not many. University education in present day Nigeria can only be facilitated through adequate financing from all stakeholders.

The trend in fund allocation to Federal Universities and higher institutions of learning in Nigeria are shown in the tables below given a baseline data of ETF and NUC 2001 and 2002 records.

**Table 1. Source of Funds for University Financing<sup>11</sup>**

| Heading   | Source                   | Percentage (%) |
|-----------|--------------------------|----------------|
| Personnel | Government grant         | 98             |
|           | Other sources            | 2              |
| Overhead  | Government grants        | 45             |
|           | Income from user charges | 49             |
|           | Income from Investments  | 6              |
|           | Government grants (NUC)  | 68             |
| Capital   | Government grant (ETF)   | 12             |
|           | Private sector support   | 10             |
|           | Income from investment   | 4              |
|           | Others                   | 6              |

<sup>9</sup> G. Psacharopoulos, *The Contribution of Education to Economic Growth International Comparisons*, in: J. W. Kendrick (Ed.), *International Comparisons of Productivity and Causes of the Slowdown*, Cambridge Mass. 1984, p. 325-360.

<sup>10</sup> A. M. Sharp, C. A. Register, R. H. Leftwich, *Economics of Social Issues*, Plano 1988, p. 24.

<sup>11</sup> National Universities Commission, *Reports*, March 27, 2001, p. 3-4, 11.

**Table 2. Total Government Grant and Local Income in Federal Universities<sup>12</sup>**

| Institution   | 1                            | 2                    | 3                     | Col 2      |
|---------------|------------------------------|----------------------|-----------------------|------------|
|               | Total Releases (Rec. & Cap.) | Local Income         | Total Income          | % (3)      |
|               | N                            | N                    | N                     |            |
| Ibadan        | 2,509,890,696                | 196,575,448          | 2,706,466,144         | 7.8        |
| Lagos         | 1,955,127,150                | 359,502,258          | 2,314,629,408         | 18.4       |
| Nsukka        | 2,512,793,291                | 98,141,298           | 2,810,834,589         | 3.9        |
| Zaria         | 2,567,587,409                | 73,210,330           | 2,640,797,739         | 2.9        |
| Ife           | 2,304,114,896                | 40,031,187           | 2,344,148,083         | 1.7        |
| Benin         | 1,949,126,834                | 155,172,513          | 2,104,299,347         | 8.0        |
| Jos           | 1,332,790,023                | 48,744,424           | 1,381,534,447         | 3.7        |
| Calabar       | 1,227,113,256                | 105,939,905          | 1,333,053,161         | 8.8        |
| Kano          | 981,801,323                  | 54,218,393           | 1,036,019,716         | 5.5        |
| Maiduguri     | 1,089,098,496                | 137,148,440          | 1,226,248,938         | 12.6       |
| Sokoto        | 651,927,799                  | 39,025,328           | 690,953,127           | 6.0        |
| Ilorin        | 1,472,655,002                | 65,616,425           | 1,548,571,427         | 4.5        |
| Port Harcourt | 1,268,403,040                | 110,415,425          | 1,378,818,465         | 8.7        |
| Abuja         | 402,154,078                  | 84,674,826           | 486,828,906           | 21.1       |
| Uyo           | 1,013,481,643                | 86,476,190           | 1,099,957,833         | 8.5        |
| Owerri        | 611,326,365                  | 29,751,258           | 641,077,623           | 4.9        |
| Akure         | 545,315,202                  | 35,855,281           | 581,170,483           | 6.6        |
| Minna         | 417,130,171                  | 20,549,000           | 437,679,171           | 4.9        |
| Bauchi        | 556,280,147                  | 17,268,097           | 537,548,244           | 3.1        |
| Yola          | 499,590,326                  | 21,962,043           | 521,552,369           | 4.4        |
| <b>TOTAL</b>  | <b>26,669,544,060</b>        | <b>1,815,176,627</b> | <b>28,484,720,687</b> | <b>6.8</b> |

Another notable source of fund for the Federal Universities is the Education Tax Fund (ETF), established under Act No. 7 of 1993. The objective is to improve the quality of education in Nigeria. Table 3 presents a summary of ETF intervention in higher education between 1999 and 2001.

**Table 3. ETF Funding of Higher Education, 1999-2001 in Nigeria<sup>13</sup>**

|  | 1999 (N)         | 2000 (N)       | 2001 (N)       |
|--|------------------|----------------|----------------|
| Universities                                 | 2,041,374,962.50 | 466,000,000.00 | 184,800,000.00 |
| Polytechnics                                 | 1,087,209,288.00 | 369,500,000.00 | 76,926,000.00  |
| Colleges of Education                        | 1,099,137,930.00 | 431,200,000.00 | 181,800,000.00 |
| Monotechnics                                 | NA               | 193,500,000.00 | 89,616,000.00  |
| Interuniversity & Other Government Agencies, | 218,368,885.33   | 117,360,404.50 | 277,000,000.00 |

<sup>12</sup> P. Okebukola, *Issues in Funding University Education in Nigeria*, p. 14.

<sup>13</sup> P. Okebukola, *Issues in Funding University Education in Nigeria*, p. 14.

**Table 4. Grants to Federal Universities through the NUC (1992-2002) and through ETF (1999-2002) – Recurrent and Capital<sup>14</sup>**

| Year | Recurrent         | Capital           | Total            |
|------|-------------------|-------------------|------------------|
| 1992 | 2,312,056,465.00  | 743,805,475.00    | 3,055,864,940.00 |
| 1993 | 3,315,915,278.00  | 590,000,000.00    | 3,905,915,278.00 |
| 1994 | 3,497,456,980.00  | 991,775,000.00    | 4,489,261,980.00 |
| 1995 | 4,720,756,226.00  | 1,518,194,57.00   | 6,238,950,796.00 |
| 1996 | 6,051,136,450.00  | 1,645,596,019.00  | 7,696,732,469.00 |
| 1997 | 3,830,438,010.00  | 1,677,117,302.00  | 5,57,555,312.00  |
| 1998 | 6,628,894,283.62  | 2,565,945,000.00  | 9,194,839,283.62 |
| 1999 | 10,736,131,53.77  | 10,166,681,04.00  | 20,902,812,580.7 |
| 2000 | 28,733,320,663.43 | 5,11 0,170,598.00 | 33,843,491.4     |
| 2001 | 28,742,711,957.09 | 5,878,555,739.00  | 34,68 ,267,696.0 |
| 2002 | 30,644,282,005.00 | 2,050,000.000.00  | 32,694,282,00.00 |

The tables show that funding is still a major pre-occupation of government at both federal and state levels. This led to the stakeholders' National summit on Higher Education, which held in March 2002, where a number of conclusions were reached on the issue of funding of higher education, viz:

1. An increase in the funding levels to universities is required to enable them improve on the provision of facilities and services. Universities must increase their internally generated funding levels.
2. All stakeholders should be challenged to share in the cost of education by paying some fees in order to attain and sustain a reasonable level of funding of higher education in Nigeria.
3. Government should implement and sustain the provision of scholarships, bursaries and loans to ensue that all Nigerians with capacities to seek education at the tertiary level can actualize them.
4. Funding for postgraduate training and research should be enhanced.
5. Accountability and transparency are sine qua non to the management of funds in the institutions and resolved that established mechanisms for checks and balances (including internal and external audits) be strictly utilized.
6. Development partners have great potentials to bring in significant resources to the institutions and agreed that this potentials be comprehensively explained with due cognizance to national interest<sup>15</sup>.

Financing university education in Nigeria today is a crucial national problem. The political, social and economic factors, which are currently having significant impact on the world economy, have necessitated the need to diversify the sources of education

<sup>14</sup> P. Okebukola, *Issues in Funding University Education in Nigeria*, p. 14.

<sup>15</sup> P. Okebukola, *Issues in Funding University Education in Nigeria*, p. 16.

funding, mainly because reliance on only one source of revenue can inhibit educational growth. These are however some possible options of financing higher education:

- Fund from owner government,
- Tuition and fees,
- Gifts, Grants and Endowments,
- Investment income,
- Auxiliaries (Enterprises, Licenses, Parents and Alumni Association),
- Consultancies and Research activities,
- Community Participation, etc.

One of the principal innovations in higher education funding is the performance-based funding. Typically, state funds of Tertiary Educational Institutions are allocated based on input criteria (e.g., number of students). By linking the funding to some measurers of outputs or outcomes rather than inputs, performance-based funding focuses on a completely new perspective. Performance-based allocation mechanisms differ from traditional allocation approaches in the following ways:

- performance-based allocation mechanisms attempt to reward institutions for actual rather than promised performance,
- the use of performance indicators should reflect public policy objectives rather than institutional needs (e.g., size of staff),
- performance-based allocation mechanisms include incentives for institutional improvement<sup>16</sup>.

**Table 5. Comparison between traditional and performance-based allocation mechanisms<sup>17</sup>**

| Traditional  | Performance-based   |
|--|---|
| <b>Negotiated budgets:</b><br>Allocations of state funds are negotiated between government agencies and institutions.<br><br>Categorical funds: categories of Institutions designated as eligible for funds for specific purposes including facilities, equipment and programmes.<br><br>Funding formula: based on size of staff or number of students enrolled. | <b>Performance agreements:</b><br>Governments enter into regulatory agreements with institutions to set mutual performance based objectives.<br><br>Competitive funds: tertiary education institutions compete on the basis of peer-reviewed project proposals against a set of objectives.<br><br>Funding formula based on output (e.g., number of graduates per year) or outcome measurers (e.g., academic ranking of the TEI). |

<sup>16</sup> J. Salami, A. M. Hauptman, *Resource Allocation Mechanisms in Tertiary Education: A Typology and an Assessment*, in: Global University Network for Innovation (Ed.), *Higher Education in the World 2006: The Financing of Universities*, Basingstoke 2006, p. 60-81.

<sup>17</sup> J. Salami, A. M. Hauptman, *Resource Allocation Mechanisms in Tertiary Education*, p. 60-81.



## EFFECTS OF INADEQUATE FUNDING OF UNIVERSITY EDUCATION

Poor investment in University Education has resulted in reduction in the provision of scientific and teaching materials. Quality of teaching has fallen considerably, the libraries are hardly updated in terms of research materials (i.e., journals and books) and the morale of staff is lowered. Allocations to the Universities are grossly inadequate while student enrolments continued to rise. Capital projects to meet the expanding programmes cannot take off or in cases where they took off they had to be abandoned due to lack of funds. The by-effects of dwindling finances in the Nigeria University system are explicated in many adaptive mechanisms such as:

- curtailment of laboratory/practical classes,
- limited number of field trips,
- curtailment in the attendance of academic conferences,
- curtailment of the purchase of library books, chemicals and basic laboratory equipment,
- freezing of new appointments,
- virtual embargo on study fellowships,
- reduction in research grants, among others,
- too narrow strategic profiles and core areas,
- loss of variety in research and teaching,
- close down of studies not in demand at present or expensive,
- lower quality of research and teaching,
- loss of autonomy through increased dependence from external principals (third party funding),
- internal centralization and expansion of administration,
- increased administrative burdens at the expense of research and teaching,
- reduced coordination (harmonization) between universities because of increased competition<sup>18</sup>.

According to Adetanwa I. Odebiyi and Olabisi I. Aina<sup>19</sup>, the inadequate funding of the Universities and other tertiary institutions has had calamitous effect on teaching and research. The universities have been forced to embark on income generating projects in order to source for funds. The available revenue is spent on capital projects, administration, teaching and research, and students' welfare. Capital projects and salaries take a bulk of the total revenue while teaching and students' welfare tend to be given less priority. This tends to be responsible for the incessant student/teachers riots and strike actions respectively<sup>20</sup>.

<sup>18</sup> I. R. Akintoye, *Optimising Output from Tertiary Educational Institutions via Adequate Funding: A Lesson From Nigeria*, "International Research Journal of Finance and Economics" 2008, No. 14, p. 366.

<sup>19</sup> A. I. Odebiyi, O. I. Aina, *Alternative Modes of Financing Higher Education in Nigeria and Implications for University Governance*, p. 13.

<sup>20</sup> A. I. Odebiyi, O. I. Aina, *Alternative Modes of Financing Higher Education in Nigeria and Implications for University Governance*, p. 13.

## TEACHING AND RESEARCH IN NIGERIAN UNIVERSITIES

The Nigerian National Policy on Education spells out the goals of tertiary education in the country to include:

- a) Contributing to national development through high level relevant manpower training;
- b) Developing and inculcate proper values for the survival of the individual and society;
- c) Developing the intellectual capacity of individuals to understand and appreciate their local and external environments;
- d) Acquiring both physical and intellectual skills which will enable individuals to be self-reliant and useful members of the society;
- e) Promoting and encourage scholarship and community service;
- f) Forging and cementing national unity; and
- g) Promoting national and international understanding<sup>21</sup>.

World Bank<sup>22</sup> in clarifying the objectives of universities pointed out that "teaching and research are the intellectual functions" of the universities and they are in connection with the education mission of 'education function' which incorporates "cultivation of the mind" and the "transmission of basic ideas and concepts". Whereas, service is the 'social function' or social role of the university which provides the link between the intellectual and education roles of the university and development of society on the other.

Unfortunately, in Nigeria the current reality that stares us at the face is that in spite of the lofty objectives of education as documented in the National Policy on Education; our education has failed to produce appropriate and commensurate values and development. Education particularly higher education has failed to produce in school leavers a combination of skills and value system that could make them self-reliant. The Nigerian educational system has been beset with a number of ills over the years. These problems arose from the general malaise that beset the leadership and the society at large. Some of these include the high incidence of examination malpractices, extortion, cultism, sexual harassment, and incessant strikes among the various academic unions at all levels of education, as well as problem of data and decay infrastructure, etc. All these have led to fallen standards and the failure to realize the philosophy and the objectives of education.

University education in Nigeria today is in a state of crisis. Complaints are rife from every quarter. Employers worry that Nigerian graduates today are unemployable unless their prospective employers put them through a crash remedial programme. Cases of graduates in the humanities who are hardly capable of putting

<sup>21</sup> Federal Republic of Nigeria, *National Policy on Education*, Lagos 2004, p. 18.

<sup>22</sup> The World Bank, *Constructing Knowledge Societies: New Challenges for Tertiary Education*, Washington, D.C. 2002, p. 27.

a sentence in English language correctly abound, and whose spoken English is even worse. Fresh graduates in engineering have little clue when put in a workshop... Worse still, graduates are unrefined in character<sup>23</sup>.

Aduke G. Adebayo<sup>24</sup> buttressed further the decay in our Universities when quoting the Dean of the School of Agriculture and Agricultural Technology, Federal University of Technology, Owerri, when he decried that: "Nigerian universities are under the siege of decay. There are no facilities for effective practicals for the students in most of our courses, especially in the technological universities, which require a lot of intensive training in terms of how the student can use his hand and how he can use some hi-tech equipment. Most of these equipments are either not there and if they are there they are not functioning, and money is not coming. And in fact, when universities face accreditation exercises, order to scale the hurdle of accreditation, some departments have to borrow equipment from neighbouring and sister institutions and present them, claiming that these are their equipment".

The universities seem to be crippled academically, physically and even morally. It can be observed that Nigerian higher education and University education in particular, is facing unprecedented challenges which make it unable to function effectively as a key force for modernization and development. Nigeria university education faces obstacles in providing the education relevant to her society.

The *Daily Sun* editorial of 14 July 2005 decried "Universities embarrassing science laboratories" and stated sarcastically that it is no surprise that Nigeria's attempt at scientific and technological achievements has so far failed. After an examination of nine universities across Nigeria, it arrived at the conclusion that: "They are saddled with obsolete British imperial system equipment in their engineering workshops. So there are equipments, which are in use, calibrated in imperial units, while the entire world has switched to the System International (SI) units".

Without the right equipment, chemicals, reagents, etc., how could the universities impart the right knowledge in its students how can they fulfill their functions as producers and disseminators of knowledge? How could they advance the society at any level? How could the teachers compare favourably with their counterparts in civilized parts of the world? Little wonder then that most academics are no longer published in reputable foreign journals because they are peddling obsolete ideas.

Aduke Adebayo<sup>25</sup> concluded that the delivery of university education in Nigeria is therefore definitely far from the way the founding fathers conceived it. Its success has been hampered seriously by factors ranging from undue government interference and control through the National universities commission (NUC) and

<sup>23</sup> A. G. Adebayo, *Revisiting the Academic Tradition: 28th Postgraduate School Interdisciplinary Research Discourse 2005*, Ibadan 2005, p. 30-34.

<sup>24</sup> A. G. Adebayo, *Revisiting the Academic Tradition*, p. 30-34.

<sup>25</sup> A. G. Adebayo, *Revisiting the Academic Tradition*, p. 30-34.

the Joint Admissions and Matriculation Board (JAMB), to financial strangulation, lack of planning and prudence, incompetence of both academic and administrative staff, lack of commitment on the part of stakeholders, insalubrious environment that is poisonous to learning, the wrong quality of students, students' fraudulent and cultic practices, among many others.

The increased enrolments in Nigerian universities in the face of dwindling resources into the university system also affect graduate output. Incessant strike actions by academics, non-academic staff and university students also have their part to play. The time available for teaching and learning become disturbingly reduced; university teachers become unmotivated to teach, students become unmotivated to learn, classrooms and laboratories become non-conducive for educational activities, and teaching contents become alarmingly reduced within the time available. With this trend compounding itself, universities in Nigeria increasingly continue to manufacture half-baked graduates from heavily congested and obsolete factories. Contrary to what it was in the earlier stage of university education in Nigeria, today, general commitment to teaching and learning has become extremely very low.

While funding of scientific research can be obtained through different private and public sources, governments, especially in Nigeria, play a dominant role in funding university research, which private sector ignores for lack of commercial value. Whereas research grants to universities are on the increase elsewhere in the world, the flow of such funds has been impeded by certain procedural problems in Nigeria. Efforts to fund university research are equally thwarted by high inflation rates in the country.

Apart from the above there are others challenges like the problem of recruiting the right and qualified teaching staff, retaining and rewarding the caliber of academic staff needed to sustain and improve both teaching and research, maintaining the infrastructure for research and teaching, and the problem of making sure that the investment in university education is properly used<sup>26</sup>.

One of the primary and traditional roles of universities is to engage in basic research that could lead to the advancement of knowledge. Through research and its results, universities are expected to contribute to the improvement of the quality of life, social, economic and technological development in the society. Sabo Bako<sup>27</sup> argued that the most important yardstick for measuring the quality and relevance of higher education research is by its level of contribution to the general economic growth, development, prosperity and democratic empowerment of the citizenry. Nigeria, which has the largest number of higher educational institutions in Africa,

<sup>26</sup> O. C. Nwana, *Aberrations in Nigerian Education Systems*, in: *The State of Education in Nigeria*, Abuja 2000, p. 45-48.

<sup>27</sup> S. Bako, *Universities, Research and Development in Nigeria: Time for a Paradigmatic Shift* – paper presented at 11<sup>th</sup> General Assembly of CODESRIA on *Rethinking African Development: Beyond Impasse, Towards Alternatives*, Maputo, Mozambique, December 6-8, 2005, p. 39.

is equally endowed with the largest human and material resources potential in the continent. The extent to which its economic development is impacted by the changing direction, quality and quantity of research emanating from these ever expanding higher educational institutions is a pointer to the level of commitment of the institutions to the mandate for which they were established.

Research and development has become the most enduring and effective means of boosting sustainable economic development and re-enforcing competitiveness in the face of rapid growth taking place between industries, countries and peoples in the world. There is ample evidence to show that research and development generated by university education, more than anything else, has contributed to the rise and expansion of the world knowledge economy, and the establishment, once again, of imperial knowledge hegemony of a few countries over the rest of the world in the on-going process of globalization and its uneven development. This explains why the main criteria for ranking the 'world class universities' is not so much the volume of teaching, student population or community services a university could muster; but research output measured by the breakthrough findings published in first class and medal winning journals and books, which could increase the volume and rate of knowledge accumulation. This development has made knowledge accumulation to be the most important and dominant form of today's capital accumulation, responsible for launching the advanced countries to the top of the world, by their control of the most advanced social and human capital formation, economic development and improved living conditions. Nigeria, with its abundant natural and human resources, coupled with the number of higher educational institutions, can be 'transformed' into one of the world largest economies if research and development activities are properly harnessed and utilized. This study differs from earlier researches in related areas because of its specific consideration of the demand for higher education research by the productive sector of the Nigerian economy.

As generally agreed, the systematic decline and collapse of research in higher education and universities particularly started from the late 1980s and has persisted till date. Thus, the National Supervising agency of the Nigerian universities, the NUC<sup>28</sup>, noted that "in terms of quality and quantity, the research output of tertiary institutions in Nigeria was about the best in sub-Sahara Africa up to the late 1980s. The wherewithal for research such as good research training and motivation, availability of equipment, and good library facilities pre-dominated, but with the onset and acceleration of the decay in the system, these ingredients faded away. By 1996, the quantity and quality of research had declined to an all-time low level".

<sup>28</sup> P. Okebukola, *The State of University Education in Nigeria*, Abuja 2002, p. 50.

Summarizing the factors that contributed to this decline from the late 1988 to 1996, and subsequent collapse from 1997 to date, the Nigerian Universities Commission listed the following:

- Lack of research skills in the modern methods.
- Constraint of equipment for carrying out state-of-the art research.
- Over-loaded teaching and administrative schedules which leave little time for research.
- Difficulty in accessing research funds.
- Diminishing scope of mentoring junior researchers by seasoned and senior researchers due to brain drain<sup>29</sup>.

The Research paradigm went through two phases in the development of higher education and universities in Nigeria. In the first phase, research was recognized and conducted, supported and intended to improve the productivity of labour and its specialization, and to a greater extent contribute to solving the societal problems. In the second phase, the quantity and quality of university based research has, since the late 1980s, begun to decline gradually to the current level of collapse and virtual disappearance. The kind of thinking that informed the current paradigm is that research is a luxury, at best, or a waste of funds, at worst, and that teaching and production of manpower and other university academic activities could take place and expand without research. It is also the same thinking that informed the institutional definition and distributing of university functions, resources, funding, recruitment of staff, training and sharing of duties and schedules in which research is now completely left out. At the moment, over 99.5 percent, if not all 100 percent, of the Nigerian university activity and time are devoted to teaching and assessing of students throughout the year, without definite official time designated for doing research<sup>30</sup>. Those that must do research could only do so by 'stealing' time out of teaching, or their spare time, or leave, if they manage to secure it. The concept of research as an academic activity for generating knowledge for economic development has not yet dawned on the Nigerian ruling class, policy makers, university administrators and staff.

It is important to recognize that the decline of university education generally and research particularly is a reflection of the degree of chronic under funding which the universities have been subjected to in recent time. It is ironic to note while the number of universities and students' enrollment have been expanding from six universities in 1962 enrolling 3545 students, to 37 enrolling 350,000 in 1998, and in 2005 to 84 universities with about 800,000 total student population, the percentage of the National budget allocated to education and universities has been steadily declin-

<sup>29</sup> P. Okebukola, *The State of University Education in Nigeria*, p. 4.

<sup>30</sup> S. Bako, *Universities, Research and Development in Nigeria*, p. 30.



ing from an average of 30 percent in the 1960s, 15 percent in the 70s and 80s, to 6 percent in the 1990s, and to less than 3 percent in the 2000s<sup>31</sup>.

As confessed by the NUC<sup>32</sup> in an equipment audit it conducted on all Federal universities, it revealed that teaching and research equipment are in the advanced state of decay or are in severe insufficiency. Over 70 percent of the laboratory equipment and library books in today's Nigerian universities, for instance, were bought and placed between 1960s and 1980. This point is further validated by another survey conducted by the NUC<sup>33</sup>, in which it discovers that only about 30 percent of the university student population could have adequate access to class rooms, lecture theatres, laboratories, workshops and libraries.

The official figures of the research grants allocations made to the universities, according to the NUC, between 1989 and 2003 as shown in Table 6 below could be described simply as official distortions.

**Table 6. Research Grant Allocations and Releases to Universities from 1987-2003<sup>34</sup>**

| S/N          | Year of Release | Allocation (Naira)      | Amount Released (Naira) |
|--------------|-----------------|-------------------------|-------------------------|
| 1.           | 1987            | 12,776,000.00           | 12,776,000.00           |
| 2.           | 1988            | 20,000,000.00           | 17,237,875.00           |
| 3.           | 1989            | 20,000,000.00           | 20,000,000.00           |
| 4.           | 1990            | 24,000,000.00           | 22,075,371.00           |
| 5.           | 1991            | 51,266,530.00           | 16,645,034.00           |
| 6.           | 1992            | 14,500,090.00           | 17,472,972.00           |
| 7.           | 1993            | 122,182,102.00          | 122,182,102.00          |
| 8.           | 1994            | 132,213,817.00          | 98,662,255.00           |
| 9.           | 1995            | 155,534,575.00          | 73,973,806.00           |
| 10.          | 1996            | 153,842,000.00          | 50,583,686.00           |
| 11.          | 1997            | 194,013,732.00          | 122,020,447.00          |
| 12.          | 1998            | 215,618,453.00          | 149,993,549.60          |
| 13.          | 1999            | 302,735,543.00          | 183,501,468.00          |
| 14.          | 2000            | 448,127,780.00          | 612,666,910.00          |
| 15.          | 2001            | 206,410,910.00          | 206,410,619.00          |
| 16.          | 2002            | -                       | -                       |
| 17.          | 2003            | 73,435,618.00           | 73,435,618.72           |
| <b>Total</b> |                 | <b>2,146,657,150.00</b> | <b>1,799,637,713.32</b> |

<sup>31</sup> E. O. Ukeje, *Financing Education in Nigeria*, "The Nigerian Social Scientist Journal" 2002, Vol. 5, No. 1, p. 31-48.

<sup>32</sup> P. Okebukola, *Strategies for Stimulating Research and Development in Nigerian Universities*, "Nigerian University Chronicles" 2004, Vol. 12, No. 2, p. 17-18.

<sup>33</sup> P. Okebukola, *The State of University Education in Nigeria*, p. 19.

<sup>34</sup> P. Okebukola, *Strategies for Stimulating Research and Development in Nigerian Universities*, p. 17-18.

Going through the documents from which the above statistics were compiled, distinctions could be made exactly between research grants allocation and the actual releases, as well as between the actual releases and direct research utilization by the universities. From the research Bulletins produced by the National University Commission, for example, out of the total fund budgeted for research between 1999 and 2000, less than twenty percent were actually released to the NUC<sup>35</sup> by Government, while out of those funds, less than 50 percent were actually released to the universities, and out of this allocation less than 3 percent of the money utilized for research.

Because of the shortfalls the universities have been experiencing in the payment of salaries and maintenance services, the bulk of the research grants were vied for these purposes. This is why most of the Nigerian universities find it difficult to account for the research money received<sup>36</sup>. From a survey conducted, less than 10 percent of the academic staff in the Nigerian universities received research grants in the past one and half decades<sup>37</sup>. Without qualitative research, university education cannot contribute meaningfully to sustainable national development.

#### AIM AND OBJECTIVES

The study was carried out to examine the relationship between investment in Nigerian university education and sustainable national development. Specifically, the study sought to:

1. Determine the relationship between the level of investment in Nigerian university education and the quality of teaching for sustainable national development.
2. Determine the relationship between the level of investment in Nigerian university education and the quality of research output for sustainable national development.

#### RESEARCH HYPOTHESES

The following null hypotheses were formulated to direct the study:

1. There is no significant relationship between the level of investment in Nigerian university education and the quality of teaching for sustainable national development.
2. There is no significant relationship between the level of investment in Nigerian university education and the quality of research output for sustainable national development.

#### METHODOLOGY

The survey research design was adopted for the study. This was because the researcher had to gather information regarding the variables under study in or-

<sup>35</sup> S. Bako, *Universities, Research and Development in Nigeria*, p. 23.

<sup>36</sup> F. J. Banji, *University Research Capacity in Nigeria and the Challenges of National Development in a Knowledge-based Economy*, Ondo City, p. 11.

<sup>37</sup> F. J. Banji, *University Research Capacity in Nigeria and the Challenges of National Development in a Knowledge-based Economy*, p. 11.

der to test the hypotheses. The population consisted of all lecturers in the Federal Universities in the south-south geo-political zone of Nigeria, totaling 4266. The universities selected for the study were: the University of Uyo, University of Calabar, University of Port Harcourt, University of Benin, and Federal University of Petroleum Technology, Effurun, Delta State. Three hundred lecturers were randomly selected from the five universities to form the sample of the study. A structured questionnaire tagged "Investment in University Education and Sustainable National Development" (IUESND) questionnaire was developed by the researcher and used in collecting data for the study. The instrument was duly validated using the face and content validation methods and pilot tested to determine its reliability using Cronbach alpha formula 21. This stood at 0.71.

## DATA ANALYSIS, RESULTS AND DISCUSSION

The data collected were analyzed using Pearson Product Moment Correlation analysis.

### Hypothesis 1

*There is no significant relationship between the level of investment in Nigerian university education and the quality of teaching for sustainable national development.*

In order to establish the relationship between level of investment in Nigerian university education and the quality of teaching, the Pearson Product Moment Correlation analysis (r) was performed on scores of items measuring level of investment in Nigerian university education and those measuring quality of teaching in the universities.

**Table 7. Pearson Product Moment Correlation Analysis of the Relationship between Level of Investment in Nigerian University Education and Quality of Teaching in the Institutions**

|                     |                                     | Scores on teachers' salary | Scores on teachers' professional satisfaction |
|---------------------|-------------------------------------|----------------------------|---|
| Level of investment | Pearson Correlation Sig. (2-tailed) | 1.000                      | .376  |
|                     | N                                   | 300                        | 300   |
|                     |                                     |                            | .013  |
| Quality of teaching | Pearson Correlation Sig. (2-tailed) | .376                       | 1.000   |
|                     | N                                   | 300                        | 300   |
|                     |                                     |                            | .013  |

Degree of freedom = 298; alpha = 0.05; critical r = 0.113

The calculated r-value of 0.376 was greater than the critical r-value of 0.113. The null hypothesis was therefore rejected. This implies that there is a significant relationship between the level of investment in Nigerian university education and the quality of teaching in the universities.

### Hypothesis 2

*There is no significant relationship between the level of investment in Nigerian university education and the quality of research output for sustainable national development.*

In order to establish the relationship between the level of investment in Nigerian university education and quality of research output, the Pearson Product Moment Correlation analysis (r) was performed on scores of items measuring the level of investment in university education and those measuring quality of research output.

**Table 8. Pearson product moment correlation analysis of the Relationship between the level of investment in Nigerian university education and quality of research output**

|                                      |                                     | Scores on level of investment | Scores on quality of research output |
|--------------------------------------|-------------------------------------|-------------------------------|--------------------------------------|
| Scores on level of investment        | Pearson Correlation Sig. (2-tailed) | 1.000                         | .381                                 |
|                                      | N                                   | 300                           | 300                                  |
|                                      |                                     |                               | .023                                 |
| Scores on quality of research output | Pearson Correlation Sig. (2-tailed) | .381                          | 1.000                                |
|                                      | N                                   | 300                           | 300                                  |
|                                      |                                     |                               | .023                                 |

Degree of freedom = 298; alpha = 0.05; critical r = 0.113

The calculated r-value of .381 was greater than the critical r-value of 0.113. The null hypothesis was consequently rejected. This implies that there is a significant relationship between the level of investment in Nigerian university education and the quality of research output from the institutions.

### Discussion of Findings

Data analysis in Hypothesis one revealed a significant and positive relationship between the level of investment in Nigerian University education and the quality of teaching in the universities. The calculated r-value was greater than the r-critical, leading to the rejection of the null hypothesis. The finding is supported

by those of other studies. O. C. Nwana<sup>38</sup> observed that the level of funding of university education in Nigeria does not allow for effective teaching and learning. Infrastructural and instructional facilities are in short supply. According to Adetunwa I. Odebiyi and Olabisi I. Aina<sup>39</sup>, the inadequate funding of the Universities and other tertiary institutions has had calamitous effect on teaching and research. The universities have been forced to embark on income generating projects in order to source for funds. The available revenue is spent on capital projects, administration, teaching and research, and students' welfare. Capital projects and salaries take a bulk of the total revenue while teaching and students' welfare tend to be given less priority. This tends to be responsible for the incessant student/teachers riots and strike actions respectively<sup>40</sup>.

The test of hypothesis two indicated a significant relationship between the level of investment in Nigerian university education and the quality of research output from the universities. The calculated r-value was greater than the r-critical. This led to the rejection of the null hypothesis. The quality and output of research in Nigerian University has greatly diminished. This, Sabo Bako<sup>41</sup> attributed to poor level of investment in University Education in Nigeria. Research and development has become the most enduring and effective means of boosting sustainable economic development and re-enforcing competitiveness in the face of rapid growth taking place between industries, countries and peoples in the world. The quantity and quality of university research in Nigeria has drastically fallen. Peter Okebukola<sup>42</sup> lists some of the factors responsible for this to include:

- Lack of research skills in the modern methods.
- Constraint of equipment for carrying out state-of-the-art research.
- Over-loaded teaching and administrative schedules which leave little time for research.
- Difficulty in accessing research funds.
- Diminishing scope of mentoring junior researchers by seasoned and senior researchers due to brain drain.

The government alone cannot effectively fund university education in the country. Every stakeholder in university education has a role to play in this direction.

<sup>38</sup> O. C. Nwana, *Aberrations in Nigerian Education Systems*, p. 35.

<sup>39</sup> A. I. Odebiyi, O. I. Aina, *Alternative Modes of Financing Higher Education in Nigeria and Implications for University Governance*, p. 18.

<sup>40</sup> A. I. Odebiyi, O. I. Aina, *Alternative Modes of Financing Higher Education in Nigeria and Implications for University Governance*, p. 18.

<sup>41</sup> S. Bako, *Universities, Research and Development in Nigeria*, p. 26.

<sup>42</sup> P. Okebukola, *Strategies for Stimulating Research and Development in Nigerian Universities*, p. 17-18.

## CONCLUSION

On the basis of the research findings, it is concluded that:

- The present level of investment in university education in Nigeria is low and cannot facilitate effective teaching and learning for sustainable national development.
- The level of investment in university education in Nigeria cannot facilitate qualitative research and development for sustainable national development.
- Stakeholders in education in the country are not investing sufficiently in university education to enhance sustainable national development.
- The quality of teaching and research in Nigerian universities is poor as a result of low level of investment in university education in the country.

## RECOMMENDATIONS

The recommendations that follow are made based on the research findings and conclusions drawn:

1. Every stakeholder in university education in the country should be involved in the funding of education at the university level. University funding should not be the responsibility of government alone.
2. The Nigerian Government should adopt a university funding system characterized by transparency, need and equity.
3. The Nigerian Government should ensure adequate allocation of financial resources to universities.
4. Authorities of individual universities should develop more internally controllable ways of funding such as: overheads from faculty services to community, or from post-graduation course fees.
5. Universities should be compelled and monitored to ensure that they maximize the income so generated on viable investments.
6. Non-Governmental Organizations should be encouraged to take active part in funding university education either directly or through infrastructural development.
7. Researchers in Nigerian Higher Educational Institutions should be guided appropriately. Necessary steps should be taken to improve on the quality of research in the institutions.
8. Research funding in universities should not be left for the government alone. Industries and other corporate bodies should rise to the challenge of funding research in these institutions.
9. Research grants to universities should not be diverted into other uses. It should prudently used for research purposes.
10. The government should formulate a policy ensuring that some percentage of the industry's profit is spent on research and development.



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## STRESZCZENIE

Poziom bezrobocia absolwentów uczelni oraz jakość absolwentów kończących nigeryjskie uniwersytety wymusiły konieczność zbadania adekwatności inwestowania w szkolnictwo wyższe w Nigerii. Z przeprowadzonych badań wynika, że wielkość inwestycji na tym poziomie szkolnictwa była bardzo niska. To nie jest korzystne dla zrównoważonego rozwoju kraju. Jak rekomendują autorki artykułu, rząd powinien zwiększyć finansowanie szkolnictwa wyższego w Nigerii, zachęcając jednocześnie partnerstwo publiczne-prywatne do podążania w tym kierunku poprzez stworzenie środowiska sprzyjającego inwestycjom na wyższym poziomie edukacji.