

## Challenges of Entrepreneur University in Nigeria

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### Abstract

*All indices within the Nigerian university system clearly indicate that all is not well with the system. The glaring evidence of dysfunction within the system is the complaints from employers of labour on the quality of graduates from these universities. This scenario is worrisome when viewed against the background that Nigeria once served as the hub of university education in the West African sub-region. The paper observed that absolute dependence of Nigerian public universities on government grants appears to have scuttled their initiatives on how to broaden their revenue base. This paper identified historical origin, rigid management structure, disconnect from employers of labour and inadequate curriculum innovation as some of the fundamental challenges confronting these universities. The paper then recommended a paradigm shift from existing predominantly traditional universities to entrepreneur universities. Through this approach, universities will be involved in profitable businesses activities, expose their undergraduates to entrepreneurship programmes to make them job creators instead of job seekers on graduation as well as forge business relationship with the productive sector for profitable ventures.*

**Keywords:** Nigerian University System, Public Universities, Revenue Base, Traditional Universities, Entrepreneur Universities, Entrepreneurship Programmes.

### Introduction

Nigerian universities are presently facing serious challenges as the prevailing situation seems to indicate that all is not well with the system. The glaring evidence of possible rot in the universities includes the complaints from the labour market on the quality of graduates who have to be exposed to another period of in-house training by their employers to make up for the deficiency in their skills. There have also been reports on denial of Nigerian graduates into direct admission for postgraduate degree courses in foreign universities due to their reservation about the quality of university education in Nigeria. The scenario appears worrisome when viewed against the background that Nigeria once served as the hub of university education in the West Africa sub-region. The World Bank (1998) observed that more than any other countries in sub-Saharan Africa, the structures exist in Nigeria that could provide for a national and effective development of university education. This concern for decline in quality was emphasised by Babalola (2001) when he reported that universities in Nigeria are currently in crisis.

Funding has continued to dominate discussions on issues pertaining to quality of education. Combs (1968) indicated that money is an absolute crucial input of any educational system as it provides the essential purchasing power with which education acquires its human and material input. With too little money, education can be helpless. With an ample supply, its problems become more manageable even though they do not vanish. In the same vein, Onushkin (1973) reported

that in a survey conducted by the International Institute of Educational Planning of the UNESCO (IIEP), it was revealed that universities the world over were found to consider finance as a major obstacle to their development and that most of them were not satisfied with the rate of increase of their finances.

It is observed that public universities in Nigeria are dependent on government for funding and the decline in budgetary allocation due to moribund economy has impacted negatively on the universities. The scope of this presentation is limited to public universities in Nigeria since public and private universities have certain peculiarities. It is against this background that this paper is written with the aim of answering the following questions:

1. What are the consequences of history on the nature of universities in Nigeria?
2. Do the universities have the capacity for change?
3. What are the constraints to transformation of Nigerian universities?
4. Are there lessons for Nigerian universities to learn from other universities around the world in their quest for survival?

### **Historical impact on the nature of Nigerian universities**

The antecedent of public universities in Nigeria makes absolute dependence on government inevitable. This is because from historical perspective, initiative for the establishment of universities in Nigeria came from the colonial administration albeit with persistent pressure from the nationalists. The Walter Elliot Commission of 1943 marked a watershed in the development of university education in Nigeria. This Commission recommended the establishment of the University College of Ibadan as an affiliate of University of London. Later on the Ashby Commission recommended the establishment of the University of Lagos, Ahmadu Bello University in Zaria and the upgrading of the University College of Ibadan into an autonomous University of Ibadan. The Eastern Regional Government established the University of Nigeria at Nsukka in 1960 while the Western Regional Government established the University of Ife (now Obafemi Awolowo University) in 1962 with the University of Benin coming on board at the end of 1970. However, by the end of 1975, the Federal Military Government took over the control of regional universities. Thus the number of Federal universities in Nigeria as at this period stood at six. These universities are referred to as first generation universities.

Seven additional universities established during the Third National Development Plan launched in 1975 constitute what is now regarded as the second-generation universities. The emergence of these universities according to Ukeje (1992) had political implication when viewed against the geographical spread that ensures that every one of the 21 states had a university, despite the justification for their existence by the Government. All these universities just like the first generation universities were conventional universities.

The Rivers State Government blazed the trail in the establishment of specialised universities with the establishment of Rivers State University of Science and Technology in 1979. The Federal Government also went ahead to establish additional universities of technology to coincide with the Fourth National Development Plan. Aminu (1986) described the seven Universities of Technology built as part of the strategy of one Federal University per state, as political if not realistic expressions of commitment to technological development and to maintain Federal Government supremacy in the industry. He added that the project was over ambitious if not misconceived. On the state universities, Aminu (1986) described them as geographical creations to give expression to the constitutional right of state governments to establish and run their own universities, after a period of undeserved Federal monopoly, and to offset measures

taken federally to correct the national geographical educational imbalance. University development has therefore been the creation of money, politics and geopolitics, rather than following the National Policy or even a national policy.

In Nigeria, public universities never charge economic fees to their students and therefore depend heavily on Government subsidy for the sustenance of students' services. Saint, Hartnett and Strassner (2003) observed that government's policy with regard to tuition charges has been cautious and carefully conditioned. This is because cost – sharing with students remains highly contentious within the country's fragile democratic environment. For this reason, government has stated that while students' charges remain a legitimate source of revenue for universities in an environment in which they enjoy autonomy, government policy for the time being is that before fees can be re-introduced or charges can be raised, the students and their sponsors must be economically empowered to pay such fees and charges. This empowerment entails an improvement in the take – home pay of workers as well as adequate scholarships and students' loan schemes.

The discussion so far indicates that government wields tremendous influence on Nigerian universities to such an extent that autonomy is now a contentious issue. Virtually every segments of the university system come under the influence of the governments. This regulatory role on public universities appears to have stifled their initiative at taking pro- active decisions that could facilitate sustainable development. For instance, admission into Nigerian universities is controlled by the Joint Admissions and Matriculation Board which is an agency of the Federal government. In addition, the National Universities Commission has been accused of usurping the functions of the Senate in the universities and also deviating from its original function at inception, which was to source for fund and ensure its equitable distribution among the universities.

Available data indicate that 98% of the personnel expenses in the Federal universities were paid through grants by the Federal government, (Appendix I). Recent attempts to address the problem of underfunding suffered a serious setback. Anao (2002) remarked that some sections of the Universities Autonomous Bill before the National Assembly explicitly outlaw the charging of fees and that outlawing of fees would be tantamount to binding a person's hands and legs and asking him to run, the consequences will be catastrophic. NUC (2005) indicated that with the dwindling funds for running cost, universities turn to the sub-degree and part-time programmes for financial augmentation and the number admitted into such "back-door" programmes doubles "regular" admission. Thus inadequacy of physical facilities is the root cause of overcrowding which is a product of the desire of university administrators to improve on their internally generated revenue.

The foregoing indicates that most of the challenges facing Nigerian public universities have their roots in their dependency syndrome based on their historical birth, a development that has scuttled their initiatives at creating and managing wealth. This is because it is often taken for granted that the financial support will always come from government. In addition, most universities appear to limit their ability to generate funds to tuition and other fees without exploring fully other profitable means for their survival. There is also the problem of relevance of the academic programmes that are tilted towards humanities and allied courses instead of engineering and science courses that are crucial to the technological advancement of the nation. NUC (2005) noted that Nigerians are dissatisfied with the output from the universities based on the 2004 needs assessment study in the labour market expectations of graduates from Nigerian universities. Many find detestable the army of unemployed graduates roaming the streets. To many Nigerians, a critical mass of highly skilled graduates to drive the National Economic

Empowerment and Development Strategy (NEEDS) is more relevant than a large number of half-baked graduates who will be more of a burden than succor to the economy.

### **Do the universities have the capacity for change?**

This question is better answered by examining the National Policy on Education (2004). A cursory look at this document indicates that within the context of a developing nation like Nigeria, it is comprehensive enough to make university education responsive to the needs of the nation. However, what obtains in the country today is at variance with what is expressly stated in this document. Let us examine the issue of research. Bako (2005) observed that at the moment, over 99.5%, if not all 100% of the Nigerian universities' energy and time are devoted to teaching and assessing of students throughout the year, without official time designated for doing research. In addition, the whole 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. In the same vein, Okon (2006) indicated that research work, the main plank of tertiary education's knowledge generation has been roundly pilloried for being far below expectation, in quantum and novelty. This is not surprising given that since 1999 (till 2004); there has not been any research grant allocation to any of the federal universities thus leading to a lull in research in the universities. The situation in state universities cannot be better when viewed against the background that states depend on the Federal government subvention for survival. However, revelation at the Nigeria Universities Research and Development Fair organised in 2004 indicates that given the right environment, talents abound in the universities for technological innovations. It is regrettable that none of the scientific discoveries at the Fair has translated into patents for industrial application and expansion of production. (Appendix II).

On the stipulated admission ratio of 60:40 in favour of science and technology-based disciplines, admission into Nigerian universities is still positively skewed in favour of humanities and management sciences while the so called universities of technology also operate programmes that are outside their mandate for their economic survival. These indicate that even though the structure to bring about transformation in Nigerian universities is there, approach to management in these universities as well as the political will to bring about these changes appear to be lacking.

Based on the existing management structure of Nigerian universities they can be described as *bureaucratic universities*, *conservative universities* or *traditional universities*. This is because of their rigid nature in terms of structure that is patterned after the British as well as the curricula which to a large extent bear no relevance to their social environment. This is in addition to their elitist nature and aloofness from their environment. For example, Aminu (1986) observed that "the universities belong to the Nation cannot be gainsaid, but, they need to appear so to belong". This would then obviate the impression which once compelled an eminent Nigerian to remark in 1971 that our universities were a mere cultural transplant whose roots lie elsewhere and appear to belong to us in name. That this remark appears justifiable can be seen by a glance at the stereotyped laws of our various universities and observing the remarkable similarity of their essence with those of the higher institutions of learning of the western world, with which they were long associated.

Bako (2005) observed that Nigerian universities have tended to concentrate on manpower production almost at the total neglect or even abandonment of advancing appropriate research and knowledge, with some disastrous consequences for the development of the universities, national economy, polity and society. Citing Ashby (1960) he added that unlike American universities that were built on continuity, conservation, expansion and transmission of knowledge for societal

progression, the Nigerian universities, on the other hand, in spite of what could be written as their mission statements, were essentially crafted for two main purposes: i) First to produce manpower that would serve as instruments of political changes particularly in the transition from colonialism and neo-colonialism, and ii) for the universities to serve as conduit for social changes especially in the formation of modernizing elite for the society. Thus the orientation of graduates from Nigerian universities has always been towards white collar jobs and not that of job creation.

The absolute dependence by Nigerian universities on virtually everything appears to have killed their initiatives at creating and managing wealth. Abdulkadir (1987) observed that the most obvious accountability coming from the Nigerian universities annually are the convocation ceremonies, which tell the nation what returns it is getting from its investments in the university system without taking cognizance of whether such report has any leaning to proper management on the campus. This is because it is often taken for granted that the financial support will always come from the government, a development that breeds mismanagement.

This dependency syndrome has insulated Nigerian universities from their environment particularly the organised private sector that constitutes their primary consumers. Thus the inability of these universities to take advantage of the inherent opportunities in collaborative efforts with the productive sectors of the economy has not only denied them access to the financial benefits that accrue from such relationship; in addition it starves the universities of adequate information to guide them on the production of graduates that will meet labour market requirements. The consequences have been that the support from the productive sector of the economy is not properly coordinated and at best a public relations gimmick, while problems of graduates' unemployment remains unabated.

### **Constraints to transformation of Nigerian universities**

The World Bank (2002) observed that new realities facing higher education mean that many traditional ways of running higher education systems are becoming irrelevant. A laissez-faire approach which assumes that all components of the higher education will fix together and serve everyone's needs is untenable. System-wide coordination is clearly needed. But neither is centralized control the answer. Diversity is greatly needed, as are autonomy and competition between similar institutions. Saint, Hertnet and Strassner (2003) quoting El-Khawas (2001) distinguish between rigid institutions of higher learning and responsive institutions. A rigid institution resists making changes in institutional behaviour and often rejects possible changes without openly considering whether they are feasible or desirable. A responsive institution, on the other hand, is adaptive in its orientation. It intentionally considers changing circumstances, identifies appropriate ways to adapt, and takes responsive actions.

When this concept is applied to Nigerian universities, without mincing words, they automatically fall under the category of rigid institutions that are impervious to change and make changes impossible. Aminu (1986) observed that better quality and greater output are being expected from Nigerian universities in the context of limited resources. There must be a fresh approach to management. The administration of the universities needs considerable modification. These countries, on whose universities the present system is modeled, have long changed their own. Regardless of the undoubtedly special position of the universities as self-perpetuating centres pursuing academic excellence and cherishing academic freedom, the principles of their management are surely the same as those governing management elsewhere. Management aims at making a system to work, work efficiently and to grow. In the same vein, in a communiqué issued at the end of the Third Biennial Seminar of the National Association of Pro Chancellors of

Nigerian Universities in 2007, it was stated that sufficient attention has not been paid to universal best practices in higher education management in Nigeria. While some attention has been paid to resource mobilisation, the same cannot be said of efficient management of resources.

While all the stakeholders have been expressing concern about the decline in the universities, attempts to solve the hydra-headed problems confronting these universities have not yielded fruitful results. On why this is so, Saint et al (2003) appear to have provided the correct answer. According to them, a possible explanation is that an institution's incapacity to respond to change is the outcome of limits on government funding capability combined with rigid internal organisational structures. These conditions seem to prevail in Nigeria. Funding dependence is obvious while organisational and procedural rigidities are the order of the day. All these attributes constitute the bane of Nigerian universities.

### **Framework for transformation of Nigerian universities**

While the academic community in Nigeria often associates decline in quality of university education to underfunding as well as loss of autonomy and academic freedom, the inability of the universities to harness their resources towards productive ventures, production of graduates that do not meet the need of the labour market, certification of graduates that are job seekers instead of job creators as well as aloofness from the productive sector are other problems that require urgent attention from the universities. The awareness that rapid industrialization and economic development are heavily dependent on the development of manpower capable of creating and providing opportunities for business ventures has increasingly brought entrepreneurship to the attention of nations in the world. More often than not, entrepreneurship is seen as an exclusive preserve of business but experience has shown that entrepreneurial ability is also an input in most non-business operations.

Clarke (1993) advocated the need for a change in the global perception of higher education system in his observation that:

For the first time, really international world of learning, highly competitive, is emerging. If you want to get into the orbit, you have to do so on merit. You cannot rely on politics or anything else. You have to give a good deal of autonomy to institutions for them to be dynamic and to move fast in international competition. You have to develop entrepreneurial leadership to go along with institutional autonomy.

This above statement implies the need for a change in status quo within the Nigerian university system. Bako (2005) advocated that in Nigeria there is need for a fundamental paradigmatic shift in the whole consciousness, policy, conduct and business of making research as the main and indispensable academic component and capital tools for economic and social development. He emphasised the need for the development of a research priority, agenda and strategic plan at the national level which all researchers must abide to and execute.

Clark (2005) observed few European universities and their transformation to a much more pro-active style. He noticed that there existed a collective phenomenon, an accumulation of entrepreneurship groups stretching from disciplinary departments and interdisciplinary research centre at the base, to the faculties and schools at intermediary levels, to the entire universities. He then associated the following attributes with what he referred to as Entrepreneur University:

- Diversifies income to the point where its financial portfolio is hardly dependent upon the whims of politicians and bureaucrats who occupy the state policy or upon business firms and their commercial influence, or upon student tuition as main support.
- Funds flow not only from such well-identified sources but also crucially from a host of public agencies (other than core support ministry or department) and alumni and other private donors who provide moral and political support as well as direct year-to-year funding and accumulation of endowment.
- Effective stewardship comes to depend not on the state or on “the market” but on university self-guidance and self-determination.

This global trend towards entrepreneurial university must have prompted the National Universities Commission to direct Nigerian universities to incorporate entrepreneurial studies into their academic programmes. However, it appears the universities themselves need to take decisive actions in order to get out of the woods. One thing is obvious, universities in Nigeria cannot be adequately funded and the government has made it abundantly clear through their actions. Fortunately, experience of universities in the USA and Britain is available for Nigerian universities to adapt; as any university that fails to embrace the concept of entrepreneurial university does so at its own peril.

Neville (1987) hinged the survival of British universities to survive unimpaired by cutting down a great deal of wastage. He added that there is scope of economies in activities which can be run in large grouping than individual departments. He observed further that university is a million naira operation and the vice chancellor should not be advising the Council nor “the first among equals” but a managing director. The Council should lay down the general policy but the vice chancellor is the manager. Neville cited examples from some countries like Germany and Norway where the managerial role is filled by a senior civil servant with direct access to the Ministry. In Holland, there is a full-time chairman of the Board with more power than the Rector and that Senate must loose its present position of having power without responsibility.

Ebner (1987) observed that in the USA there is no single system of higher education and the Federal Government does not exercise direct control over higher education and neither is there a Federal University System. Fund raising has become an integral part of university administration in the US. In order to achieve the attendant goals and objectives in an effective, efficacious and centralized manner, a separate university office is devoted to these fund raising activities. He added that sport is becoming a big business and many universities are taking advantage of this to boost their revenue base. Many large universities fund the entire physical education departmental programmes through the ticket sales and television rights granted by football and/ or basket ball teams.

The concept of Entrepreneur University when applied to universities in Nigeria could mean any or all of the following:

- The involvement of the universities in profitable businesses activities by using available resources at their disposal.
- Exposure of their undergraduates to entrepreneurship programmes that will make them job creators instead of job seekers on graduation.
- Meaningful cooperation and collaboration between the universities and the productive sector to forge close business relationship that will translate to profitable ventures between them.

It is observed that Nigerian universities are changing in their orientation towards Entrepreneur University as evident in their greater participation in commercial enterprises and productive sector linkages. The commercial ventures range from hotel services, running of primary and secondary schools, publishing, sales and marketing including petrol and supermarkets. The university productive sector linkages are those structures put in place to allow universities to sell their technical expertise and/or the products of their scholarly research to the productive sector. However, several lapses have been associated with these ventures. Aina (2007) describe the state of university productive sector (UPS) in Africa as follow:

- Universities are resistant to effect structural changes and they lack commitment to the establishment of effective UPS linkages.
- What exists is a weak or temporary linkage with industry namely on personal level (conferences, individual consultancies and student attachment).
- Existing university productive sector centres are weak and poorly funded with little or no autonomy.
- Insignificant government involvement (poor funding, poor enabling environment for commercialization of research and development results and unwillingness to use the “power of purse” to encourage the establishment of UPS linkages).
- Poor science culture and weak science and technology policies and institutions.
- Insignificant income to the university from consultancy and generally from the industry.

The same inadequacies are associated with various commercial ventures in most Nigerian universities as they are characterised by bureaucratic procedures that endanger quick decision making which form the basis of profitable business venture. Perhaps the feedback on the solution to unemployment problem in Nigeria culled from the internet underscores the imperative of Entrepreneur University in the Nigerian university system. An edited version of the feedback is stated below:

*If Nigerian graduates are unemployed isn't that telling you something that our educational system is not practical but theoretical, that our colleges are not making our students entrepreneurs, that you have students who can't even create a micro-electronic device and they call themselves "electrical engineers", that you have students who can't write a JAVA or C++ program talk less of developing their own software and they call themselves computer scientists. As far as I am concerned, if you have a college degree and you're not capable of starting your own business or branching out on your own, then your education is useless. Our college professors spend time giving our kids too much information from textbooks to cram but the students can't apply it to the real world, there is no research done in the universities whatsoever, the professors are busy passing handouts and sleeping with students. Let me put this pomp and plainly, if you're an architect and you can't start your own business after college then your degree is worthless, my roommates here use big time software programs for architecture design meanwhile those in UNILAG are still using T-square and compass, the same goes for civil engineering. This shows that we urgently need to overhaul our university educational system. College kids here are given projects to come up with something new or to design something in their senior class.*

The foregoing indicates an urgent need for paradigm shift in the Nigerian university system if these universities are to remain relevant in this era of globalisation. This is perhaps why Rokpe (1998) observes that only a one letter difference exists between a non- entrepreneurial university and entrepreneurial university, the movement from block- University to bloc- University, that is, the mutation of the traditional research and teaching university into entrepreneurial university.

### **Conclusion and recommendations**

This paper identifies the history of universities in Nigeria as the basic underlying factor responsible for the various problems bedeviling the system. The absolute dependence on government subvention on regular basis has stifled the initiatives of these universities at making money. The rigid management structure and the aloofness of these universities from the productive sector of the economy have also denied them of the supportive role from the productive sector. In addition, their inability to tailor their academic programmes to meet the manpower requirements in the productive sector is partly responsible for the unemployment problems among Nigerian undergraduates. Therefore, besides lack of support from the productive sector, adequate support is not likely from their graduates who are handicapped both intellectually- in terms of acquisition of productive skills and economically- due to unemployment. It is in the light of this that Nigerian universities are advised to be innovative and responsive to changes in their environment. One of the easiest ways out of the current economic quagmire is to embrace the concept of Entrepreneur University. Based on the position of this paper, the following recommendations are made:

1. The management of the various universities in Nigeria must engage in self-appraisal in order to reduce wastage in the system.
2. Various universities must identify their areas of strength and capitalize on this so as to improve their revenue base.
3. Establishment of town and gown relationship that will ultimately metamorphose into a core-research and scientific community.
4. Regular review of the university curricula with inputs from the productive sector.
5. Improved autonomy and academic freedom in the universities must be put in place.
6. Emphasis must be on establishment of ICT based specialised universities to cope with the challenges of globalisation.

### **Reference**

- Abdulkadir, L.A (1992): "Higher Education in Nigeria: Issues and Prospects": In Ipaye B. (Ed.), *Education in Nigeria, Past, Present and Future*, Lagos: Macmillan Nigeria Publisher Limited.
- Aina, O.I (2007): "Alternative Modes of Financing Higher Education in Nigeria and Implications for University Governance": In Babalola, J.B and Emunemu, B.O (eds.) *Issues in Higher Education: Research Evidence from Sub-Saharan Africa*, Revised Edition, Lagos: Bolabay Publications.
- Aminu, J. (1986): *Quality and Stress in Nigerian Education*, Zaria: Northern Nigerian Publishing Company.
- Anao, A. (2002): Interview with *The Guardian*, Tuesday, September 3.

- Babalola, J.B. (2001): "University Funding, Responses and Performance under a Declining Economy in Nigeria", Educational Planning and Policy Unit, Department of Educational Management, University of Ibadan, *Research and Seminar Series*.
- Bako, S. (2005): Universities, research and development in Nigeria: Time for paradigmatic shift. Paper prepared for the 11<sup>th</sup> General Assembly of CODESTRIA on Rethinking African Development; Beyond Impasse; towards alternatives, Maputo, Mozambique, December 6-8.
- Clark, B.R (2005): "The Character of Entrepreneurial University", The Boston College Centre for International Higher Education, *International Higher Education*, Number 38, Winter. Pp 1-2
- Clarke, B. (2001): The entrepreneurial university: New foundations for collegiality, autonomy and achievement. *Higher Education Management*, 13(2), 9-24
- Combs, P. (1968): The world educational crises: A system analysis, New York: Oxford University Press.
- Ebner, G. (1987): University fund raising: The U.S experience. In: Resources Management in the University System, Zaria: Proceedings of the NUC/CVC/BC International Seminar. November 9-11.
- El Khawas E: DePietro-Jurand, R and Holm-Nielsen, L. (1998): Quality assurance in higher education: Recent progress, challenges ahead. Paper presented at the UNESCO World Conference on Higher Education held in Paris. October 5-9.
- El-Khawas, E (2001): Today's universities: response, resilient or rigid? *Higher Education Policy*, 14, pp 241-248.
- Federal Republic of Nigeria (2004): *The National Policy on Education, (Revised)* Lagos: Federal Government Press.
- National Association of Pro Chancellors of Nigerian Universities (2007): A communiqué issued at the end of the Third Biennial Seminar held at Trenchard Hall, University of Ibadan, November 19-22.
- Neville, A. (1987): Creating a more efficient machinery in resource management in the universities. In: Resources Management in the University System, Zaria: Proceedings of the NUC/CVC/BC International Seminar. November 9-11.
- NUC (2005): Accreditation status of undergraduate programmes in Nigerian universities *Monday Memo*, May, 4(20).
- NUC (2005): Curbing over enrolment in Nigerian universities, *Monday Memo*, September, 4(37).
- NUC (2005): Ranking Nigerian Universities, *NUC Monday Memo*, January, 4(3)
- Okon, J.E (2006): Historical development of educational administration: In Babalola, Ayeni, Adedeji, Suleiman and Arikewuyo (eds) *Education Management: Thoughts and Practice*: Ibadan, Codat Publications
- Onushkin, V.G (1973): Planning the development of universities, Paris: UNESCO, International Institute of Educational Planning.
- Rokpe, J. (1998): The entrepreneurial university: Innovation, academic knowledge creation and regional development in a globalise economy. Internet article.
- Saint, W; Harnett, T.A and Strassner, E. (2003): Higher Education in Nigeria: A status Report, *Higher Education Policy*, 259-281
- Ukeje, B.O. (1992) "Nigerian Education: Unity within Diversity, the old within the New". In: Ipaye B. (Ed.) *Education in Nigeria, Past, Present and Future*, Lagos: Macmillan Nigeria Publisher Limited.

- World Bank (1988): Nigeria: Costs and Financing of Universities. Report No 6920-UNI. Washington, D.C: The World Bank, 90 pages.
- World Bank (2002): Higher Education in Developing Countries: Peril and Promise, Washington, D.C: The World Bank.

**APPENDIX I****Sources of funds for university financing in Nigeria**

Expenditure	Source	Percentage
Personnel	Government	98
	Other sources	2
Overhead	Government Grant	45
	Income from user	49
	Income from investment	6
Capital	Government Grant(NUC)	68
	Government Grant(ETF)	12
	Private sector support	10
	Income from other investment	4
	Others	6

Source: National Universities Commission (NUC), 2002

**APPENDIX II****Projects on display at the First Nigerian University Research and Development Fair**

Name of institution	Project on display	Significance
Federal University of Technology, Owerri	Digital signature tune to authenticate the source of GSM short messages Conversion of cassava starch to cassava fruit drink Using waste from cassava to make wine	To authenticate the source of GSM short messages
Olabisi Onabanjo University, Ago Iwoye	Developed a multiple developed a multiple exerciser used for laguna game	
Cross River State University	Manual water pump	
Adekunle Ajasin University	Grounded okro as substitute for coffee	
University of Benin	Agricultural waste products such as sugar cane fibres, groundnut shell, rice husk and maize cobs were converted to sickle cell herbs and other pharmaceutical products.	
University of Jos	Genetic modified yeast for commercial wine production, anti-snake vaccine and baby food. Discovery of family planning pill that can prevent pregnancy for a year.	

	Immunity booster for HIV/AIDS patients	
University of Lagos	Interlocking blocks capable of reducing cost of building by 30%	
Federal University of Technology, Akure	A machine that could peel cassava and grate 15-20 tons of garri per day A machine that could remove essential oil from oranges	
University of Nigeria, Nsukka	Aired a life programme from its Lion FM organisation a radio station that can cover 10km radius. Cost of installation is as small as N500, 000:00 at least three times cheaper than imported equivalent. Solar energy egg incubator Module for thermal pest control. Solar water heating system	
University of Ilorin	Orange peeling machine Wine from cassava Refractory bricks from local clay Use water sachet for candle Device for oil spillage absorption	
Ladoke Akintola University of Technology	Presented a prototype of a computer controlled aircraft that can be used as a security surveillance/militaryintelligence spy and as an alternative means of controlling the aircraft if the pilot loses control. Handmade computerized bioreactor	
Bowen University	Used solar energy to power all its appliances during the fair.	

