FUNDING OF ACADEMIC RESEARCH IN NIGERIAN UNIVERSITIES

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ABSTRACT

The level of significance of academic research in Nigerian universities has its origin in the main objectives of establishing these institutions. The first of these institutions, the University of Ibadan, which was established in 1948, had the main objective of producing

- ➢ Government support accounts for over 98% of research funding in Nigerian universities, no industry support and the rest of the funding which is less than 20% comes from foreign agencies.
- ➢ Research funding is inadequate and not regular.
- ➢ Whereas investments in R&D in many countries are as high as 6 t0 10% GDP, that of Nigeria is less than 1%.
- ➢ In no year did research funding exceed 0.03%.

Some suggestions that would help improve research funding for the universities are as follows:
- ➢ Government should emphasize research in policy
- ➢ Investment in research should be seen as a development strategy
- ➢ Collaborative links between universities and industries is inevitable
- ➢ Industry involvement in funding should be seen as corporate social responsibility.
- ➢ Government should channel all researches to universities, and encourage industries to do the same.

Introduction

In a world driven by competition in all spheres of life, and in more recent times by competition in advancement in technology, research has development implications for every nation. So also is the funding of research.

The funding of university-based research in Nigeria has a direct relationship with government allocating to these institutions as well as the place of the subject in policy. The average annual allocation to the Federal universities for recurrent expenditure is 0.4% of Gross-Domestic Product (GDP). Of this allocation 5% is to be used for research.

The place of academic research in policy is readily observable from the main objectives of setting up the universities in Nigeria. Research can be said to be non-existent in policy as the main thrust of setting up the universities is that of producing manpower. Beginning with the first of these institutions, the University of Ibadan, which was founded in 1948, the main objective was to produce manpower that would takeover administrative responsibilities from colonial masters. This was seen as the main educational needs of the colonies at that time. Arts and classics dominated the curriculum. Other universities established shortly after, followed the pattern of the premier university with additional disciplines which included science and engineering. Even when there are no more colonial administrators from whom to "take over", manpower demands have remained the main focus of newer universities.

At the moment, there are a total of 76 universities. Of this number 25 are made up of state owned and 25 are private universities, while 24 are run by the Federal Government. Nineteen of the Federal universities are conventional universities while seven are specialized. The specialty for four of these is technology while three are universities of Agriculture. Table 1 provides a picture of these universities.

Table 1: Nigerian Universities as at September, 2006

Nature of University	Funding and Organization			
	Federal Government	State Government	Private Body	Total
Conventional	19	18	24	61
Specialized-Science/Technology	4	7	1	12
Specialized-Agriculture	3	-	-	3
Total	26	25	25	76

The supervisory and coordinating agency set up by the Federal Government for the Universities is the National Universities Commission (NUC). The NUC serves all universities only as a regulatory body in terms of curriculum and program approval. For the Federal universities, the NUC is also the channel through which funds are obtained from the national purse.

Adequate funding of universities and more issues such as autonomy have continued to dominate regular negotiations between the Academic Staff Union of Universities (ASUU) and the Federal Government (ASUU 2005 and 2001). It was during one of such numerous negotiations that an Educational Tax Fund (ETF) was set up in 1993. ETF is a

2.0% pre-tax levy on all companies in Nigeria, both private and public owned and is meant to augment the allocation to education on the national budget annually. The portion of ETF that should go to the universities is 50% which is expected to be spent on a number of areas including research. However, thus far the only visible application of this fund in universities has been on capital projects. Funding of universities generally, and research in particular is inadequate. This condition accounts for part of the reasons why giant strides in research have not been recorded from the research efforts of the universities. As noted by Musa (1988) the bulk of university researches are driven by demand for publications toward career advancement.

Research Questions: This study is aimed at proffering answers to the following questions:
- What are the responsibilities of the university as a higher institution
- What are the sources of funding research in Nigerian universities?
- What is the extent of funding available for research in Nigerian Universities?
- How dependable are sources research funding?
- How do universities cope with shortfalls if any in research funding?
- What is the demand for university research?
- How does the experience of other nations compare with that of Nigeria in the subject of research funding?
- What additional sources of funding can the nation tap from in order to boost funds for research?

2.1 Context and Issues: Factors Affecting Academic Research in Nigerian Universities

Dependence on other nations for goods and services, whether physical goods or technological and scientific knowledge has a much more far reaching effect than can be imagined. In a world driven by competition particularly in science and technology. Nigeria has remained a consuming society and sellers market where everything can be disposed off. If adequate research is carried out, the nation would be able to develop products and methods of production which would reduce dependence on importation of manufactured goods. The dependence on other nations for finished products has grave consequences for Nigeria. Ibhadode (2006) asserted that inspite of abundant human and material resources in Nigeria, there is "palatable" poverty in the land, but upheld that this can be translated to prosperity through manufacturing. Indicators of poverty in Nigeria, he noted are massive unemployment, bad roads, epileptic electric power supply, scarce potable water, poor educational facilities, prevalent dependence on used/obsolete items such as motor vehicles, clothes and aircrafts. Manufacturing is a means of deriving man-made wealth, which is sustainable (Ibhadode 2006, 3). Countries that are advanced in science and technology are able to create wealth through manufacturing. As exposed by Kumuyi and Igwe (1989), inspite of numerous claims of inventions and breakthroughs, Nigeria has not made giant strides in new products and processes. This situation has still not changed in 2006.

A nation which depends on other nation's advancement in science and technology either lacks the capacity for research and/or has not given it the proper place in policy measures. Research capacity is defined by UNESCO (2006) as the "aggregate of human, institutional and financial conditions for pursuing research." In either condition funding would be a critical factor. In the first instance if funds are available, where other

capacity factors such as human resources do not exist, competent researchers can be sought from the international scene. On the other hand, if government does not give research a proper place in policy adequate fund will not be committed to this course. The institutions may not be able to source for funds elsewhere whether locally or internationally without government support.

Nigeria is not acclaimed for world-class research because the universities which should be centers of research and knowledge creation are handicapped and, therefore have not been able to tap into potential areas of research. There are issues that constitute problems at the moment, some of which have become subject of on going national reforms by President Obasanjo's administration. These include alternative sources of energy, boosting non-oil sector revenue, efficient tax system, efficient pension scheme, forensic accounting, corporate governance, corporate social responsibility, medicine, health issues, and environmental issues.

A host of factors militate against academic research by Nigerian universities. Besides the failure to recognize it as a matter of policy, the underlisted provide a summary of reasons for poor performance of Nigerian universities in the area of research.

> Underfunding of universities generally with inadequate budget provision for research in particular.
> Inadequate facilities – poor equipment, poor libraries etc as a result of underfunding.
> Scarcity of research minded fellows, given the thin dispersal of persons with research training.
> Heavy teaching workload as a result of large class sizes. This keeps lecturers busy, even between semesters as marking of large number of scripts runs into another semester and sometimes another session because of short breaks.
> The culture of the society emphasizes wealth and not contribution to knowledge. As a result people chase promotion to professorship and once accomplished, many look for greener pastures.
> Remuneration system for the university is defective, with a uniform salary for all professors. This leads to poor reward for those in areas most sought after.
> The brain drain due to reasons cited above and other reasons further depletes the lean cream of the crop of capable research fellows. A number of scholars move to countries where their worth is better remunerated, and acknowledged. This further compounds the problem of work load for those on ground.
> The existing universities are few when compared to the nations population. There is pressure on the few universities to produce manpower to meet the demand for the teaming population.
> In such a condition it is obvious that the immediate need of society is to award degrees to those who will fit into the job market.
> Disproportionate amount of time spent on industrial relations through negotiation with different unions over remunerations. There are also negotiations with students' union.
> Constant disruption of university calendar as a result of closures resulting from industrial actions by unions and students' unrest. Consequently, the ample time usually available for research during long vacations has not been maintained for more than a decade.

6

- ➢ A consuming society not only of finished product but of knowledge supplied from outside.
- ➢ Lack of university industry linkages.

Government is not insensitive to the problems of universities. It is to check some of the excesses that the NUC carries out accreditation visits to these institutions to find out what programs have adequate resources in terms of human, structural facilities etc to be able to continue. Ironically however, after these visits, and problems have been identified, they remain unsolved because funding which is the major factor does not improve significantly.

2.2   Context and Issue: Concept and Related Literature

University research is the "original investigation undertaken to acquire new knowledge in the natural sciences, social sciences and humanities" (Millar and Senker, 2000, vi). In order to cope with global competitiveness acquisition of new knowledge through research is almost inevitable as the advancement of an economy is directly linked to the performance of its industries. This performance is a function of advancement in science and technology which cannot be achieved without some research. Anything short of this would lead to dependence on other nations' scientific and technological knowledge.

A critical factor for acquiring knowledge through research as already noted is research capacity, specifically in this context funding. If other capacity factors such as human resources and institutional facilities are available without financial support research cannot take off. Funding support is thus like the propeller for research as it is with many undertakings.

There is no available evidence of studies on research funding for Nigerian universities. There is however evidence of chains of demands by ASUU for improved funding of universities generally and research specifically. These are provided under current government policy on funding. Extracts from studies reported by Millar and Senker (2000) on research funding for different countries are provided here as a model for this discussion.

From this study on different nations, evidence shows that in many countries, over 50% of research funding comes from industry. Countries like Belgium, Germany, Ireland, Sweden, Switzerland and the U.S.A. recorded industry funding of over 60%, while Korea and Japan showed industry funding of over 70%. Average spending on research and development in OECD (Organization for European Economic Co-operation) countries is currently eight percent (8%) GDP (OECD, 1999 in Millar & Senker, 2000). France has a higher percentage of 9-10% and Japan slightly lower figure of 6-7%. In these countries the aim is to attain world class excellence in university research and providing sufficient funding for this purpose is paramount for the governments. It is to this end that these governments are poised to modify their involvement for university research (Geuna, 1999 in Millar & Senker, 2000).

The funding patterns observed in the countries were both dual and mixed support systems. Dual support system is one in which allocation of central university founding and research funding is executed by separate bodies. Germany, Japan, U.K. and U.S.A. use the dual support system while France have a mixed support system in which the

central university funds also covers funding for research of between twenty-five and fifty percent (25 and 50%) of total amount.

Each of the funding patterns have their benefits and short-comings. The dual support system in the four countries has been quite successful. Its main advantages are that
- Universities get a certain level of support coupled with independence to partake in basic researches not funded by project-specific grants.
- It makes room for targeting resources to specific aspect of the research system.
- It leads to increase in competitive research funds.

The pitfalls are as follows
- It leads to a decline in central funding.
- It can result in inadequate allocation for the indirect overhead costs of basic research projects.
- It can destabilize the research environment and decrease achievements in research.

In the mixed support system which obtains in France, there are complexities. There is no particular council for funding research projects and as such university researchers raise funds from a number of sources locally and internationally. These activities support basic research but not world-class research. However world class research is achieved by **mixed units** made up of university researchers and those of any of the two public research organizations i.e. Central National de Recherche Scientifique (CNRS) and Institut National de la Santé et de la Recherche Médicale (INSERM). CNRS operate under the Ministry of National Education, Research and Technology (MNERT) while INSERM operates under MNERT and the Ministry of Health. The mixed units though set up in many universities, are only applicable to one or a few disciplines. Only forty percent (40%) of the funding for these units came from central or core funds while the remainder comes from European Community (EC), national programs, industry, the regions and foundations. It is this numerous sources of funding that gives stability to the system and encourage world class research. With 'stamp of approval' provided by CNRS on proposals and the core funds provided, the mixed units derive acceptability from external funding bodies.

The benefits of the mixed units are as follows:
- Interactions between CNRS researchers and university staff have proved beneficial to research.
- Researchers have job security, adequate financial resources to undertake research, and freedom to choose where they work and the type of work they wish to do.
- Researchers are provided with good working conditions, and they have a high status allowing the recruitment and retention of the best researchers at relatively reasonable salaries.

The shortcomings of the mixed units are as follows:
- University teachers/researcher not associated to CNRS 'mixed' units are required to undertake a lot of short term contracts that do not help promote world class research.
- There are few opportunities or incentives for university or CNRS teachers/researchers to change their organizational affiliations. Nor is there any way for CNRS researchers who fail to realize their potential to be redirected to civil service positions more suited to their capabilities. (Millar and Senker 2000).

3.   **Government Policy And Research Funding In Nigeria**

3.1   **Current Policy**: There are no specific pronouncements governing research in Nigerian universities though about 99% of funding comes from government. There are no research councils that fund research projects in Nigeria. There are however research institutes set up by government for specific research areas, for example there are the Nigerian Institute for Social and Economic Research (NISER), Nigerian Institute for Rubber Research (NIRR) and Nigerian Institute for Oil Palm Research (NIFOR). As their names go, these institutes have specific research focus and have their team of researchers.

3.2 **Funding Pattern**: University research in Nigeria is funded mainly from government purse with no industry support. In a few cases funds have been obtained from foreign agencies. On the whole funding from government is almost a 100% as the foreign support is not enjoyed by all universities and in the few cases where they are obtained, it is not a regular annual event. Research funding by government is less than one percent of GDP.

The total amount expended on research annually is approximately an average of 0.02% of Gross Domestic Product (GDP). The sum is made up of 98.81% government funding, 0% industry and 1.19% foreign agencies. The amount of research (funding by government is a function of the total funding for recurrent expenditure in the universities which on the average represents 0.38% of GDP). Research funding is part of the recurrent expenditure as noted earlier.

Government funds for the federal universities are channeled through the National Universities Commission (NUC) to the 24 Federal Universities. These universities are expected to spend 5% of total allocation for recurrent expenditure on research. Table 2 provides a summary of funding as a percentage of GDP for fifteen years.

The pattern of funding in Nigeria can be described as a mixed support system as practiced in France.

> Some reports of the Central Bank of Nigeria (CBN) served as the source of GDP required for the analysis
> A visit was made to the Ministry of Finance to find out what tax incentives are available for industries that spend on R&D. The visit however yielded no result as the officer in charge was not available.

The analytical approaches adopted were descriptive and simple percentages. Most responses from the universities were amenable only to descriptive analysis as the questions were not followed by structured answers. Respondents were at liberty to describe conditions on ground.

The recurrent expenditure for 15 years (1990-2004) from which we obtained 5% for research coupled with other sources of research funding for individual universities were weighed against the GDP for the same period at current factor costs (See Table 2).

Table 2: Research Funding in Nigerian Universities

Year	% Source of Funding			
	% GDP	Gov't	Industry	Foreign Agency
1990	0.01	100.00	-	-
1991	0.01	100.00	-	-
1992	0.02	100.00	-	-
1993	0.02	100.00	-	-
1994	0.02	100.00	-	-
1995	0.01	100.00	-	-
1996	0.01	100.00	-	-
1997	0.01	100.00	-	-
1998	0.01	100.00	-	-
1999	0.02	100.00	-	-
2000	0.3	100.00	-	-
2001	0.3	94.50	-	5.50
2002	0.3	87.84	-	12.16
2003	0.3	99.91	-	0.09
2004	0.3	99.93	-	0.07
Average	%	98.81		1.19

Source: Compiled from NUC report and Central Bank of Nigeria (CBN) and individual universities.

4.2 **Summary of Findings**: The research findings are as follows:
> Responsibilities of a university as ranked by all those in the sample are
>> 1st - Producing manpower
>> 2nd - Research
>> 3rd - Community service
> Funding university research in Nigeria is done by the Federal Government (98.81%) and Foreign Agencies (1.19%).
> Funding of university research is inadequate.
> Sources of research funding are not regular and therefore not dependable

➤ Shortfalls in research funding results in researches not being completed in some cases. In other cases, research proposals are scaled down.
➤ No collaborative research between university and industry, instead major companies use foreign consultants. Government also use foreign consulting firms.
➤ With funding of less than 1% GDP, Nigeria is well behind many nations in its provision for research. Current provisions for R&D in nations like France, Germany, UK, U.S.A. Japan and Korea ranges from 6 to 10%.
➤ Apart from being inhibited by funding, work load of university teachers is excessive to allow time for meaningful research.
➤ Alternative source of research funding that is yet to be explored is industry.

The funding pattern for research is summarized in table 2 which shows funding of research as a percentage of GDP, and the population of funding from various bodies.

5.   **Conclusion and Recommendations**

The source of funding university research in Nigeria is mainly public funds. The funds for research are inadequate because a major source of funding such as industry, has not been exploited. Besides funding, other issues such as creating enabling environment and time for research have to be addressed.

5.1 **Future Policy**: The following recommendations are being proffered as possible solutions to the problem:
➤ Government should emphasize research in educational policy.
➤ Investment in research should be viewed as a development issue and not just academic exercise.
➤ Government should encourage industries to give researches and consulting jobs to universities and to support university research.
➤ Government should channel all researches and major consulting jobs to universities.
➤ The NUC should elicit from each university their capabilities in research.
➤ Areas of major capabilities identified for each university should be ascribed to same and advertised by NUC.
➤ Research needs of industries should be identified and made the subject of research focus in universities.
➤ Collaborative links should be established between industries and universities for research.
➤ Collaborative researches should command tax incentive such as allow full or substantial deduction for tax purpose.
➤ A certain portion of the Educational Tax Fund (ETF) should be set aside

5.2 **Plans for Action**: The suggestions proffered above would not implement themselves. Government needs to set some plans in place to execute them. The following suggestions are made:

> Government should issue policy statements that would be served on all universities and companies.
>
> Each university should be requested to provide a list and supporting evidence of its capabilities within a certain date.
>
> Each company is to provide a list of their research needs within a certain date.
>
> With the above two measures a collaborative link should be established between industry and universities.

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