

GENERATING INFORMATION FOR ACADEMIC PLANNING IN NIGERIAN UNIVERSITIES

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Abstract

This investigation looked at the generation of information for academic planning purposes in universities in Nigeria, especially first and second generation universities. The paper reviewed literature extensively on the meaning of information and came up to examine whether the information generated in Nigerian universities were adequate. The investigation adopted the survey research design drawing its population from the Directors of Academic Planning and Information Technology, academic staff and students in seven out of the thirteen universities that constitute first and second generation universities in Nigeria. A total of 7,160 respondents were interviewed for the project. Two research questions and two hypotheses were raised. The T – tests was used to test hypothesis one at 0.05 level of significance and tested significant that information generation varied between first and second generation universities in Nigeria. ANOVA was used to test the relative contribution of each university to information generation that also tested significant at $P < 0.05$. A Post Hoc Analysis was carried out to test the relative contribution of each university. The study observed that factors accounting for variation in the levels of information generation included age of university, social and environmental insecurity making the attraction of high level technical personal difficult, poor information infrastructure and poor funding. The study recommended the adoption of university friendly policies to ameliorate the problems.

Introduction

The role of universities in national development is just being realised in the third world particularly Sub-Sahara African countries. Development in African countries is characterized with several low human welfare indices, for example, low national income, mass poverty, low literacy levels, high infant and maternal mortalities, high incidence of poverty, low school enrolment rates, constant inter tribal and inter ethnic conflicts, poor social infrastructure, high level of social and political insecurity, poor communications, etc. (World Development Report, 2007 and Federal Republic of Nigeria, 2004).

Prior to this time, African nations were not too prone to investment in higher education due to the advice of the classical Human Capitalist Theorist. The early human capital theorist advocated that investment in university education was much more of a luxury (Aina, 2009). Their arguments hinged on the assumption that returns to primary and secondary education far outweighed returns to tertiary education (Psacharaopolous, 1973). Also, their postulation was in favour of high literacy rate which may not be achieved with investment in higher education that was more expensive and elitist in perception.

The realization of the role played by education in national development is not unconnected with the sudden economic emergence of the countries of East Asia commonly referred to as the Asian Tigers that transformed their economies and are now referred to as knowledge economies (Erwart, Isah and Fabunmi, 2009). The early human capital theorist though emphasized and encouraged investment in Primary and Secondary education, recent developments showed that countries need to invest heavily in higher education, especially universities. While investment in Higher Education has been agreed upon to raise national welfare and standard of living index, it is further evident that standards and quality must be enhanced in universities to bring into play the achievement of national goals and objectives. To achieve this, there must be planning. Planning involves the general re arrangements of input that will bring about optimum output. Questions that should be answered include: What determines university graduate output since what comes out is determined by what goes into the system? What determines to large extent the direction of university programmes and products is Academic Planning. Academic Planning

has been described in various ways by different scholars and institutions.

Soyibo (1983) described Academic Planning as the coordination of the university's manpower planning system, as well as the physical development of any university. According to Soyibo (1983), Academic Planning in universities is a process that involves meeting the requests made to the Academic Planning Unit for either Personnel or Physical Development. Katz and Khan (2006) described Academic Planning as the 'Heart and Soul' of the Universities. According to Katz and Khan (2006), academic planning is the well laid out procedure capable of improving the intricate protection of an individual, college or university. University of Toronto (2004) and University of Wisconsin (2007) agree that academic planning involves a charting of direction that takes a person, programme or institution from one level to another in a university environment. The foregoing seems to point to a fact that any institution or university where the course of action or direction seems unclear and where goals, targets and objectives are not realised, it means that the Academic Planning section of that institution is questionable. It must be clearly understood that all Nigerian universities have Academic Planning Units but the complaints in recent times from stakeholders decrying falling standards in university graduates seem to question the rationale behind academic planning in our universities. The foregoing statement simply implies that academic planning in our universities is far from societal expectations. Another question then is: Can we safely conclude that Academic Planning is adequate in our universities?.

According to Anderson (2004), Effectiveness in any endeavour is the extent to which that endeavour meets with its goals and objectives. For example, effectiveness in academic planning is the extent to which academic planning meets its targets in any university. The goals of academic planning in any university, according to Ojedele and Ilusanya (2006) and Soyibo (1983), include among others: to harmonise university goals with national goals, coordinate and evaluate requests made within the university in line with available resources on the basis of priorities, accepts, modifies or rejects requests by faculties and departments in view of resources available, monitor and evaluate progress and proposals in on - going projects in line with the long term and short term vision and mission statements of universities. The

Academic Planning Units (APU) performs the functions of budgeting, monitoring and evaluation of university projects on the basis of funds and resources available on the basis of prioritization. If the foregoing are the functions of APU in universities then complaints from stakeholders in recent years concerning Nigeria's educational system (universities) products are traceable to the APU of universities. This paper will find out the effectiveness of Academic Planning in universities using Nigerian universities.

Statement of Problem

In recent years, stakeholders have been complaining of falling standards in products of Nigeria's higher education institutions, especially universities. Specifically identified is the area of numeracy and expression. Several factors have been proposed as causal for this problem. It is observed too that most institutions of higher learning flout the guidelines on admission and other sundry issues giving rise to attendant consequences on quality and standards. This paper found out why institutions established by law flout laid down rules and policy guidelines. The paper premised its hold on the fact that it is probably due to inability of education managers in our universities to generate enough information that can assist in Academic Planning. The investigation therefore sought to find out how universities generate information for Academic Planning purposes.

The study has the general objective of unveiling the process of information generation in Nigerian universities by specifically finding out the perceptions of university community stakeholders on the level of information generation and the extent of their involvement in the generation process. The study intends to compare the levels of information generation in universities. The study is of significance to university administrators and planners both in and outside Nigeria. The study is of significance to university students and graduates who share the rare privilege of understanding the intricacies associated with academic planning thereby enabling them to find solutions to any deficiency identified in their education.

Research Questions

The following research questions have been formulated to guide this research:

1. What is information and what is information generation in universities?
2. What is the level of information generation in Nigerian universities?

Hypothesis

The following null hypothesis has been formulated to guide the study:

H₀₁: There is no significant difference in information generation between first and second generation universities in Nigeria.

H₀₂: There is no significant difference in information generation among Nigerian universities on account of Geopolitical zones

Methodology

The study adopted the survey research design to investigate the level of information generation in universities. The multi stage random sampling technique was adopted to choose the population and respondents for the study that was limited to Nigeria's first and second generation universities that are thirteen in number. A fifty - three percent sample was adopted to select the number of universities for the study that eventually came to seven out of thirteen existing first and second generation universities across Nigeria's six geopolitical zones. The universities chosen include: Universities of Ibadan, Nsukka, Ahmadu Bello, (Zaria) being first generation universities and then the Universities of Ilorin, Maiduguri, Port Harcourt and Bayero University in Kano (BUK). A total of seven thousand, one hundred and sixty respondents were selected for the study that included, Directors of Academic Planning and Directors of Information Communication Technology centres (ICT), universities academic staff, first year and final year students in selected faculties of the universities. Faculties selected for the study were: Arts, Education, Science, Social Sciences and Agriculture. Directors of Academic Planning and Directors of ICT chosen totaled fourteen (14) for seven universities. Eight hundred and thirteen (813) academic staff were chosen from the seven universities while three thousand, two hundred and sixty nine (3,269) first year students that cut across first and second generation universities and three

thousand and sixty four (3,064) final year students were chosen for the study. The researcher in company of well trained research assistants administered the questionnaire.

The research instrument used for this study is Nigerian Universities Information and Academic Planning Effectiveness Questionnaire 1 (NUIAPE) that obtained a reliability coefficient of $r = 0.602$. The hypotheses raised were tested using T tests, ANOVA and the Scheffe Post Hoc analysis were employed at $P < 0.05$ level of significance and descriptive statistics was employed to analyse the research questions.

Theoretical Framework

The theoretical framework adopted for this study is the information capacity theory.

Information Capacity Theory

The information capacity theory in organisations emphasises the abilities of organisational staff to put themselves in vantage position to acquire relevant information that are related to their goals and objectives. The theory emphasises certain innate variables for example, interest, creativity, aspiration, insight and how they affect the attitudes of organisations to information sources and the utilisation of such information (Okpeke, 1984; Okwilagwe, 1985).

The personality, emotion and mental variables identified by (Okwilagwe;1985; Tennenbaum and Schmidt, 1958) include organisational norms, workshop pressures and time. It is stated that these factors affect managers behaviour in organisational setting like universities and its environment. The theory further emphasises and works toward balancing information on the same subject with a divergent view and therefore goes to the sources of such information to get the right information that will lead to the right decisions. The information capacity theory is much more about the ability to get the right information to avoid wrong decision. This study is of the opinion that in the university setting, to attain academic planning effectiveness, sources of information must be ascertained, established and put in proper perspective for good work thereafter. Major issues in university governance have to do with taking choices out of several competing alternatives in the face of scarce resources; that is the essence of

management and so adequate information must be available to the planning managers at all times in the right quantity and quality. The managers in the universities planning unit must cross check information over and over again from the faculties and departments. The mainstream of the university administration is the academic planning section that verifies university's university internal policies with external policy formulators as the NUC and the Federal Ministry of Education (FME) within a limited frame, hence the capacity to get such information must be associated with speed leading to the acquisition and utilisation of modern ICT equipment as computers, internet, networks, databases, etc. Earlier scholars had decried the availability of the electronic communication system in Nigeria (Aiyepoku, 1982; Tushman & Scala, 1981).

In summary, the information capacity theory relates the utilisation of information to its generation and availability which is a function of the capacity to acquire, process, store such information and retrieved when needed.

Findings

Research Question 1

What is information generation in universities?

Information has been variously described in several ways by several scholars. Nwankwo (1985) described it as that item which gives the possessor advantage over others in any endeavour. Okpeke (1984), Ricks (1992) and Norton (1970) see it as the resource for efficient organisational management since it enables positive organisational decisions. Aiyekpeku (1978) agrees that information strengthens the possessor to an advantage. Specifically, Nwankwo (1985) states:

...information gives the possessor power and influence over and above the authority he may be legally vested with in any organisation; power that gives the ability to get things done-flows into the hands of those who have the most (as well as the most up-to-date) information. People are more likely to be guided by those who know more and better. Thus a first principle in achieving managerial effectiveness is to have access to the most reliable and up to date information... (Nwankwo, 1985:11)

Grimshaw (1995) and Owens (1997) explain that the value of information has suddenly been realised, hence profit and loss has suddenly become a function of much of information or lack of information. Aiyekpeku (1978) further clarified the position by stating that there are various types of information in an organisation. Some are relevant while some are irrelevant depending on the level of managerial operations at which such information is needed. According to (Mondy, 1990; Plunkett and Attner, 1994; Hodge, Anthony and Gales, 1996; and Griffins, 1993), for information to be useful, it must be in understandable formats, reliable, accurate, relevant and complete. Also, they must be timely and accessible.

The growing complexities in organisations require that information be generated especially of educational institutions. A core factor in many countries requiring the generation of information is the rising number of universities that require adequate information for academic planning effectiveness. In Nigeria, the number of universities has risen from forty - six in 1999 to one hundred and four licensed universities in 2010 (JAMB, 2010), and many are still expected to open in the next few years. Administrators and Planners in the national universities system require adequate information to plan on issues that bother on school mapping and their locations, adequacy of facilities for students and maintenance of standards in schools (Fabunmi, 2004).

Information generation in universities has become a matter of concern as universities are basically concerned with the development and production of quality graduates that will improve and enhance productivity (Babalola, 2009). In some cases, the universities like other sectors of the Nigerian economy are faced with inadequate infrastructure to generate and create information (Adimorah, 1993 and Babalola, 2010). To find out the ability of universities to generate information, an inventory was taken through the questionnaire on academic staff, students subdivided into freshmen and women and final year students and Directors. The result of the findings is stated below in research question 2.

Research Question 2**What is the level of information generation in universities?**

The level of information generation in Nigerian universities has been ascertained through answers to questions raised among lecturers, fresh students and graduating students in Nigeria's first and second generation universities that are presented thus'

Table 1: Responses of Academic Staff in Nigerian Universities to Information Generation for Educational Planning

S/N	ITEMS	Classification of University	A	D	T	Mean %
1.	You generate information regularly in your daily duties as lecturer in this institution by writing, submission of documents to higher authorities or through the writing memos.	First Generation Universities	(97) 378	(3) 10	(100) 388	93
		Second Generation Universities	(89) 382	(11) 15	(100) 397	

A - Agree, D- Disagree, T - Total, Pass = 50%

Table 2: Responses of Freshmen and Women in Nigerian Universities to Information Generation for Academic Planning

S/N	ITEMS	Classification of University	A	D	T	Mean %
1	Since you came into this university you have submitted documents	First Generation Universities	(95) 1,317	(5) 220	1,537	94.7

	containing information about your personal self and other aspects of your academics to the university authorities through forms at departmental, faculty, university hospital, health centre or hostel ,etc.	Second Generation Universities	(94.7) 1,780	(5.3) 106	1,806	
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A - Agree, D- Disagree, T - Total, Pass = 50%

Table 3: Responses of Finalyear Men and Women on Information Generation for Educational Planning in Nigerian Universities

S/N	ITEMS	Classification of University	A	D	T	Mean %
1	You have regularly supplied information to the university authorities throughout the duration of your studies in this university for either personal or academic purposes.	First Generation Universities	(73) 883	(26) 326	1,209	70.5
		Second Generation Universities	(68) 1,080	(32) 502	1,582	

A - Agree, D- Disagree, T - Total, Pass = 50%

The findings in Tables 1 to 3 are quite explicit. Academic staff in Nigerian universities of the first and second generation category generate 93% information while new entrants into the universities generate 94.7% of information and their final year counterparts generate 70.5% of information in the universities system. The Tables have far revealing statistics that will be discussed in the next section.

Hypothesis 1

There is no significant difference in information generation between first and second generation universities in Nigeria.

Table 4: T- tests showing difference in information generation for academic planning purposes between first and second generation universities in Nigeria

Variables	N	Mean	Std Dev	Std Error	df	t _{value}	Sig
1 st Generation Universities	3,663	13.09	3.476	0.062	7,160	1.526	.127
2 nd Generation Universities	3,497	13.37	3,532	0.54			

Ns – Not significant @ P < 0.05

Table 4 gives a T-tests value of tvalue1.526 df = 7,160 and an alpha level of .127 indicating that information generation is not significant at P < 0.05. It implies that there is level of difference in information generation capacity between first and second generation universities. What can be responsible for these differences?

Hypothesis 2

There is no significant difference in information generation among Nigerian universities on account of geopolitical zones.

Table 5: ANOVA Test on information generation capacity among Nigerian universities in the six geopolitical zones

Variables	Sum of Squares	df	Mean Square	F	Sig
Between	3577.732	7	596.289		**

Groups				50.334	.000
Within Groups	85757.156	7239	11.847		
Total	89334.888	7245			

* Significant @ $P < 0.05$

Table 5 indicated a significant difference in information generation capacity on the basis of geopolitical zones with $F(7, 7239) = 50.334$; $P < 0.05$ meaning that all geopolitical zones have some levels of difference in the contributions to Information generation capacities in the universities. A Scheffe Post Hoc Analysis was used to determine the relative contribution of each geopolitical zone as shown in Table 6.

Table 6. Post Hoc Analysis on the Relative Contribution of Nigerian Universities to Information Generation Capacities

Zones (I)	Geopolitical Zones (J)	Mean Difference (I) – (J)	Std Error	Sig
South West (UI)	North East (Unimaid)	-2.48*	.191	.000
South East (UNN)	North East (Unimaid)	-2.40*	.174	.000
North Central (ABU)	North East (Unimaid)	-2.40*	.176	.000
South South (Uniport)	North East (Unimaid) & North West (BUK)	-2.13*	.177	.000
North East (Unimaid)	South West – UI	2.48*	.191	.000
	South East – UNN	2.40*	.174	.000
	North Central – ABU	2.40*	.176	.000
	South South – Uniport	2.13*	.177	.000
	North West - BUK	2.84*	.170	.000
North West (BUK)	South South – Uni Port	-.71*	.140	.000

Table 6 indicated that there were differences in information generation between University of Maiduguri and all other universities. The results shown that the ANOVA tested significant hence the Post Hoc Analysis to find the level of relative contribution of universities in the respective geopolitical zones. What could be responsible for the variance of the University of Maiduguri in the North East geopolitical zone? In the absence of that, other variations were between the university of Portharcourt and Bayero University in Kano. The reason and causes of these variations shall be discussed.

Discussion

The findings show that generating information in Nigeria for academic planning purpose is almost at the optimum with academic staff generating 93% information, freshmen and women generating 94.7% information and final year students generating 70.5% information. The finding is in line with the results obtained by Nwankwo (1982) and Barnes (1966). In Nwankwo(1982) study, it investigated the need to introduce Management Information Systems (MIS) to higher education institutions in Nigeria and observed that Nigerian higher education institutions generated good information but the quantity was not established as he worked on a large number of institutions in Nigeria's existing 19 states structure and recommended that MIS be introduced immediately. Barnes (1966) came up with a similar finding in the USA when he observed that the level of information generated by the USA Army in the form of papers, lectures, monographs and drawings were equivalent to 2.5billion metric tons of paper. He advocated for a better method of managing information.

This study has been able to establish the degree of information generation in Nigerian universities. It is obvious that the rate of information generation increase will continue to rise with expansion in admission, creation of additional universities to existing ones and in consonance to any policy favourable to access to universities.

Tables 1 to 3 show that academic staff information generation capacity in first generation universities is 97% while that of second generation universities is 89%. There is a gap of 8% between academic staff information generation in favour of first generation universities. For freshmen and women, information generation capacity is 95% while

that of second generation universities is 94.7% giving a gap of 0.03% in favour of first generation universities. For final year men and women, it was 73% information generation capacity while it was 68% for second generation universities. It is evident that information generation capacity in first generation universities is more though with fewer students, academic staff and total number of schools when compared to second generation universities. It is likely that some factors may have accounted for this. A closer observation of Table 4 indicates that the null hypothesis tested significant at .127 @ $P < 0.05$ indicating that there are differences in information generation capacities of first and second generation universities.

Factors Responsible for Differences in Information Generation Capacities in Universities

With the findings of this investigation, the following factors may be responsible for the difference in information generation capacities of first and second generation Nigerian Universities.

Funding and Infrastructure

A core issue in Nigerian higher education development and management has been funding and infrastructural inadequacy (Adeyemi and Uko - Aviomoh 2004; Akpochafor and Fellio, 2006; Babalola, 2010). While Adeyemi et al (2004) observed, studied and projected infrastructure in Nigerian Higher Education and forecasted till 2050, his forecast indicated a widening gap between infrastructure and personnel, etc. Akpochafo and Fellio (2006) observed that the right infrastructure were not in place while the observation of Babalola (2010) showed a negative congruence between infrastructure and needs in Nigeria's higher institutions. Also, (Ewart, Isah and Fabunmi, 2008) were able to show that there is a difference in financial allocations between first, second, third and fourth generation universities in Nigeria. It is not unlikely that the variance in financial allocations accounts for the difference in infrastructure and information generation capacities.

The Age Factor

It is also note - worthy that the age in which universities were founded accounts for variation in their performances. For example, in the 2010 world university rankings where the best one hundred African universities were ranked, the Nigerian universities ranked were: Universities of Ilorin, Ibadan, Ife, Lagos and Jos. Clearly, Ibadan, Lagos and Ife are among Nigeria's first generation universities while Ilorin and Jos are second generation universities. Ibadan was founded in 1948 while Lagos and Ife were founded in 1962. Ilorin and Ife were founded in 1975. Though the total number of first generation universities is six, the listed universities accounted for 50% of the universities in that category while the others are from the seven second generation universities, out of which only two representing 28.5% were listed. It is most likely that the age factor has enabled more development in those institutions compared to their counterparts in the third and fourth generation category.

Social and Environmental Factors

Environmental factors include issues as weather and climatic elements, business environment whether friendly or harsh, cultural tolerance, social security and general government interest in wooing foreigners to an environment (Isah, Ewart and Fabunmi, 2008). In recent times, the North East geopolitical zone in Nigeria has been a hot bed of unfriendly business activities. In the first instance, it has a harsh climatic environment with extremes of geographic temperatures (Adebayo, 2010). Further to this, it has been a hot bed in recent times of religious intolerance beginning from the era of the '*Maitatsine*' riots in the early 80's and recently the '*Bokos Haram*' uprising yet to quell in the region. With such antecedents, the region is disadvantaged in almost all fronts as it is likely to lack human resources. The case of the University of Port Harcourt is almost not different from that of Unimaid, as recent agitations in the Niger Delta region of Nigeria (Isah and Babayemi, 2009) could have influenced the region.

On the other hand, relatively friendly and stable regions have shown progress and congruence in information generation for example, the University of Ibadan. In spite of its age, the region has provided a good working atmosphere. It has been able to attract and influence

high level and good quality human resources; hence it is not surprising that its contribution to information generation is high. It is likely that other universities in the region that have witnessed such peaceful atmosphere will make progress.

Economic and Bureaucratic Redtapism in University Management/Administration in Nigeria

Economic factors have been contributory to the ability to keep generated information, as infrastructure for such are hardly available. An example is in Bayero University in Kano (Ali, 2009). The University Director of ICT explained that much progress should have been made in the area of information generation and dissemination but most of the time, university equipment go out of compatibility due to the speed of research in that area globally, and spare parts become difficult to get. In cases where upgrade of equipment is necessary, it often takes years to get senate approval and then, the value of such items would have been reviewed and new products would have taken the place of the ones requested by the ICT department. In most cases, the universities are left with what they can use and improvisation where applicable. This is the case also with the University of Port Harcourt.

Several challenges are associated with information generation for academic planning in universities. These include: personnel problems, access to ICT enabling information dissemination, poor infrastructure (local and national), unfriendly economic and business climates, unfriendly government policies, inconsistencies in university education calendar, which is unattractive to education aid donors internationally, and poor national leadership.

Policy Implications for Education Planners

The following policy options are hereby recommended for educational planners in Nigeria.

Creating a Conducive Teaching/Learning Climate

This paper is of the opinion that policy makers have the mandate to integrate education with society and by extension the community. With the complex social, economic and cultural problems facing the location of some of the universities, policy makers should make a keen observation with the intention of singling out less viable locations for

greater development. For example, the semi arid climate and the extreme Northern location of the University of Maiduguri and the University of Port Harcourt's riverine nature makes them unattractive to high level technical personnel that institutions of such nature needs. In the event of getting alternatives, such personnel and intending promising students would opt for changes to places with high social security. Policy makers should build in cushioning effects to reduce the stress experienced by lecturer academics and students in these institutions.

Modernising Information Management Techniques in Universities

The problem as discovered in this study is not the generation of information but appears to be associated with the management of generated information. It is the opinion of this investigation that policy makers, after evaluating the situation, provide efficient methods of information management. While it is agreed that the National Universities Commission (NUC) in Nigeria has effected that, the Management Information Systems in Nigeria's universities need rapid evolution to compare favourably with their counterparts in other parts of the world in terms of recent equipment, international exposure to ICT, staff and organizing training programs for staff and students to make them ICT compliant in line with the National Technological policy on ICT.

Information Sensitization for University Staff and Students

Recent studies indicate that level of awareness of information needs in universities is still very low Akomolafe (2008) estimated it at below 65%. Sometimes, the generator of an information may not be the utilizer of such information, hence there is the need for proper sensitization on the importance and role of information in academic and general educational planning. It is the suggestion of this investigation that policy makers include information generation, accessibility, utilisation and availability to all orientation programmes in the universities. Most universities don't conduct orientation programmes for staff. It is the suggestion of this investigation that henceforth, members of staff should get into employment adequately armed and prepared for their jobs.

Evolve Policy on Electricity Infrastructure

This investigation suggests that policy makers evolve electricity generating programmes in the universities. No matter the level of transformation, no equipment will function without electricity. The problem of electricity is a national one for over fifteen years and it is expected that a national plan for higher education should be out now. The Integrated Power Projects should be extended to universities with adequate funding to see it through.

Conclusion and Summary

Information is a strategic resource for any planning to be meaningful. It is clear that information generation level in our universities is high. This study estimated it to be above 70% for the least category. It is a subject of concern that with this level of information generation, there are still complaints of non availability of information. However, it is not worthy that some remedial actions can be taken by policy makers as suggested in the recommendations.

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