MANAGEMENT OF INFORMATION AS PREDICTOR OF ACADEMIC PLANNING EFFECTIVENESS IN NIGERIAN UNIVERSITIES

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ABSTRACT

The problem of unreliable information has crept into the Nigerian university system adversely influencing academic planning effectiveness. Previous studies have investigated the management of information acquisition, dissemination and administrative effectiveness, but have not adequately addressed the management of information as a predictor of Academic Planning Effectiveness (APE). This study, therefore, investigated the management of information as a predictor of academic planning effectiveness in Nigerian universities.

The study adopted the survey research design of the *ex-post facto* type using the multi stage sampling procedure. The study population comprised 14 Directors of Academic Planning Units (APU) and Information Technology Centres (ITC), 813 Lecturers, 3,269 new undergraduate students, 3,064 final year students purposively selected from Faculties of Arts, Education, Social Sciences, Science and Agriculture from seven of Nigeria's thirteen first and second generation universities. Four questionnaires: Nigerian Universities Information and Academic Planning Effectiveness Questionnaire (NUIAPEQ) 1- 4, and a checklist were used to elicit responses. NUIAPEQ 1 for Directors of APU/ITC (r = 0.80), NUIAPEQ 2 (r=0.60) for lecturers, NUIAPEQ 3 (r=0.60) for new students and NUIAPEQ 4 (r=0.76) for final year undergraduates. Seven research questions were answered in addition to five hypotheses that were tested at 0.05 level of significance. Data were analysed using descriptive statistics, Pearson Product Moment Correlation (PPMC) and multiple regression.

Significant multiple relationship existed among Information Generation (IG), Information Availability (IA), Information Utilisation (IU) and Academic Planning Effectiveness (APE). Correlation between IG and APE for Directors of APU/ITC (r=0.73), lecturers IG and APE (r=0.23), new undergraduates (r=0.27) and final year (r=0.32) at $p<0.05$. Correlation between IA and APE for Directors (r= 0.84), lecturers (r=0.32), new undergraduates(r=0.26) and final year (0.33) at $p<0.05$. Correlation between IU and APE for Directors (r=0.64), lecturers (r=0.26), new students (r=0.33) final year students (r=0.44) at $p<0.05$. Combined influence of IG,IA,IU on APE were observed: directors ($R=0.089$, $R^2=0.78$, $F_{(3,11)}=114.94$), lecturers ($R=0.56$, $R^2=0.31$, $F_{(3,773)}=117.92$), final year students ($R=0.40$, $R^2=0.16$, $F_{(3,2927)}=187.66$), new students ($R=0.34$, $R^2=0.115$ $F_{(3,3251)}=140.65$) at $p<0.05$. Relative contributions were made to APE by IG in the following order: lecturers ($\beta=0.91$, $t=1.75$), directors ($\beta=0.64$, $t=1.62$), final year students ($\beta = 0.13$, $t=6.44$), new students ($\beta=0.15$, $t=9.90$), IA to APE; Directors ($\beta = 1.12$, $t=1.95$), lecturers ($\beta = 0.45$, $t=8.96$), new undergraduates ($\beta=0.19$, $t=6.13$) final year students ($\beta= 0.28$, $t=8.88$), IU to APE; final year students ($\beta= 0.38$, $t=11.27$), lecturers ($\beta=0.34$, $t=8.12$),Directors ($\beta= 0.22$, $t=0.54$), new undergraduates ($\beta= 0.15$, $t=6.08$) at $p<0.05$.

Information generation, availability and utilisation significantly influenced APE. Universities should be adequately funded to enable effective maintenance of equipment needed to continuously impact positively on APE. Regular training and updating on ICT usage for directors of APU/ITC, lecturers and students should be provided to improve APE.

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Key word: Information Management, Academic planning effectiveness, Nigerian universities

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DEDICATION

This Thesis is dedicated to the Lord God Almighty and to my dear wife and Children - Olubukola, Faithful, Happiness and Praise

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CERTIFICATION

I certify that this study was carried out by Mr. Emmanuel Aileonokhuoya Isah in the Department of Educational Management, Faculty of Education, University of Ibadan, Ibadan, Nigeria.

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CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

The planning of education is given utmost attention and priority universally and Nigeria is not left out of this quest. Okoli and Umeh (2007), explain that the Nigerian government pays much attention to the production of manpower through its educational system hence, expends heavily on education. The Nigerian National Policy on Education (Federal Republic of Nigeria, 2004:2) describes education as '*instrument par excellence*' implying the priority the Federal Government of Nigeria (FGN) attaches to education and by extension, educational planning. Education and its planning are perceived by the FGN as pivotal to Nigeria's growth, development and aspirations.

The beginning and development of modern university education is ascribed to universities in Europe specially Bologna in Italy, Oxford and Cambridge in the United Kingdom between the ninth and eleventh centuries (Adekanbi, 2008). It was after these initial universities that other universities began to evolve in other parts of the world but researchers recall that at the times under reference, Africa was still in her primitive stages in the shackles of slave trade and later in the yokes of colonial masters. Global trends at the time indicated that educational development specially western education was non- existent in Sub Saharan Africa and Nigeria. Freedom did not beckon to Africa until the 18th century when educational reforms began in the colonies and in the then protectorates of Britain. Nigeria gained political independence from Britain in 1960.

Fafunwa (1974), explained that university education was introduced into Nigeria before political independence. The University College, Ibadan was established in 1948. At the time the full fledged university of Ibadan came into being in 1962, other universities in othser parts of the world had reviewed their vision and mission plans several times since they were several centuries older than the first university college in Nigeria (Adekanbi, 2008). Added to this, Nigeria's university education development began late like other Sub Saharan African countries. One of the reasons for this late development was due to the advocacy mounted by the early Human Capital Theorist (HCT) of the late nineteenth and

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early twentieth centuries in favour of the development of primary and secondary education to the detriment of university and tertiary education. Later, some HCT scholars as Schultz (1971), and Psacharaopoulus (1973), modified the early assertions of the HCT that was eventually amplified by modern HCT. A school of thought among modern HCT advocated that governments must invest in the production of high level technical manpower while another school of thought like the International Bank for Reconstruction and Development (IBRD) and International Monetary Fund (IMF) were, and are still, of the opinion that the forces of demand and supply should be allowed to determine the price of education in the Third World. Babalola (2011), reviewing the positions of these global bodies on their policies for sub-Saharan African education explicitly informed the world that developing nations will not meet the goals of education without government intervention and funding. It must be noted that not all initial HCT were united on the issue of government non interference in tertiary education.

The classical HCT propounded theories that found testing grounds in newly independent nations like Nigeria. It was argued then that returns on investments in primary and secondary education far outweighed returns on investments to tertiary education that was then perceived elitist and luxurious by Human Capital Theorists. Several scholars punctured the postulations of the early HCT. For example, Akangbou (1985) saw university education in Nigeria as a place for training high level technical manpower that could transform the Nigerian economy and hence strongly advocated that any government interested in developing its economy must first take interest in higher education and then invest heavily in it. Longe (2000), was able to point out that the earnings which an individual received commonly referred to as life earnings profile is a function of the level of education received by the individual. In essence, a person with low level of education will of necessity receive lower income since skills acquired at that level will also be low. Further to this, International Bank for Reconstruction and Development (IBRD, 2007), Erwat, Isah and Fabunmi (2008) were able to show that developing nations that paid attention to the development of tertiary education excelled beyond others in recent years, for example, the countries of East Asia commonly referred to as the Asian Tigers (Korea, Singapore, Taiwan, Hong Kong, Malaysia etc) had, in the last quarter of the last century, recorded

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tremendous growth in their economies that was ascribed to the role played by changes in education and especially their renewed emphasis on higher education. The laudable achievement of the Asian Tigers reflected on the vision of developing world economies to review education and tertiary education policies.

Prior to Nigeria's independence, in 1960, the FGN saw the need to plan education hence it inaugurated the Ashby commission (FRN, 1960) to look into and plan education especially tertiary education (universities) for a period of twenty years, from 1960 to 1980. The purpose of such planning was to ensure that there were sufficient high level technical manpower to replace the colonial expatriates and other high level technical manpower that will be vacating Nigeria after political independence in 1960. Akangbou (1985) and Fabunmi (2004) reported that the Ashby commission recommended an additional four universities to the then existing University of College at Ibadan to make five. However, it was observed that by 1970 just ten years after the adoption of the policy, there were already six functioning universities in Nigeria with the sixth being the University of Benin. This was perceived to mean failure of the plan.

Most scholars saw the cause of the failure of that plan as being the adoption of the Harbinson rule of the thumb principle for decision making in connection with estimates for those to benefit from the policy. Fabunmi, (2004) reported that the method adopted was unempirical and such by 1978, Nigeria had thirteen universities that heralded the founding of the Joint Admissions and Matriculation Board (JAMB) with the mandate to manage admission into universities that have in recent years transformed into the Universities and Tertiary Education Matriculation Examination (UTME).

The establishment of JAMB to manage Nigeria's then thirteen universities was a pointer to the failure of the projection of the 1960 Ashby commission report. In 1980, when a new plan was to commence, there were well over twenty four universities in Nigeria comprising Federal and State universities in line with the existing legislation on the provision of education at that time. The foregoing explains the essence of planning education and underscores the importance of data in national planning especially for planning education.

Scholars have insisted that data and information cannot be divorced from planning and where data appear unreliable, suspect and inadequate, there will be challenges in all planning done in that country including education as Nigeria and

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other developing countries have been experiencing. Wonnacourt and Wonnacourt (1977) explained that any plan that is not based on good information or is based on suspect data is bound to fail. Aminu (1982) decried Nigeria's dependence on heuristics citing non-availability of requisite data that has affected not only education but other sectors of the Nigerian state as unacceptable.

The non-availability of requisite data apart from negatively affecting and influencing the first post independence educational plan in Nigeria has also affected some other laudable educational programmes negatively for example, the 1976 Federal Military Government (FMG) of Nigeria initiated Universal Primary Education scheme was short lived due to poor educational planning data. The programme adopted the use of prorated programmes to ameliorate obvious shortages in manpower and infrastructure after the programme had taken off which adversely affected the programme. In 1979, the Unity Party of Nigeria also commenced a free education programme in five of the then nineteen states of the Nigerian Federation. Dauda (1983) reported that improper planning on the part of the politicians especially in the area of data caused the failure of the programme although the military intervention into governance eventually destroyed every plan but it was noted that non-availability of data was a major cause of failure. Osokoya (2003) further explained that improper planning of education caused a grave delay in the implementation of the national policy on education in 1981. In Osokoya (2003) opinion, causes of delay in implementing educational programmes included infrastructural inavailability and poor data availability. For example; the exact number of teachers that were required to kickstart the implementation of the programme state by state was ambiguous.

The data challenge has gradually been growing and as Popoola and Enwere (2000) puts it; some factors are responsible for the non availability of data in Nigeria. With data unavailable, it is clear that its manifestations will be great. Scholars over the years have decried the poor management of information (data) in Nigerian universities; (Ekwere, 1990; Nwankwo, 1981 and Adimorah, 1993).

Adeyemi and Uko - Aviomoh (2004), Akpochafo and Fellio (2006) were also able to point out in their studies that the state of infrastructural decadence in Nigeria's higher education was unacceptable. Adeyemi and Uko - Aviomoh (2004) investigated the state of infrastructural lapses in Nigeria's Technological institutions with a ten year projection exposing the gaps. Akpochafo and Fellio

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(2006), on the other hand, examined infrastructural decay in tertiary institutions and observed deficiencies. The deficiencies highlighted by Adeyemi and Uko Aviomoh (2004); Akpochafo and Fellio (2006) pointed to lapses in some aspects of Nigerian education system especially educational planning statistics at higher education levels. To buttress their positions, the FGN/ASUU (2001 and 2009) agreements pointed to the fact that all parties were aware that there are infrastructural deficiencies in Nigerian universities and tertiary education system that have not been addressed. These highlighted deficiencies point to some level of lapses in academic planning in universities.

In most Nigerian universities, the academic planning unit or department is often a part of the university central administration that is attached to the Vice Chancellor's office due to its importance but is often not very visible in the scheme of affairs. The functions of academic planning unit as stated by Ojedele and Ilusanya (2006) are;

1. Planning university wide programmes in order to conform to minimum academic standards as set out by the National Universities Commission (NUC).
2. Ensuring quality control internally for all academic programmes as set out by the NUC.
3. Compiling and categorizing the teaching, research and equipment needs of academic programmes in universities.
4. Assessing high level manpower requirement of the university.
5. Collecting, collating and analyzing data on staff, students and facilities as well as recurrent expenditure in universities to ensure compliance with standards and submitting same to the NUC with the aim of including such data in the NUC data bank.
6. Preparing universities annual recurrent grant request to be included in the University's annual budget preparation process for onward transmission to the NUC to be incorporated into the NUC's budget preparation process.
7. Holding annual university system review meetings to enhance financial projections and plans.
8. Evaluating the annual university target plans for each section of the university and evaluating their performance for onward transmission to the university authorities and the NUC.

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9. Supplying information on departments, faculties and other important areas in the university community with the intention of matching performance with strategic plans.

From the foregoing which is not exhaustive, it is clear that the academic planning unit serves as the hub upon which the university administrative and managerial machinery rests. Interest for this study stems from item five and nine (5,7,8 & 9) in the list of functions listed above to which this investigation is directly targeted. While academic planning section serve as academic hub of universities, most researchers have not seen the need for innovation in the university system which could be the source of these perceived anomalies in the Nigerian university system since it has the function of monitoring and control.

This investigation is of the assumption that a good plan would be monitored until successfully executed. (Katz and Khan, 2006) described the department of academic planning as the heart and soul of the university system. The Middle States Commission in Higher Education in America (MSCHEA, 2005) explained that information which will transform any university must include; definition of university goals, implementation strategies of such goals, assessment and evaluation criteria of the goals, paths to improvement after assessment. The document also explained that the purpose of information is of extreme necessity to academic planning in that such information gives an overview or a periodic self study of the institution, follow up on academic activities, charts new road maps that outline assessment and documentation, leads to general plans that come up with an understanding on the methods of evaluation and assessment of information generation and its utilisation techniques.

Several possible options on the management of information usually arise in organisations. These options are the components in management of information that include; generation, availability and utilisation of information. As a higher education institution, investigating academic planning effectiveness using information as a background will need to answer mind boggling questions such as; what level of information for planning is available in universities? Are these information classified? From where does an academic planning unit generate its information? What is the level of generated information in the process of managing information and what is the level of utilisation of such information? How easy is it to eliciting information from university administrators in the process of any endeavour or research project?

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In the past, researches embarked upon by investigators were mostly concerned with administrative performance of university personnel, instructional competences of university teachers, infrastructural projections of universities etc (Soyibo, 1984) and Ewart (2004). Again, most literature on academic planning have centred on university self study programmes embarked upon by department of academic planning in universities without a good synopsis on how that very department (Academic planning) manages its information. An example of this can be deduced from Khaz and Khan (2006). This investigation appears to be an independent pioneering investigation into the effectiveness of academic planning in universities using information management as its thrust.

Management of Information (MIS) has become a global issue. This is because information has become an important resource for all organisations. It serves as competitive edge for firms and organisations over another (Nwankwo, 1985). The value of information and its management can further be captured from the works and studies of Barnes (1966) who worked on the American Army and Military. As a resource, information is indispensable. In university academic planning, it is difficult to understand how information is managed without investigation. It is therefore important to find out what happens to information generated in universities from stakeholders. In this study, stakeholders include: Directors of Academic Planning Units in Nigerian Universities and Directors of Centers of Information (Data Processing Units/ Management Information Centres), lecturers and students (these include new students and outgoing students) since it is possible to see what a student is at inception and what he looks like on departure. The impact of these measurements are far reaching as it is possible to see the level of information generated in the process of management of information, levels of storage of generated information (availability) and the utilisation of such information. In Nigeria, the issue involved in management of information has become complex, cumbersome and expensive. In most cases, it is perceived that the cost of acquiring equipment for information is a cause of data inavailability (Babalola, 2010).

In some self studies embarked upon by some world class universities like that of the University of Pennsylvania (2004), it was explained that the purpose of its self study was to find out the effectiveness of instructional methodology in the university. Its findings were geared towards enabling the university adopt changes based on both what is rather than what ought to be. The programmes are designed to avoid blind

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execution of unknown programmes. The study provided empirical foundation for changes that the academic planning department proposed to the university council and was adopted. The same applied to the University of Wisconsin in the United States of America (USA), University of Australia and the University of Massachusetts.

These aforementioned universities conduct effectiveness of academic planning regularly using tools administered to stakeholders on various indices considered important especially on new and outgoing students. The instruments often involve indices as the status of accommodation for both teaching staff and students, teaching methodology, orientations services for staff and students, counseling services, satisfactions with course a student is admitted to study, skill acquisition etc but in this case, the same indices are used in the context of Management of Information (generation, availability and utilisation). This study investigated the management of information used in academic planning in Nigerian universities. The result that will be generated from this study will provide an insight into the level of information generated in Nigerian universities in the course of management of information. It will show the level of information available and utilisable in the process of management of information and finally show the levels of academic planning effectiveness using the indicators mentioned above.

World class universities utilise information from academic planning effectiveness to improve on their productivity. This may be the reason for their perceived continuous monopoly of the top hierarchy of World Universities rankings since 2005. Nigerian universities need to emulate these world class universities by embarking on personal self studies to generate empirical information capable of changing the present situation in Nigerian universities. It is observed that what appear near a self study by some of the older Nigerian universities otherwise called first generation universities especially the university of Ibadan resulted in the now controversial 'Post University Matriculation' (UME) examinations that is held after the regular Universities Matriculation Examinations (UME) organised by the Joint Admission and Matriculation Board (JAMB). Within the period of its implementation, tremendous changes have been noticed in universities especially the well known traditions of awarding limited first class degrees to students usually below twenty but in recent years, with the adoption of the weighted cumulative pass mark in Post UME examinations, the qualities of degrees have improved tremendously for example, a

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perusal of the University of Ibadan 2010/2011 graduation brochure reveal the award of not less than 50 first class degrees.

Again, it is muted that the introduction of improvements in quality of education in universities through accreditation of courses and programmes is as a result of some studies embarked upon by the National Universities Commission (NUC). Though this investigation did not center on the effectiveness of accreditations and the Post UME it only used it to show the benefits that will accrue to organisations that embark on academic self study programmes but the study looked into the effectiveness of academic planning especially in older universities described by the NUC as first generation universities.

Unfolding events in university administration and comments from Nigerian universities stakeholders point to lapses in the areas educational programmes planning and implementation. The need to address such lapses inspired the need to investigate the academic planning sections of our universities. Recent revelations, accusations and buck passing between the National Universities Commission (NUC) and the management of some Nigerian universities called for investigation. The NUC often queries the rationale behind the admission figures of universities. For example, the NUC threatened to shut down some of universities if their managements were unwilling to abide by laid down regulations. In extreme cases, the NUC seized some university licenses. Ojedele and Ilusanya (2006) citing the NUC observed that flouting laid down procedures was an offence applicable to both Federal, States and private universities. A case in point was observed when Olabisi Onabanjo University (OOU), Ago Iwoye that belongs to Ogun state government was alleged of enrolling students twice the population of the universities of Ibadan, Lagos and Obafemi Awolowo University (OAU) Ile Ife put together without any infrastructure to back it. Though the university may be accused of that, how did it continue with such practices for such a long time without being detected, and it is well known that OAU, university of Lagos and university of Ibadan are first generation universities while OOU is a third generation university by the NUC classification. Are there information facilities put in place to monitor such developments? The development was embarrassing to the owner state government, the university management and students but may not have been an embarrassment to the university administrators.

Another case that was identified by the Executive Secretary to the NUC was that of the Lagos State University (LASU) accused of enrolling students using

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unrecognized multi campus system alien to NUC regulations. This study wonders what could have resulted in the adoption of such an abnormal education policy by public institutions. The whole issues appear associated with inadequate academic planning mechanisms especially the utilisation of information. This cannot be said to be the case unless investigated.

In Nigeria, Federal universities run under one proprietorship that is the Federal Government of Nigeria (FGN) through her principal agencies; Federal Ministry of Education (FME) and the NUC but it is not the case with state owned universities. Each state has its own policy which it expects its universities to conform to despite conformity to the policies of the regulator. With the unfolding events this study dares to ask; are these institutions in possession of requisite information or are they aware of the levels of expectation from them? It is the foregoing that calls to question academic planning modalities in Nigerian universities. While some universities may not have challenge of information it appears that it is more pronounced with old state universities as Ambrose Alli University, (AAU) Ekpoma in Edo State, Olabisi Onabanjo University (OOU) owned by Ogun State Government and LASU owned by Lagos State Government although from the works of Ojedele and Ilusanya (2006) Federal universities also have their deficiencies. The cost of such a venture will constrain this study to Federal universities of the older stock, that is First and Second generation universities

Issues which bother researchers particularly planners is what (Aiyepeku, 1987) described as planning under uncertainty. (Wolfgang, 1966) also saw the same issue as planning without facts. It is suspected that perhaps many of our universities lack adequate planning tools especially information.

Aiyekpeku (1978), described information as that aspect of study that douses uncertainty while Nwankwo (1985), described it as that element in any endeavour that gives its possessor an advantage over others. Information from the foregoing increases awareness, enhances creativity, provides focus and direction for its users. In generating information, some level of awareness may be necessary for the generator. Information at other times may not necessarily be paper creation because as Nwankwo (1985) explained, it could be in the form of sound or micro film etc hence there are several methods of generating information but the most important aspect is the keeping of records concerning generated information while managing information. In essence, the present situation on information in universities require creatively

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planning its availability that brings to the fore issue of its planning as being an integral part of educational planning.

In the process of managing information, generated information can be kept in formats that are either manual or electronic (Fabunmi, 2003). Generated information can be kept in formats that make them accessible to users for retrieval regularly. What do such users do with these information, the issue brings to mind, utilisation of information that eventually gets to the academic planning office in university setting. Haiman, Scott and O'connor (1976) explained that the value of information is such that its availability is of essence. Information can be preserved manually or electronically. Information stored and is available can easily be kept in databases from where it can be retrieved and transformed into other uses. It is also said that information is flexible (Fabunmi, 2000). The statement by Haiman, Scott and O'connor (1976) can always be tested by asking if universities have databases from where information can be retrieved and utilised when necessary and specifically, Nigerian universities.

Apart from the academic planning office in universities, several other stakeholders use and require information in universities for example, students require information and lecturers do same. Today, lecturers and students require training and skills to be able to access available information in order to utilise it effectively but how many of these stakeholders have requisite training to meet such challenges? what are the levels of support infrastructure available to universities to carry out intensive academic planning in universities? It is noted that in recent years our universities system has been growing. Such growth require a commensurate growth in infrastructure which is not forth coming (Adeyemi & Uko-Aviomoh, 2004; Akpochafo & Fellio, 2006; Emunemu & Onuka, 2009) Nigeria presently has one hundred and seventeen operating universities that produce over one hundred thousand graduates annually. The present perception of most graduates by stakeholders includes their inability to compete in the global labour market (Afe - Babalola, 2010; Awopegba, 1995 & JAMB, 2009). Reasons are that skills acquired by graduates in schools before graduation are becoming obsolete. This is because the world is globalising and we are retrogressing due to lack of foresight as to what the world will look like in another few years.

Though this controversy has been on, it calls for an indept study to investigate causes on perceived failing quality these areas inspite of rising quantity and further to

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this, the university regulating body NUC require an automated information data capture system within and outside the institutions under its purview to monitor activities in the schools. Management of information and educational planning are closely related. This study investigated causes of poor planning, training and infrastructural obosolence in universities in Nigeria.

Evidences of ineffective academic planning in universities were discernible from the study of Ojedele and Ilusanya (2006) when it unveiled the level of non compliance of universities to agreed quotas on admission by both the universities and the NUC. The admission quota is usually arrived at by consideration of the carrying capacities of universities that involves a close examination of the available human and material resources available to these universities irrespective of demand by university education applicants. (Ojedele & Ilusanya, 2006) were able to show in their study that there were several Federal, States and Private universities that flouted their carrying capacities either by over admission or under admission, for example, Niger Delta University (NDU) had an unutilised enrolment capacity of -3,629, Enugu State University of Science and Technology (ESUT) had an unutilised enrolment capacity of -3,059, Nassarawa State university had excess capacity unutilised to the tune of -1,406, Adamawa State University had -1,249, Kano State University had - 1, 201 and Adekunle Ajasin University, Akungba had unutilised enrolment capacity of -407. Several private universities also had unutilised excess capacities with the highest coming from Madonna University, Okigwe with unutilised enrolment capacity of 5, 029, Igbinedion university, Okada, Edo state had unutilised capacity of 2,259. Under enrolled Federal universities cited in the document were; Universities of Maiduguri, Uyo, Jos, NDA - Kaduna, Ibadan, FUT - Akure, and Markurdi. The above revelations create an impression that these institutions were not aware of what was required of them.

1.2 **Statement of the Problem**

Academic planning has, at various times, been described as the hub of university academic work since it is responsible for charting the academic direction of every university. In essence, it determines quality while in some other cases, quantity of graduates produced in institutions. Academic planning has the responsibility of monitoring, budgeting and controlling university plans hence its effectiveness is of

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essence to any nation, people or society. Effectiveness of academic planning is often perceived in terms of quality of academic programmes, adequacy of infrastructure in schools, satisfaction with its programmes by recipients such as students, lecturers, employers and administrators.

In recent years, there have been complaints by stakeholders in university education of perceived falling standards in skills and abilities possessed by products of Nigerian universities. Some of these complaints emanated from employers of labour and agreed to by university lecturers that train these students including students themselves who fail to gain employment after several years of graduation. Stakeholders appear to call to question the integrity and the effectiveness of academic planning in universities.

An additional challenge perceived with academic planning in Nigerian universities that calls to question its effectiveness is the management of information. A positive relationship exists between all forms of planning and information. Management of information viewed from the perspective of information generation, its availability and utilisation calls for an investigation to know how information is managed through processing and utilisation for academic planning effectiveness. It is noted that studies on academic planning effectiveness are few, and fewer studies have investigated academic planning effectiveness and the management of information especially (generation, availability and utlisation). Previous studies emphasised administrative competencies of staff, personnel development and economics of management in academic planning hence this study investigated the effectiveness of academic planning in Nigerian universities specifically finding out the relationships that exists between academic planning and management of information in terms of (generation, availability and utilisation).

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1.3 Research Questions

The following research questions were formulated to guide the study:

1.) What is the level of management of information in terms of information generation (IG) for academic planning effectiveness in Nigerian universities?

2.) What is the level of management of information in terms of its utilisation (IU) for academic planning purposes in Nigerian universities?

3.) Are the resources for accessing information available in Nigerian universities for effective academic planning?

4.) Do information generated for academic planning effectiveness in Nigerian universities by academic staff posses the quality of integrity, reliability, flexibility and adaptability?

5.) Is information reception and dissemination infrastructure uniform in Nigerian universities to positively influence academic planning effectiveness?

6.) What are the perceived evidences of successful academic planning effectiveness in infrastructure development among Nigerian universities in the management of information?

7.) What administrative plans are discernible to update students, lecturers and non - academic staff computer skills capacity for proper positioning for effective use of information in academic planning effectiveness in Nigerian universities?

1.4 Hypotheses

H_{o1}: There is no significant relationship between management of information (generation) and academic planning effectiveness in Nigerian universities.

H_{o2} There is no significant relationship between management of information (availability) and academic planning effectiveness in Nigerian universities.

H_{o3} There is no significant relationship between management of information (utilisation) and academic planning effectiveness in Nigerian universities.

H_{o4} Management of information (generation, information availability and utilisation) capacities have no significant composite influence on academic planning effectiveness in Nigerian universities.

H_{o5} Management of information (generation, availability and information utilisation) capacities have no significant relative influence on academic planning effectiveness in Nigerian universities.

1.5 Purpose of the Study

The major purpose of this study is to investigate the extent to which Nigerian universities manage information through their generation, availability and utilisation for academic planning effectiveness. Specifically, the study determined;

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i) The capacity of Nigerian universities to generate information and whether the methods used are manual or electronic.

ii) The extent to which resources for information generation and utilisation are available for academic planning among stakeholders in Nigerian universities.

iii) The perceived level of academic planning effectiveness in Nigerian universities using information from the perspective of students and academic staff.

iv) The similarities and differences in information generation, availability, utilisation and academic planning effectiveness in Nigerian universities specially between first and second generation universities.

1.6 Significance of the Study

The study is of significance to Nigerian universities and university administrators. Its findings exposed some of the areas in academic planning that require replanning and in some cases remodifications of plans in academic planning. The study revealed lapses in the area of academic planning indicators which are usually taken as unimportant for example, students counseling services, orientation programmes for new staff and students satisfaction with studies. Other area of lapse was lecture delivery that is considered important to all stake holders in the university system. It is clear from the foregoing that administrators in universities are able to fathom areas where reforms are necessary.

Secondly, the study's relevance to university stakeholders does not end at the level of academic planning, but in the area of management of information. The study explored the generation, availability and utilisation of information in Nigerian universities further revealing where and how university administrators and policy planning managers need to go when sourcing useful information that keeps the system in equilibrium in line with standard practices globally. While most administrators have not got a clear goal, this study exposed the fact that academic planning information can be elicited from the academic planning office, lecturers and students especially incoming and outgoing students.

The study is of significance to undergraduates in Nigerian universities because it enlightened them on some of the dictates in the labour market thereby preparing

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them to acquire some important skills that may not be embedded in their regular and conventional academic programmes.

The study assisted policy makers to understand, taking a cue from academic planning how to determine capacities for information generation, availability, utilisation, management of information in their institutions and where necessary conduct a self study to find out the status of these indices generated to enable transformation of their own (policy makers) universities as such indices could improve their own transformation.

Finally, the study showcases the relevance of the fact that a system requires inputs, processes these inputs and turns them into output within the fame work a relevant capacity as observed in university systems.

1.7 Scope of the Study

The study investigated information generation capacity, its availability and utilisation in Nigerian universities specifically focusing on first and second generation universities that are thirteen (13) in number. The reason being that there are specialized universities in the other generations of universities but first and second generation universities are consist of conventional universities with similar faculties and facilities that enable comparisons. The study covered the entire Nigeria - Nigeria's six geopolitical zones.

1.8 Definition of Terms

The following terms are defined as used in this study:

Information Generation Capacity: The Encarta encyclopedia (2009) describes information generation as developing messages or items related to an endeavour to be communicated while capacity is the ability to quantify what has been generated. The encyclopedia further gives insight into the generation of power, tables from a pool of data etc. This study used the term information generation capacity as the quantity of data items that can be generated by the system for its own use in the academic planning section of the universities by lecturers, students, academic planning officers with information and communication officers.

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Information Availability: This is the ability to store information after use for subsequent uses. It involves the use of storage items, processing equipment, databases and networks for university information uses especially as used by the academic planning section of universities.

Information Utilisation Capacity: This is the intensity with which available information is utilised. It includes ability to use or manipulate machines, objects, robots and computers. It also includes skills, techniques to capture and use information.

Academic Planning: Academic planning refers to the section, unit or department in universities or tertiary institutions that stream lines all academic work in line with university goals and objectives. It serves as a bridge between the university administration, the faculties and departments. It oversees planning and channeling of academic programmes.

Academic Planning Effectiveness: Academic planning effectiveness is the level at which decisions from academic planning unit meet set targets especially as perceived through the sufficiency of student infrastructure as classroom adequacy, office accommodation comfort, suitability of lectures and lecturers, counseling services and satisfaction with academic programmes by recipients and stakeholders. The study used students, lecturers and staff perceptions to measure effectiveness of academic planning in universities.

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CHAPTER TWO
LITERATURE REVIEW

The review of related literature in this study is guided and discussed under the sub headings outlined below:

(1) Managing Information Through its Generation for Academic Planning Effectiveness in Nigerian Universities.

(2) Managing Information Through its Availability for Academic Planning Effectiveness in Nigerian Universities

(3) Managing Information Through its Utilisation for Academic Planning Effectiveness in Nigerian Universities.

(4) Overview of Academic Planning and its Effectiveness in Nigerian Universities.

(5) Information Management Policy Evolution and the Influence of Modern Information Communication Technology (ICT) Utilisation for Education/Academic Planning Effectiveness in Nigerian Universities.

(6) Appraisal of Reviewed Literature.

(7) Theoretical Framework/Model

(8) Conceptual Model

2.1 Managing Information Through its Generation for Academic Planning Effectiveness in Nigerian Universities

Information means different things to different people depending on their goals for information. The definition of information as reviewed in literature shows that scholars have a common consensus on the concept of information though no uniform definition. They agree that information is an organisational resource capable of transforming any endeavour through the creation of knowledge and awareness (Aiyekpeku, 1978, Nwankwo, 1985, Anderson, 1972 & Okonjo, 2000). Information strengthens its possessor to an advantage over contending competitors in all endeavours. Information serves as a good resource for efficient organisational management since it assist managers in all organisation to adopt efficient management styles that impacts positively on organisational decisions (Opeke, 1984 and 1996). Similarly, Norton (1990) explained that information is the basis for

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everything a person does. Information that is often described as a power source according to UNESO (1979) cited in Nwankwo, (1985:11) is described as;

> *...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)

Other scholars in information management as Hogarth, Markridakis (1981) and Bowman (1963) are of the view that consistency in managerial decision making and success in organisational practices is a function of the level of information available to managers. The assertion of Hogarth et al (1981) and Bowman (1963) was further corroborated by Nwankwo (1985). Their positions implied that there is need for organisational efficiency in management of information. Also, the value of information is well captured in the works of Grimshaw (1995) and Owens (1997). Gimshaw (1995) and Owens (1997) explained that the value of information is a major determinant of organisational performance since it has suddenly been realised that profit and loss have suddenly become a function of much of information or lack of information. The aforesaid is an indication that one of the determinants of the levels of information required by an organisation is the level of uncertainty experienced in that organisation (Aiyekpeku, 1978).

Information is often obtained from various sources (Igbeka, 2000). Sources of information are primary, secondary or tertiary. Primary information considered most reliable is often generated by the organizational while secondary information is generated from places outside the organisation though useful or is adopted to suit the need of a user. Tertiary information has passed through several stages before being adopted or adapted by users. The case of secondary and tertiary information results in estimations, projections false and unreliable data where there integrity (reliability and accuracy) are not ascertained.

There are various types of information generated in organisations; some of those generated information are relevant while others are considered irrelevant depending on the level of managerial operations being embarked upon by the user. The bulk of information impacting on a manager or organisation could be so heavy

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that such organisation needs to manage its information resource to determine what is relevant or irrelevant information (Nwankwo, 1985). The foregoing factors make educational managers advocate for good and efficient management information systems.

In the last few years, Nigerian universities have being growing and becoming complex in administration. The Nigerian university system requires good and efficient Management Information Systems (MIS). The number of universities has grown from forty four (44) public universities in 1999 to one hundred and seventeen (117) licensed universities (public and private) in 2011 (Mbat, 1992 and UTME, 2011). The implication of the above statement is that efficient management of information should be embarked upon at the micro and macro levels in university management and governance to close gaps created by poor information between goals, expectations and achievements of such goals by universities administrators and expectations of stakeholders.

Useful information must posses certain qualities as agreed by Mondy (1990), Plunkett and Attner (1994), Hodge (1996) and Griffin (1993). Useful information must be in understandable formats, reliable, accurate, relevant, complete, timely and accessible. Nigerian universities as large complex organisations must learn to value information since decisions involve taking a choice among several alternatives and it is clear that management, planning and administration are all about decisions (Nwankwo, 1981). In recent years, stakeholders have expressed dissatisfaction with university education (Akerele, 2008) and Jaiyeoba and Atanda (2010). This study investigated management of information generation looking at its capacities from the perspectives of Directors of Academic Planning, Directors of ICTs and students in Nigerian universities.

Information generation capacities constitute methods used in creating information. It is observed that most times the generator of information may not be the user, in essence, information may be generated by any person in the universities but what capacity does the system hold for such generators?

For any information to be available, understandable, relevant, accurate, timely and accessible, such information must have been generated. In a study on information, Obayi (2006) citing United Nations Educational Scientific and Cultural Organisation (UNESCO, 1990) observed that information is generated through structured processing and refinement of data. In essence, it is not the quantity of information but

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the quality of information since it must have been presented in useable perspectives capable of being reused if the need arises - flexibility. Onocha & Okpala (1995) observed in another study that sought to find out ways to generate items in educational research that items generated must include components of the total item from which items are to be generated indicating that, to generate information, the seeker or generator must be able to identify the item of information required by the organisation and the usefulness of such items. The generator must be equipped with the capacity to carry out the task and in this case the value of information is priceless due to its importance. Gordon and Lindsay (1988), Flores and Salaun (2001) argued that organisations must go the extra mile to purchase useful information hence Durotoye (2003), explained that the usefulness of information requires that organisations combine their management information systems, corporate goals and strategies to arrive at pre-determined objectives.

In the process of generating information in universities, university functionaries must be equipped in the generation and production of either information or the structures for gathering such information by the various stakeholders in the system. Information generated or gathered could be in the form of (admission forms, registration forms, accounting data, administrative processes, teaching materials, students hostel accommodation, students academic counseling etc) presented and preserved in formats for users over time.

Some infrastructures are required to generate information as generated information must be processed for easy storage and retrieval. To process and retrieve information, an organisation like the universities must posses good and viable Management Information System (MIS) either manual or electronic but preferably in this digital era, electronic system (Isah and Ayeni, 2010). Most Nigerian universities lack the capacity especially funds and personnel to acquire the electronic MIS hence decisions may not be as perfect as expected including the generation capacity to get to such information (Ali, 2009).

Ewart (2004) described ‘capacity’ whether in information or any other endeavour to involve equipment for acquiring, capturing and processing information hence it could safely be said that information generation capacity involves all methods, equipment and paper work that will assist the organisation to capture and process information. In the universities academic planning system, information generation capacity refers to the several abilities of stakeholders - Directors, lecturers

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and students to bring up relevant materials that can assist the planners in the system with sufficient data that can be processed to impact positively on academic planning process.

Information generation involves the ability of Nigerian universities to acquire state of the art equipment in information communication technology to enable storage, dissemination and utilization of information. Scholars in the field of information studies as Fickle (1997), Hicks (2007) Steener (1969) Muscon (1988), Rogers (1995) and Neeway (1982), all agreed in their studies that information assists managers to plan, direct the affairs of organisations through generating, processing, storing and retrievals. The above mentioned scholars advocated need for trained personnel in information studies to serve as administrators in charge of information. To achieve this, there is need to train staff on the use of information generation, gathering and processing. This study unveiled present situation concerning training on information generation for Directors, academic staff and students to impact on academic planning effectiveness in Nigerian universities.

In the present global information/digital dispensation, competition has become the keyword and methods of educational planning have been advancing, getting more complex hence the previous method for information generation and processing, storage and retrieval that were manual several years ago and did not yield required results are now to give way to better methods in the 21st century (Marttey, 2005) and Kock (2001). The benefits of information generation are many, Hubbard (2003), Maiguigan, Mayer, & Harris (2005) and Nwankwo (1985) explained that good information generation capacity reduces cost of programmes, increases productivity and provides solutions in complex organisations due to the often availability of sufficient and reliable information. It can be safe to infer here that well generated information reduces the stress managers go through to get solutions particularly in decision making which is the soul of management (Khatz and Khan, 2006). Nigerian universities stand the option of being strategically repositioned with academic planning becoming effective through generating reliable information.

While the process of information generation has been discussed, ascertaining the integrity of the generated information is another concept. The integrity of information includes its reliability, accuracy etc. The field of educational planning is replete with several definitions of the concept of planning. Planning whether micro or macro is only separated in application as its principles are transorganisational. Blaug

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(1970), Nwankwo, (1981), Akangbou (1985) and Longe (2003) all agreed that educational planning has to do with present actions in education that have future consequences on education. The above description also applies to academic planning. Academic planning involves actions in the academic planning process in universities today that have future consequences.

The sustainability of any planning venture whether educational or academic in universities is directly related to the vision and mission of its planners and managers. While educational planning is a broad sectoral concept, academic planning is a subset of the general educational planning concept. However, educational planning cannot succeed in any country without the provision of adequate resources for programme execution.

The concept of information comes in when facts are needed in educational or academic planning as it is agreed that any form of planning must be based on facts, information or data (Wonnacourt and Wonnacourt, 1977). To get resources for academic and educational planning, the resources must be planned.

Among steps to be adopted in planning for education is to assess the capacity of information and the quantity of information that can be obtained for a particular endeavour. The quality and quantity of such information must always be ascertained hence this study concentrates on information generation and its capacity in educational planning and academic planning. It has been observed that planners hardly have the capacity to generate information (Nwankwo, 1985), Adimorah (1993) and FRN (1960). It appears that the capacity for good information is lacking in Nigeria and one area identified for the failure of education planning in Nigeria is poor information infrastructure.

The perennial problem associated with information and data problems in Nigeria over the years can best be captured from failed educational policies of the past for example, the free education programme embarked upon for five states in Nigeria by the Unity Party of Nigeria (UPN) between 1979 and 1983 and the Federal Military Government's (FMG) sponsored Universal Primary Education (UPE) programme of 1976 - 1979. Akangbou (1985), reported that the inadequacy and paucity of information (statistical data) was responsible for the collapse of those programmes. The same report indicated that all projections concerning those programmes were wrong and in some cases, projections were manipulated to the available resources giving the notion that adequate educational planning had been carried out but such

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self deceit only retarded progress in the programmes for a few years and collapsed when resources were no longer commensurate with demand.

Another case in point was the failure of the first post independence educational planning programme in Nigeria popularly referred to as the Ashby commission. It is a well know fact in educational planning in Nigeria that the cause of failure of the programme was due to the adoption of the Harbinson rule of the thumb principle (Akangbou, 1985) and Fabunmi (2004).

To ascertain the adequacy of generated information, a question must be asked and that is, how do we ascertain and measure the volume of generated information in universities or elsewhere? Hubbard (2003), explained that in the field of engineering, engineers measure electricity generation capacity in Kilowatts; in the field of agriculture, animal energy requirements are measured in calories; other weights and volumes have specific units of measurement and it is evident that almost all phenomenon can be measured. Such measures enable quantitative planning to take place hence in this study; the level of information generation that can facilitate academic planning could be established with a view to stabilising educational plans at university levels in Nigeria.

Previous studies on information management did not investigate the method or mode of methods of information. They investigated information capacity acquisitions. This study for the first time has adopted the use of simple descriptive statistics as percentages to measure the level of information generated in the universities specially from the perspective of stakeholders; students, lecturers and directors of academic planning and Information Communication Technology Centres (ICTC) that deal directly with raw data, its processing and in most cases, its utilsation.

2.1.1 **Generation of Information in Nigerian Universities**

The growing complexities in education require provision of regular information. Universities in Nigeria have grown complex in structure and programmes for example, Nigeria currently has one hundred and seventeen (117) licenced functioning universities with thirty owned by the Federal Government and thirty six by state governments. Others are owned by the private sector (Unified Tertiary Matriculation Examination UTME, 2011).

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The sudden growth in the number of universities in recent years require that information for academic planning purposes are not only properly generated but adequate. Information that is not generated cannot be utilised. Reasons why good information generation is necessary in universities include: Educational institutions specially universities generate heavy information through the huge amounts of data and information they possess via correspondences, accounting documents, personnel files, students examination records, time tables, accommodation, admission and graduation records etc. Most of such records are yet to be properly organised into formats that are usable and reusable (McLeod Jr. 1995) Clare & Stanley (1995) and Ewart (2004).

Again, education and academic planning require data for the purpose of generating time series data as obtains in advanced countries of the world. Such data enhances the integrity of statistical forecasts and prevents educational plans from collapsing mid-way into any programme as often experienced in Nigeria in the past.

Generating and accessibility to information is of necessity as such data will assist planners to evaluate the adequacy of input and output into the university system. It will enable academic planners assess statements by stakeholders for example to just say ‘ the standard of education is falling’ will not be as controversial as it is today but will be put to test (Olopoenia, 2006) and Falola (2009).

Information could be described as adequate when it meets the goals and objectives of what it is expected to do. Information availability in universities enables educational planners/academic planning units in universities retrospect to challenges and prepare adequate budgetary controls with internal policies to complement national educational policies by ensuring compliance to international standards. It must be made known that the controversial perception of fall in quality of education could be attributed to poor information or unwillingness of university administrators to comply with laid down polices, for example, Okojie (2007) decried the violation, abuse and over stretching of university carrying capacities policy in admissions in strong defiance to the directives of the National Universities Commission (NUC).

The NUC Executive secretary wondered if such administrators were ignorant of the quota allocations to their universities or what could have happened? In instances cited by the NUC executive secretary, the NUC bluntly accused university administrators of with holding timely internal information from the universities which could be due to the fact that such information could not be readily retrieved, not

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available or were not processed and so were not available at the time of admissions. The implication could be that the capacity was not acquired. It could also be that most of those institutions were still operating the manual MIS or occasionally interchanging both the Manual and the electronic MIS. In a situation where a university does not stick to one method, documents will be missing in transit. Also, improper records management will occur and the incidence under reference here occurred when the NUC was working on collecting data for long term planning in Nigerian universities.

To the above scenario some Nigerian scholars like Okhiria (2007) decried the gap in educational quality between graduates from Nigerian universities and their counter parts from other parts of the world. Okhiria (2007) attributed the difference in the solid information structures and infrastructure that existed in places outside Nigeria as Harvard, Yale, Cambridge and Oxford universities among others too many to mention.

Nigeria as a nation had realised the importance of information and taken steps in that direction several years ago especially making information available to seekers and users but unfortunately, such steps yielded little results. The need for information management made the Federal Government of Nigeria (FGN) set up the Federal Office of Statistics (FOS) by an Act of parliament in 1962, the Nigeria Institute for Social and Economic Research by Decree 1 No 1 of 1994 and the Nigerian manpower planning Board. Though these organisations are there, the challenges remain because resources voted by government for the purpose of information are either unutilised or not just enough.

Poor (1990), lends advocacy to the need for organisations to keep adequate and updated information regularly as it forms the basis for resources allocation which also applies to Nigerian universities. Planning without information is directly related to planning for failure particularly in an aspect as educational/academic planning and administration. Planning can automatically translate to success in other areas because of ability to forecast (Nabe, 1974). The foregoing are reasons why schools and university administrations need to update their information generation and capacity to continue to remain relevant, updated and useful.

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2.2 Managing Information Through its Availability for Academic Planning Effectiveness in Nigerian Universities

The preceding discourse infered that information is a core ingredient to academic planning effectiveness especially at the university level. Katz and Khan (2006), described academic planning as the soul of any university since removing it is like removing the life wire of that institution. Availability of information contributes to a large extent to effective university governance in the 21st century as observed from the ranking of universities globally by Isah and Ayeni (2010). Akerele (2008) also observed that some factors account for good quality products from universities and one of such factors is the availability of information. Quality is a core ingredient in university education as deposed to by Jaiyeoba and Atanda (2010). To arrive at good quality in academic planning, information must not only be perceived to be available but must actually be available.

Several scholars have emphasised the need for information availability to assist effectiveness in any endeavour for example, Sivert (1996) emphasised the need for corporate information and availability of information to meet the challenges of managing in this information age. Sivert (1996) identified strategy, internet, technology potentials as core ingredients that assist information availability. Further to this, Igbeka (2001) identified sources of information to include secondary, primary and tertiary sources but other scholars as Neeway (1982) identified sources to include; books in libraries, law and policy, microfilm and microform, bibliographies etc. Other sources identified include indexing and abstracting sources, databases, dictionaries, encyclopedias, directories, reference materials, web based reference sources while Alabi (2006) identified the use of search engines, journal resources, handbooks, manuals, digital collections and monographs. This research agrees that a good aspect to information availability is to have information capacity and the wherewithal to generate information but what then is information capacity? It involves the equipment and mechanisms to ensure that information gets to those who need and use them especially at the right time.

Availability of information is subject to information generated. A generated information that is not stored or properly kept is as if such information was never generated and hence not available. Not all generated information can be said to be available. Availability is subject to storage and retrieval when needed. Availability is

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subject to capacity acquisitions. From the works of scholars reviewed, information availability can be said to be .in place when necessary capacity to access such information has been acquired, is available, maintained and regularly functional. In the works of Alabi (2006), facilities that can aid information availability include search engines, web based information that is capable of reaching a wide array of population (students) in no distant time. The information age in which Nigerian universities operate has limited opportunities for manual information management systems as time taken to search out documents will negate the value of the information being sought (Nwankwo, 1985).

Availability of information is such that after the use of information, it is possible to reuse it since it will be possible to retrieve it hence the use of the term 'capacity'. There must be in built mechanisms that enable the use and reuse of information in such a way that the information does not loose meaning or impact. Information is said to be available when it is used in several formats. The study of Barnes (1966), showed why the Americans decided to adopt the electronic MIS. Among the issues considered was the cost effectiveness of electronic MIS relative to its manual counterpart. In Nigeria and in most Nigerian universities, buck passing and blames are often the case when failures are recorded during trial sessions to new innovations especially when it involves new technologies.

Information availability in Nigeria is not said to be without its challenges for example, Adimorrah (1993), argued that information structures in Nigeria are lacking and inadequate. Babalola (2010), laid credence to this as he observed that due to high cost and poor technology, access and utilization, improved ICT facilities are lacking among Africans and African universities.

The foregoing indicates that where generation of information capacity is high and capacity to make such information available is low, there will of necessity be inefficiency in the system. Babu, Singh and Sachdeva (1997), agreed that information availability and accuracy will go a long way in improving efficiency in organisations and by extension include universities.

In Nigeria today, most universities have began to advance processes of improving on information availability especially in the last decade. A comparison of information systems today with what obtained in the past shows that there are some improvements in some areas but how these impact on academic planning is yet to be seen. Most universities have phased out the use of manual typewriters and

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cyclostyling machines are no longer seen anywhere. Again, most information are now gotten online indicating that many of the universities have websites but the effectiveness of these websites and information availability can only be ascertained after this study has been completed.

2.3 Managing Information Through its Utilisation for Academic Planning Effectiveness in Nigerian Universities

Organisations to day require different types of information for different purposes towards achieving their goals and objectives. In the information age organisations anticipate increased productivity, increased earnings and shares of market indices. Organisations are able to predict growth, projections and enhancement of corporate best practices (Nwankwo, 1985) and Onuma (2007). Information needs of organisations vary hence high levels of operations are required in modern educational/academic planning settings due to competition within educational systems and levels in educational quality and production (Jimminez, 1988), Babalola, Tayo, Okediran, Arikewuyo, Ayeni and Adedeji (2006).

Organisations that are not properly informed will find themselves in the refuse bin of obosolence soon either locally or internationally. Provision of quality education is becoming an issue of global concern due to recent researches in the field of information, communications and technology etc. Governments and proprietors of schools therefore, need to be well informed. Education in developing countries is no more the exclusive preserve of governments to supply. Privatization, commercialization and globalization of organisations has ushered in competitive supply of goods and services including education (Ewart, Isah & Fabunmi, 2008). It can easily be perceived by interested parties that providers of public education need to be more informed as we progress into the 21st century. This study is of the opinion that conscious effort must be put in place to improve on the generation, availability, utilisation and academic effectiveness of universities in Nigeria.

Organisations take decisions regularly that are bound by the level of information available to them. Babu, Singh & Sachdeva (1997) opine that information availability, accuracy and dependability will go a long way to improve on the utilisation of available information by organisations and consequently influence their efficiency positively. Babu et al (1997) observed that the discovery of the internet

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coupled with the fact that it performs the duty of a super highway for information both in storage, retrieval and dissemination goes a long way in making information available, accessible and effectively utilised by those in need of information. Universities as modern complex organisations take decisions from time to time (Nwankwo, 1985). The level of information needed in any organisation like a university cannot be pinned down to one specific purpose as managers of information requirements vary in scope and depth. The level of information needed by the Vice Chancellor of a university will vary from the information needed by a lecturer, director or senior non academic staff. While the Vice Chancellor (VC) talks and works on policy, the average lecturer is more operational in scope and content (administrative). Information must be presented in a way that preserves it for easy retrieval, adaptability, flexibility and maintains its accuracy. It must be presented in understandable formats.

The growing complexities mentioned above in institutional management give reasons why scholars over the years advocated for effective management information systems (MIS) in higher institutions (Nwankwo, 1985) Ekwere (1990), Lundu and Mbewe (1993) Johnson (2007) and Adekanbi (2008). Effective Management Information Systems (MIS) examines the method of information gathering, storage, display, retrieval and utilization. It also looks at accessibility of information and ways in which information can be managed.

Universities management and governance in Nigeria at micro level has been increasing. From less than forty six (46) in 1999 to one hundred and seventeen (117) in 2011 (UTME, 2011). Universities vary in mission and scope hence each university does not have exactly the same characteristics as another university and even when every other thing look similar, the type, nature and character as social outlook of the individuals in the system vary. In the case of others despite being under same regulatory body, there is need to study levels of differences and similarities to be able to draw valid inferences and reposition them.

The complexities associated with university management and governance can be appreciated at the micro levels when we take individual universities and at the macro level, when we take the totality of universities, and in that sense we refer to the system. It is difficult for an administrator to effectively oversee all institutions in any system at micro or micro levels using manual information systems or unreliable electronic information systems. For information to be available for utilisation certain

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qualities must be involved and these include; networking, retrieval and storage (databases).

Arising from the foregoing literature review, proponents of MIS in tertiary education explain that varied, complex and diverse documents impact the university system in the form of information in papers, memos, films and some other forms of subscripts that need to be kept, used and reused later in the process of management and administration that have proved very difficult to see and use over and over again. Moreover, the manual MIS exposes such documents to vagaries of weather and other hazards. Barnes (1966), while working on the factors that require the use of electronic management of information in America, observed that; the size of the mass of documentation as well as the increasing nature of such document sizes makes it necessary to find ways to reduce documentation costs, increase the speed of transformation of information as well as reduce the amount of clerical and manual effects involved. According to Barnes (1966) study, he explained that the volume of information generated in organisations and higher institutions are very heavy and so need some reason able level of management. In Barnes (1966) work it was observed that the American government alone produced twenty five billion (25b) pieces of paper information annually and went further to observe that the USA military engineering section alone in the production of research reports, manuals and drawings, expended as much as two billion dollars ($2b) in a year. Barnes (1966), observed that approximately 30,000 technical journals are published in more than 2,000,000 articles in a year in over fifty (50) languages. This frightening volume of information in the US made all stakeholders inclusive of the government of the US to think of more efficient ways of managing information. The problem of Barnes and the US in 1966 is probably facing all sections of the universities in Nigeria today and requires that information be managed for effective policy implementation.

Managing information in organisations requires that certain factors be put in place specifically in organisation as complex, diverse and dynamic as universities. Klara (2001) and Kock (2000), opine that it is not too much the volume of information needed but the availability of such information when needed. Barnes (1966), Kock (2000) and Klara (2001) explained that to manage information efficiently, information must be sifted to show content of subject whether electronic modeling (computer), role of visuality and the possibility of rewiring quick and authentic information. Several authors agree that information is a necessity. Abels,

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Liebescher and Denman (1996), further explains that several other components must accompany a good MIS in universities. Components recommended include; addition of a good institutional electronic network system and an electronic database system. To fully understand the educational implication of the foregoing twin concepts, it will be necessary to understand the technical and logical functions/compositions of electronic networks and database system in modern complex organisations as universities that can influence data storage, retrieval, management and utilisation.

Electronic network

The Encarta Premium (2009) identifies over sixty nine different networks associated with computing and information management. It describes a network as a series of connections and interconnectivity. An electronic network involves the connections of computers in such a way that they can communicate with one another and share resources as printers and storage space in similar environments or in different environments that have been conditioned to perform in a sequential manner (Oni, 2004). The greatest electronic network available to humanity today is the internet with its sophistication and complexity of resource sharing and usages.

Networking ensures cost effectiveness and enhances team work, research enhancement and communication. In the twenty first century, universities cannot afford to overlook the global electronic network through the construction and utilisation of electronic web portals and websites (Isah, 2007).

Electronic database

There are manual as well as electronic databases. O'brien (1998) described a database as an integrated collection of logically related records or files. The study explained that a data base consolidates records previously stored in separate files into a common pool of data records that provides data for many applications. A database is a storage system that permits retrieval of information on request (Sivert, 1996). Many types of database abound as identified by O'brien (1998), and include: operational database, analytical database, data warehouse, distributed database, end user database and external relations database etc.

Databases are important to educational institutions whose activities need constant review and repetitions. In the case of university academic planning sections,

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several aspects of the universities planning mechanisms emanating from the academic planning section are often repeated either as finished or repeated tasks requiring constant revisiting, referencing and updating of previous materials for new assignments in similar tasks or circumstances and in such cases retrieval and utilisation of previous material is necessary.

Adensanya, Onilude and Sodipe (2004), explained the importance of database and databanks as modern ways of storing and retrieving information with the aid of electronic devices. Adesanya et al (2004), said that the purpose of creating database/databanks is to make available through one source, a comprehensive and almost inexhaustive assemblage of information on any given subject area. To fully operate a database/databank Adesanya et al (2004) explained that such project must have an objective, a design, a plan and stages of implementation. It is important to ascertain if organisations as large and complex as Nigerian universities have databases or electronic databanks individually or collectively from which information could be retrieved as it will greatly assist the utilisation of such information and consequently impact positively on academic planning effectiveness to reposition them among similar institutions globally.

Databases and Networks

In the growing literature on database, the web definition goes thus;

> …A data base is a large amount of data stored in a well organized manner" while a database management system (DBMS) is a programme that allows access to the information stored … a large electronic record of a set of data, consisting of at least one file or a group of integrated files usually stored in one location and made available to several uses and users at the same time for some or different applications… (http://www.efa.gov.records/glass.glass 03.htm).

Dimers (1999) and Bernhardsen (2000) described database as a collection of data fields and files to a single storage system from where information can be retrieved when required. Kerschberg (1999) Ram, Stephen et al (1989), Aranhan, Ganti, Narayanan, Muthukrisna, Prasad and Ramamrithan (1996) explained that data

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is a corporate resource which must be managed through the production of good database system. To establish a good database, it must be subject to planning. Advantages of a database according to Aver, Hall and Leilict (1981), is that it reduces real time search for information especially for complex organisations. Ram, Stephen & Curran (1989), further explained that database planning is a process of identifying current and future information requirement of an organisation in order to transform them into a homogeneous description of the application. To effectively do this, there must first be a model and then a design. The model may be a hierarchical model, network or a relational Model. The design should of necessity involve; storage and physical structures, indexing, transactions and concurrency, replication, architecture, security and locking devices.

It is to be understood that databases often move across networks. Networks can simply be classed into 2 and both are of extreme importance not only for academic planning effectiveness but for the general and effective functioning of an organisation such as a university system in this globalised 21st century. One of the commonest networks is the Local Area Network (LAN) and the second is the Wide Area Network (WAN). In both networks, resources can be shared in different capacities. LAN operates within an organisation while WAN involves external influences (internet operations). Both are electronic networks that have resources as the chat, email, teleconferencing, sharing printers, storage spaces and maintenance of spaces etc

2.3.1 **Information Utilisation Capacities in Organisations**

The purpose of generating information is to utilise such information (Dillon & Backhouse, 2000). To effectively utilise information in organisational management and administration, it must be available, flexible, accessible and adequate for the purpose for which it is intended (Aiyepeku, 1993), Nwankwo (1985) and Madu (2001). It is only when information conveys the above qualities that it is usable and leads to right choices and decisions in organisational management (Love, 1985) Ekwere (1990) and Ajayi (1986).

The first step in determining the level of utilisation needs in any organisation is to identify the source of such needs, then identify the best technology that will assist the end user to access needs (Kirang, 1981). Christiano (1981) explained that

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capacity utilisation measures the intensity with which firms or organisations make use of their resources that includes information that aids academic planning to achieve its objectives.

It can be safely inferred from the works of Christiano (1981) that information utilisation capacity refers to the intensity with which firms and organisations make use of information. In essence, it involves such capabilities as tools, instruments, equipment, knowledge etc that could aid university academic planning units make use of the information available to them for effectiveness. In previous studies on information management, such tools, equipment, resources for capacity build up were referred to as 'Acquisitions'. Important aspects of this research finding will involve the use of electronic information processing equipment acquisitions that universities in Nigeria currently have or do not have. This study will is set to unveil the level/status of such equipment available to Nigerian universities at the levels of directors of academic planning, university information technology centres, lecturers and students and their ability to access these equipments where available.

Measurement of information utilisation capacities is subject to several measurements of capacities in the literature but this research intends to measure information capacity utilisation using measures of distributions and measures of central tendency due to some weaknesses identified in earlier measures of capacity utilisation. (Christiano, 1981) was able to identify the Wharton Econometric Forecasting Associates (WEFA) model which uses trends through peaks to measure the intensity of capacity utilisation in industries That method could be used in information capacity utilisation or other organisations but the method had its own short comings as it deals specifically with tangible objects unlike in education that deals with services and other items considered intangible (Akangbou, 1985). Secondly, data based method was also identified using the Cobb Douglas production function but the following short comings were observed in them; the extreme dependence on data which when used in survey research designs are difficult to establish their levels of reliability since it is applicable to long run relationships between input and output and in a situation where time series data is not available, leads to error of judgment.

Information is an important resource in education whose utility cannot be over emphasized hence as the generation rate is being discussed, its utilisation needs and

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rates must be established to aid educational and academic planning. Siber (1974) listed ten reasons why educators utilise information and they include:

(i) ascribing legitimacy to on going activities,

(ii) wining any counter argument with empirical evidence,

(iii) satisfying intellectual curiosity

(iv) avoid unethical practices through trial and error and manipulation

(v) increasing awareness of barriers, pitfalls and challenges to any particular course of action

(vi) keeping current with trends in education,

(vii) learning about college courses,

(viii) learning about activities in research and development,

(ix) achieving conceptual clarity regarding one's activities and

(x) being inspired to higher levels of synergy and commitment.

Other scholars are of the opinion that certain factors influence the utilisation of any resource and in essence information. David (1959) and Nwankwo (1985), listed the factors and they include;

(i) demand for the resource

(ii) supply of the resource

(iii) Technology and

(iv) Quality of personnel

To adequately examine organisational requirements of information needs in Nigerian universities, this study examined the rate of information demand and supply and channels through which information gets to the ultimate user. The study further examined the available technology and the quality of personnel at each level of information and planning. Information needs in Nigerian universities could be more appreciated when the level of information deficiency is understood. Scholars in the literature have not been able to define accurately the level of information needs in the university system but it is clear that there is information deficiency. The works of Nwankwo (1982), Adimorah (1993), Okojie (2007), Ekwere (1990) and Erwat (2004) pointed out levels and causes of information deficiency to include; inadequate infrastructure for gathering, collating and processing information capable of causing exceeding approved limits of university carrying capacities and policy quotas (Ojedele and Ilusanya, 2006). It is noted that when such limits are exceeded and communications made with those it concerns, there is absence of technology and will

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power to correct the anomalies since the information communication technologies being used are outdated and inappropriate (Babalola,2009 and Babalola, 2010).

Abels, Leibescher and Denman (1997) attest to the fact that the greatest asset to information availability is personnel. Rogers (1995) is of the opinion that the society in which a person or organisation interacts influences to a great extent his behaviour towards any object hence the submission by Okhiria (2007), that Nigerian undergraduates need major exposure to IT training and consciousness to be able to compete favourably with their counterparts from other developed countries of the world.

To overcome the challenge identified by Okhiria (2007), the extent of IT training to undergraduates in Nigerian universities will be under taken in this study while the capacity of Nigerian university lecturers will also be measured. This study investigated facilities that have been put in place to train these army of personnel resources that will man industries and organisations in the very near future. This will to a large extent unveil the levels of utilisation of available management of information infrastructure as generated by stakeholders of the academic community and the preparedness of Nigerian university graduates for the challenges in the new millennium.

2.4 Overview of Academic Planning Effectiveness in Nigerian Universities

Soyibo (1985), writing on academic planning in universities, described it as the coordination of a university's manpower planning system and planning for its physical development. The process of academic planning according to Soyibo (1985) involves meeting requests made to the academic planning unit for either personnel or physical development. The academic planning department evaluates requests from the various departments, faculties and units in the university on the basis of the following factors; ensuring that university policy decisions do not conflict with national objectives through the National Universities Commission or the university's Governing Council on same subject, aligning requests in line with national development and planning goals of the university for the period being considered, performance of the units making request to enable academic planning assess if the requesting department /faculty qualifies for the request it is making, ensuring if funds have been earmarked for the project and whether such funds are ready.

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It is clear that the mandate of the academic planning unit of any university is enormous. The academic planning unit has the responsibility of first getting information on a subject from within and outside the university to fully prepare for the extension of such policy. Again, the academic planning office of any university must be conversant with faculties and departments through the collection, collation and evaluating data needs from time to time. In the present dispensation under globalization, the academic planning office must be conversant with global trends in educational planning (Brodjonegoro, 2000) and Marttey (2005). The implication is that the academic planning unit of any university must be very proficient in information gathering, collation and information dissemination.

With academic planning office ensuring strict compliance with policy through monitoring and recommendations in the universities, it stands in a vantage position to guide, influence and carry the university senate along with its administration in enforcing university best practices by ensuring that the recommended student/teacher ratio is maintained, ensuring compliance to recommended admission quota and carrying capacity by the National Universities Commission. The enormity of the functions of the academic planning unit becomes more visible when viewed in the light of the annual and growing national demand for education which has never been satisfied. In Nigeria, only 12% of annual admission seekers gain admission into licensed and operating universities (both public and private). It is suspected that the low admission rate in the midst of a vast array of qualified candidates places tough pressures on university administrators in times of undergraduate admissions (Ewart, Isah & Fabunmi, 2008). The foregoing spelt out the functions of academic planning units/departments in universities but what is the importance of planning academics in the present dispensation? The importance of planning academic among other things in the new dispensation include;

(i) To meet the rising global changes associated with educational planning and societal expectations from universities, closing the widening gap between developed, emerging and developing nations that require consistent updating of the academic planning section of every university to bridge such gaps as measures which hitherto had proved unsuccessful are being globally reviewed to pave way for new and better methods of doing things (CODESRIA, 2004) therefore academic planning must not be static.

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(ii) The constant challenges that face academic development in the third world makes it imperative for academic planning to be dynamic and effective, for example the rise in information utilisation mechanisms (the digital age, globalization etc) (Babalola and Jaiyeoba, 2008). Furthermore, the constant problems arising from poor funding of the universities require planning , replanning especially when university request for funds fall short of both approved and released funds (Ewart, Isah and Fabunmi; 2008).

(iii) The complex nature of the academic environment require regular and pro-active planning for example, the financial requirement by different sections of the university, community varies. The financial requirements in the fields of Science, Engineering, Medicine, Agriculture that are technological, Human Medicine and the natural sciences have needs to build, equip, maintain and sustain laboratories to which the academic planning section must ensure a balance according to need and in line with national policy. Therefore, the section obviously needs updated information regularly.

Though accepted that academic planning section needs information, Igbeka (2001) looked at the various sources from which an organisation could source information. The study categorized information sources into 2 namely; internal and external sources. Internal sources involve sources within the university at large while external sources include those outside the confines of the universities as well as those associated with allied institutions capable of being sourced via the internet. A question then is are academic planning sections of Nigerian universities equipped enough to meet with the exigencies of modern governance and planning for a productive human resource base for our economies in this century? How effective is academic planning in the universities?

Anderson (2004) described the term effectiveness as the extent of goal attainment in any endeavour. He further explained that to evidence effectiveness, the operator must manifest; information seeking initiative, flexibility, accountability and access to information. The middle states commission review report in the USA (2004) while looking at the issue of educational effectiveness in the USA, explained that the concept of educational effectiveness can only be assessed when certain questions are answered for example, is the institution fulfilling its mission statement and achieving its goals, how coordinated are the programmes and resources of the organisation? The university of Toronto also described effectiveness to mean an assessment of strength,

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weaknesses and opportunities in any environment to enable that organisation reposition. This research observes from the literature that effectiveness could infer and imply, the intensity or extent to which goals and targets are fulfilled through continuous usage and in this particular instance, academic planning using information generation, availability and its utilisation capacities.

In the process of ascertaining the effectiveness of academic planning in their universities, some world grade universities as Massachusetts, Wisconsin, Murdock and Toronto in the United States of America developed tools for assessing academic planning in their institutions. These instruments are questionnaires developed by the university academic planning sections for undergraduate programmes at 100 and 400 levels respectively measuring certain variables in students at point of entry and points of exit. These tools enable the university measure its level of impact and its academic planning effectiveness. Areas where the universities were emphatic on academic planning effectiveness included; Teacher/pupil ratios and class sizes, accommodation and lecture equipment both for lecturers and students including hostel and office accommodation, access to internet facilities, transportation and student counseling services. This study though adopted these indices, it further added and measurement variables in Nigerian universities adapting the instruments used by these universities to information generation, availability and utilisation capacities.

The study of academic planning effectiveness is usually devised where there appear to be growing dissatisfaction among university stakeholders on achievement of its mission statement. Its plans are reviewed taking the usual information apparatus into position such as; inviting faculties and department for curriculum reviews, infrastructural reviews in line with university policy and national objectives in education after obtaining the perception of university planning effectiveness from staff and students organised by academic planning section periodically.

How effective is academic planning in our universities? This question can only be answered in chapter four (4) of this work after analysis. Scholars who worked in this area include (Katz and Khan, 2006). Katz and Khan (2006) described academic planning as a well laid out procedure capable of improving the intricate protection of an individual, a college or university. The University of Toronto (2004) and the University of Wisconsin (2007) agree that academic planning is a chart of direction that takes a person/unit or programme from one level to another in a university environment. Academic planning involves present and future actions of the

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university; it makes choices and sets priorities. Other descriptions and functions of academic planning according to the document is that it sets institutional goals through a study of national and institutional objectives. The document further suggested steps to be adopted in academic planning to include; undertaking a self study/appraisal and carrying out extensive reviews of its own functions in relations to goals, strategies, achievement measurement and correlational contingency plans. The suggested self study programme is designed to enable the department know where it stands that is, its present capabilities in line with its anticipated capabilities. It must be able to produce a description of its academic structure such as its number of faculties, department, present and anticipated staff strength, anticipated budgetary 'cost vis-à-vis internally generated revenue and cost. However, this study is not connected with cost determination, budgetary incidentals though they fall within the purview of academic planning but concentrates on information for academic planning effectiveness.

2.5 Information Management Policy Evolution in Nigeria and the Influence of Information Communication Technology (ICT) to Education/Academic Planning Effectiveness in Universities

Over the years, students and scholars in the field of information studies have known the value of information and thus craved for national policies on information studies and its adoption in Africa together with the adoption of modern information communication technology policy in respective African countries. For example, in Zambia, the formulation and implementation of national information policy was well agitated (Lundu and Mbewe, 1993) but till today, it is doubtful if there is still an information policy in Zambia. Adekanbi, (2008) decried the absence of information communication technology policy among African countries and specifically stated that only five African nations had an ICT policy in place.

Lundu and Mbewe, (1993) described an information policy as 'a guide to the manner in which a nation expects matters on information to be handled. Lundu and Mbewe (1993:24) derived inspiration for the call to formulate national information policy for Zambia from the 1985 UNESCO call to nations through its organ UNSIST which is the region's economic grouping.

The inspiration to cry for a Zambian information policy according to Lundu and Mbewe (1993:25), Igani (1990) came not only from UNESCO/UNISIST but also

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at the regional level where the organisation of African Unity (OAU) now African Union (AU) under the United Nations Economic Commission for Africa (UNECA) created the Pan African Development Information System (PADIS) in the 1980's. PADIS hinged its background Position as follows:

> …the Pan African Development Information System (PADIS) was created in 1980 at the expressed wishes of the African member states, to assist in the development/strengthening of the information and documentation infrastructures of the African member states. The overall objective of PADIS is to establish regional information systems in African which will serve as a conduit for information and data development, centred around national, regional and sub regional networks to which all members will contribute information and share their information management techniques. PADIS is both a system and a network. PADIS network consist of rational, sub regional and… (Lundu and Mbewe, 1993:24)

In the Nigerian context, the need for information has been recognized since independence. The Federal Government of Nigeria (FGN) took the initiative many years ago, for example, the FGN took bold steps in ensuring availability of information through an Act of Parliament in 1962 to establish the Federal Office of Statistics now Federal Bureau of Information; Nigerian Institute for Social and Economic Research (NISER). Arising from the submissions of 'scholars and (PADIS), the Nigerian Universities Commission (NUC) advocated the need for the Computerised Management Information Systems in all Nigerian universities in 1990. The objective of that policy was to usher and introduce Nigerian universities system into the emerging world of computers at that time. With the advent of the internet, the policy had become enlarged with a more national outlook for wider application than the original idea mooted in 1990 by the NUC. In the New National Policy on Information technology, section two as documented by (Nnebe, 2008:47), is presented follows:

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> ….Information Technology (IT) is the bedrock of national survival and development in rapidly changing global environment, and challenges us to device bold and courageous initiatives to address a host of vital social-economic issues such as reliable infrastructure, skilled human resources, open government and other essential issues of capacity building. In addition, an information technology policy built on reliable human resources and infrastructure constitutes the fundamental tool and means of assessing planning, managing development change for achieving sustainable growth".

The vision statement of the IT policy reads; to make Nigeria an IT capable country in Africa and a very key player in the information society by the year 2005, using IT as the engine for sustainable development and global competitiveness. The mission statement of the policy included:

(i) Education

(ii) Creation of wealth

(iii) Poverty Eradication

(iv) Job creation

(v) Global competitiveness

The foregoing showed the position which the policy ascribed to education and by extension higher education (universities) in Nigeria. The document shows in explicit terms that Nigerian does not have an ICT policy but an IT policy which applies to several other African nations. The general objectives of Nigeria's information Technology Policy (NITP) included to:

- Ensure the availability of IT resources to promote efficient and national development.
- To guarantee that the country benefits maximally and contributes meaningfully by providing global solutions to the challenges of the information age.
- To establish and develop IT infrastructure and maximize its use nationwide
- To enhance planning mechanisms and forecasting for the development of local infrastructure.

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- To create IT awareness and ensure universal access in order to promote IT diffusion in all sectors of our national life.
- To create an enabling environment and facilitate private sector (national and multinational) investment in the IT sector.
- To build a mass pool of IT literate manpower using the NYSC, NDE and other platforms as "train the trainer" scheme (TTI) for capacity building.
- To set up advisory standards for education, working practices and industry.

In chapter two, and specifically in page 55, the National Policy on Information Technology (NPIT) intends to:

- Make the use of IT mandatory at all levels of educational institutions through adequate financial provisions for tools and resources.
- Develop relevant IT curricula for primary, secondary and tertiary institutions.
- Establish facilities for electronic distance learning networks and ensure effective internet connectivity which will provide opportunities for educationally disadvantaged areas.
- Encouraging IT companies with appropriate incentives to compel them to invest in education and training through certification for tax rebates through existing government bodies experienced in such matters as the industrial training fund. (ITF) and Centre for Management Development (CMD).

The foregoing are pointers to the fact that the government of Nigeria has over time, understood the need for information and is interested in adopting current trends in ICT though without a policy backing and many today mistake IT for ICT without knowing the difference including some professionals. With this back ground, one may then ask, does ICT have any relevance to educational planning? An obvious answer is yes! and if so how, and why?

In the first instance, educational planning involves a series of actions and procedures today in education that have future consequences (Longe, 2003), Nwankwo, (1981), Nwankwo (1985), Babalola (2003) and Fabunmi (2004). The crux of educational planning involves educational projections and forecasting which are not possible without adequate information, data or statistics. They are not only to be available but must be accurate, flexible, adequate, capable of enabling accurate

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predictions to enhance decision making in organisations and nations (Park, Yeon and Kin, 2006). The foregoing points to the fact that information necessary for academic planning effectiveness should be properly stored in networks and databases for early retrieval.

Furthermore, the educational objectives of nations keep changing in the 21st century. Such changes are not unconnected with social, political and cultural challenges currently facing the world for which solutions are being expected from the university system through competent, research, innovations, creativity and inventions. In the light of the foregoing, universities are under intense challenges to produce results Nwangwu (2009) and Ayeni, Isah, Erwat and Ileuma (2009).

The desire for solutions to conquer the challenges arising from environment/hazards particularly globalization, climate change, food crises etc is in genuine academic planning as these issues form the challenges facing the world in this century. The introduction of dynamism into the planning and making of educational management is designed to keep universities abreast with information needs that cannot be manual but electronic (moving at the speed of light). Should this be so, there must be a pool of both human and material resources from which universities can draw or fetch information hence the urgent need to create information networks and databases.

After a self study assessment by academic planning sections of universities, the next aspect is to look into the goals of academic planning. Goals of academic planning include future expectations that are better accomplished through asking questions and providing solutions to such questions. In their work, several challenges were highlighted which include absence of national information policies, information processing infrastructure, professional personnel to handle information and information awareness institutions.

This study hereby explores the types of information management system that operates in Nigerian universities and their current status? In section 2.2 of this study, the nature of information systems that could be adopted by universities was visited. It was observed that the era of the manual management information systems is fast giving way to the Computerised Management Information Systems (CMIS). It is computerisation than enables ICT. The evolution of the micro computer went a long way to simplify organisational tasks. In modern management and organisations, the manager has no choice as the 21st century known in literary circles as the ‘jet age’

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cannot be manual. The computer has become office equipment (McLeod, Jr, 1985) and Obanya (1999). Previously, the computer was regarded as a product reserved exclusively for a particular class of people but in recent times, such notion has begun to give way even in Nigeria. Most probable reasons why people idolised the computer is not unconnected with the class, models and costs associated with buying and maintaining computers then. Folorunsho (2003) gave the following analysis on the evolution of the computer which we use today and his analysis can explain why the computer and its accessories are always changing and cost rising relative to need use and demand;

The first phase of computers operated between 1550 and 1716. Prominent scientists associated with this phase were; John Napier (1550 - 1617). Napier was a Scottish Mathematician, then Blaise Pascal and Gottfried Von Liebnitz (1646-1716). The main capability of the first phase computers were addition, subtraction, division and multiplication. Second phase computers operated between 1752 - 1954 with popular scientists researching and modernizing its capabilities. Computing moved away from only pure calculation to information processing. Joseph Jacquard (1752-1834) used the punch card and mechanical storage and reading of punch cards. Charles Babbage (1792-1871) introduced the idea of stored programmes, input and output and still used punch cards. Charles Babbage's input, output processing unit that formed the basis of modern computeing was called a MILL. It was not completed in his life time as it took close to a hundred years to perfect. Then came George Boole (1819-1864) know in the computer world as the originator of Boolean algebra that was used to describe and manipulate logical expressions, then came Herman Hollerith (1860-1929). He introduced several aspects to the work of George Boole. His research enabled the computer to be used for the American census of 1890 and later adopted for the use of commercial banks. Finally in the second phase was Allan Turning (1912-1954), he worked assiduously on logical conclusions for the computer.

The third phase of computers proved interesting as it saw the very rapid improvements, developments and transformation of the computer especially in the 20th century. Major break through s recorded at this time were:

- Storage of information in binary codes (not punched cards)
- Logicality and combining binary codes evolved
- Programming languages began to evolve

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- Electrical transistors and devices, cathode ray tubes were discovered.

In 1944, Harvard University in the USA discovered the ASCC (Automatic Sequence Control Calculator). In 1946, the University of Pennsylvania discovered the ENIACC (Electronic Numerator Integrator and Calculator). This machine continued to be modified and in 1949 VON NEUMANN postulated the general requirements for a computer. In 1948, arising from VON NEUMANNS works, F.C. Williams and G.C. Torthill came up with the MARK I. This time, it was a small general purpose machine with input medium as a keyboard and output medium as a Video Display Unit (VDU). In the later part of the 20th century, Mini, Macro and Maxi computers have come in. These computers have the capacity to do great works at the speed of light. In the light of (Folorusho, 2003) analysis of the evolution of the modern computer that includes, desktops, notebooks, laptop etc, there is no feasible reason why computerisation should not be part of the priorities of a modern 21st century university.

Any organisation which has not embraced computerization can best be described as an organisation operating in the 21st century under principles applicable to the dark ages. It cannot be expected that a modern 21st century university is not fully computerised. Under such situations, academic planning is not effectively operational.

Though this study reviewed literature extensively on Management of information systems, computerisation taking particular interest in information generation, availability, utilization and the effectiveness of academic planning. It must be explained that information and computerisation in Nigeria, Africa at all levels of education and institutions is facing unprecedented challenges. Babalola (2010) and Ali (2009) pointed out that computer and information equipment in Africa was a far cry away in cost from what they are in the USA. This was corroborated by several other scholars. It is stated that cost of equipment in Africa is several times the cost of the same equipment in the USA while funds are relatively easier to obtain in the western world than in Sub Saharan Africa.

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2.6 Appraisal of Literature

This study reviewed significant literature on previous works on the subject of information generation, availability, utilisation and Academic planning effectiveness in Nigerian universities. The study looked at the concept of information as explained by earlier researchers that included; Neil and Anderson (1972), Barch (1986), Moriano and Rodden (1996), Aiyepeku (1978), Aiyepeku (1982), Aiyepeku (1983) and Nwankwo (1985). These scholars saw information as removal of uncertainly, dispelling doubts from any endeavour and empowering the possessor. Such empowerment avails the decision maker of enough facts to make timely decisions. Other scholars agree that information facilitates decisions and ensures consistency in managerial decisions (Grimshaw, 1995), Okpeke (1996), Owens, Wilson and Abel (1997). The dearth of reliable information has been discovered to be an important organisational resource that must be well managed (Nwankwo, 1985), Longe and Agabi (1990). Some authorities see information as the cumulative summary of all that obtains in organisations nations and individuals as it is the available information that deepens the level of any preparation and planning that will be undertaken (UNESCO 1979 cited in Nwankwo 1985:11). Relevant information must be reliable, accurate, relevant, timely, robust and accessible (Mondy, 1990), Plunkett and Attner (1994), Hodge et al (1996) and Griffin (1993).

Information does not come from the air, it must be generated and it is only generated information that can be utilised (Gibbs and Buchanan, 2007), Onocha and Okpala (1995). Generated information is information that comes to an organisation in several forms as memos, circulars, forms, correspondences etc. Where such information is not adequately stored for re-use when required again, it cannot be said to be generated information (Igbeka, 2001), Ewart (2004), Flores and Salaun (2001). In the review of literature, it is agreed that information assists in planning, directing the organisation through capturing processing, storage and retrieval of information. It is also agreed that information cannot be appreciated without adequate personnel to extract the qualities of such information (Fickle, 1997), Hickle (2007), Skineer (1969), Muscon et al (1988) Rogers (2003) and Neeway (1982).

The priceless value of information makes its management imperative and mandatory (Gordon and Lindsay, 1988) Flores and Salaun (2001). There are two types of Management Information Systems (MIS). There is the manual and

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computerized MIS, each with its attendant advantages and disadvantage. Scholars in the information literature as Hubbard (2003), Muiguigan et al (2005) explained that a good information generation capacity reduces cost of programmes and increases productivity which in essence increases the profit margins of firms. Further to this, good information reduces the stress managers pass through. Information capacity can be measured in percentages although (Christiano, 1981), Woodhall (1966) and Becker (1964) showed some other methods of capacity utilisation measurements but such measurements were faulted for education products by Woodhall (1966) and Akangbou (1985), as they could apply to the pure sciences and difficult to establish in a survey research as commonly used in the behavioural sciences and education.

The need for computerisation was well stressed by Barnes (1966). The literature dealt with the components of both information management and management information systems specially the information network and database system, information utilisation capacity in academic setting particularly the sources of information. The reasons why educators utilise information was analysed by Siber (1974). However the area of academic planning effectiveness was also explored.

Literature was reviewed in the area of academic planning effectiveness. It was observed that several universities regarded as world class universities like Toronto, Massachusetts, Wisconsin and Michigan etc have developed tools for measuring the effectiveness of academic planning in universities. Katz and Khan (2006) and Soyibo (1985) described academic planning as involving processes that include the faculties and departments. Academic planning in universities deals with personnel costs, administrative efficiency, meeting organisational objectives and laid down goals, policies. Manifestations in academic planning from which its effectiveness can be ascertained include; teaching methodologies, improved service deliveries as accommodation for staff and students, satisfaction with admission, availability and utilisation of counseling services and ensuring compliance with best practices available but this study emphasised the role of information management stressing on (generation, availability and utilisation) in ensuring academic planning effectiveness.

This study reviewed literature on the evolution of Modern Information Communication Technology (ICT), its relevance and global influence on educational planning. Educational policy planning and the meeting point of ICT policy in developing countries was also reviewed using the works of Lundu & Mbewe (1993) for Zambia and the works of Nnebe (2008) for Nigeria. The work of Lundu and

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Mbewe (1993) was an advocacy for the adoption of the use of ICT through the formulation of an IT policy in Zambia. Nnebe (2008) showed the Nigerian IT policy, its strategies, vision, mission and some achievements.

The Nigerian IT policy has fallen short of its target as it was expected that all civil servants (Federal) were to be IT literate and compliant by the year 2002. This is yet to materialise hence a deliberate attempt in this work included the measurement of the state of preparedness in universities for the adoption of IT. Adopting the systems theory, universities are part of the larger Nigerian supra-society hence the universities cannot be far removed from social events in the nation. ICT and educational planning are facing great challenges. These challenges have been summarised as; low level of computer literary, absence of basic infrastructure, dearth of technical support staff, low level of funding, increasing and expanding unit cost in education and absence of ICT policies (Akubilo, 2007). It is further argued that only five (5) African countries namely; Kenya, Nigeria, Scychelles, South Africa and Zambia have IT policies (Adekanbi, 2008), but it is yet to be established if any has ICT policy. It is mooted that Bostwana has recently adopted one. African universities are encapsulated into the general problem of African nations which is mostly financial. Other fundamental crisis in African universities is the problem of brain drain which is closely related to the foregoing challenges mentioned above.

2.7 Theoretical framework

Relevant and existing theories to this study are hereby adopted. They are:

(i) The Human Capital Theory
(ii) Information Capacity Theory
(iii) Planning Theory
(iv) Input/Output Theory

The Human Capital Theory

Human capital evolved from the works of the classical economists of the sixteenth century as Adam Smith in 1756 in his book the ‘wealth of nations’. He observed the inherent qualities in human capital that were incomparable to any other investments known. He was closely followed by the Neo classical economists as Alfred Marshall, and modern day economists that include Milton Friedman etc all of

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who have their perceptions of the same subject but in different and diverse perspectives.

The theory on human capital (HCT) finds applicability in almost all facets and endeavours of learning. Various economists beginning from the classical and later the neo classical acknowledged the role human capital plays in production. It was this foundation that made later say economist emphasize its adoption by government. It was observed that no other investment in physical goods is comparable to that of human beings hence regarded as the most comprehensive returns with greater returns to scale (Schultz, 1971) and Schultz (1964). Also, Psacharaopolous and Patrinos (2002) observed that investment in human capital cannot be compared to any other investment hence they all advocated that government must continue to devote a high percentage of its income to education. They observed that the characteristics of capital whether human or physical include; increase in capacity, and capacity expectation, time as a factor of investment and profit, capital build up (capital stock) and depreciation (Babalola, 2000). Most economist especially in the evolution of human capital theory identified land and labour which was referred to as the growth model, but with time, the error factor was discovered and factored into its calculation of returns to scale that was eventually attributed to an earlier undiscovered factor "technology".

Several scholars have given their weight to the human capital concept which involves acquisition of skills, knowledge reasoning and decision making abilities in the workforce of any organisation or nation (Ogbodo & Nwaoku, 2008) Gomez-Mejia & Bulkain (2002). They explained that the qualities mentioned above supported innovation and productivity through the provision of core competencies thus;

- Knowledge resides in peoples minds and such knowledge is unique and relative
- Ability to harness human resources depends on the integrated achievement of an interdependent individual employee and their willingness to collaboratively use their talent to support organisational goals and missions.
- Take long time to develop core competences
- The culture of the organisation (goal and objective) play key roles in what people do

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The literature on human capital distinguishes among several types of education and their contribution to education. Psacharopolous & Patrinos (2002), observed that national returns to primary education is 7.9% while that of secondary education was 8.5% and tertiary education 7.2% but private returns to primary education was estimated at 15.4%, secondary and tertiary education at 11.5% respectively and it is expected that it will be higher for developing countries like Nigeria. Psacharopolous & Woodhall (1985), in another study used data from 85 countries to buttress the fact that schooling has increased based on enrolment ratios, return on human capital investment that ranges between (3.4 and 7.4)% compared to (0.4 to 1.0)% on other forms of investment and therefore argued that investment in human capital is most preferred.

Another scholar, Blaug (1970), in the process of establishing a relationship between investment in human capital and economic growth observed a direct positive relationship with increasing level of literacy using data from 88 countries. The study showed that a (20-30)% rise in average literacy rates resulted in GDP increases of between (8-16)% with the strongest relationships existing in Sub-Saharan African countries. Several benefits accrue to investment in human resources (Human capital), these include economic growth increases improvement in health care through population control and fertility rate improvement (Schultz, 1981).

Universities create human capital especially at the tertiary level of education. Africa is technologically deficient (Adekanbi, 2008) and must be encouraged through investment in education to improve. The theory is very much related to government investment in public education as a social service with the poverty rate in Africa and in Nigeria that is alarming.

Emphasizing ICT and information studies will enhance academic planning effectiveness. A major point of intersection and relevance between the Human Capital theory and this study lies in the fact that both emphasise investment in persons. While Academic planning effectiveness in universities seeks to enhance the productive capacity of Nigerian graduates through effective planning of curriculum and other needs to ensure satisfaction and empowerment after education, the HCT emphasised the reasons why the core competencies of man must be discovered and harnessed with modern productive weapons and in this study the ICT. Both study and theory agree that government has a major role to play in enhancing a balance between academic planning effectiveness and information management since public universities are not

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allowed to charge equilibrium school fees. Therefore, government shall continue to be the source of finance for public universities providing basic needs especially infrastructure for Management of Information (generation, availability and utilisation).

Information Capacity Theory

The information capacity theory in organisations emphasises the abilities of organisational staff to put themselves in vantage positions to acquire relevant information that are related to their goals and objectives. The theory is ascribed to the works of Shannon that gained prominence in 1948 and originated from communication theories (Cover &Thomas, 2006). The theory emphasizes that the movement of information from one point to another as A - B involves a process transfer that is subject to uncontrollable ambient noise and imperfections in the physical settings signaling the process itself. Shannon used the theory to prove that information can be sent reliably over a channel at all rates up to the channel capacity through the attainment of an arbitrarily small but non zero probability of error using the channel many times in succession. To attain the ability to transfer information over a reliable capacity channel, the theory emphasized the fact that its users must possess 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) and Okwillagwe (1985).

The personality, emotion and mental variables identified by Okwllagwe (1985), Tennenbaum & Schmidt (1958), include organisational norms, workshop pressures and time. It is stated that these factors affect manager's behavior in organisational setting like universities and its environment. The theory further emphasises and work 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

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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 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 (Ayepeku, 1982), Tushman & Scalan (1981).

Information capacity theory and the study on Management of Information and Academic planning effectiveness in universities have common areas of interest as the study seeks to establish the capacity of academic planning to generate and contain relevant information, make it available for planning and enhance productivity and satisfaction of stakeholders. While scholars studied found the sources of information and capacity for information, this study also overviewed the information generation process in Nigerian universities actually zeroing on its availability and utilization. While the information capacity studies the movement of information, this study observed the constituent elements in university administrations and planning that actually generate information and their capacity for such activity.

Information Planning Theory

The information planning theory evolved after the world wars towards the middle of the 20th century though it became very popular towards the last three decades of the 20th century. The theory evolved from other disciplines as economics, politics, feminism, rationality and communications. The theory has been researched into by scholars as Faludi (1973, 1982 and 2000), Feriera, Sykes and Batey (2000), Campbell and Fainstein (2003).

Though the theory had its origin from spatial planning before being applied to other disciplines. Faludi (1982) related the theory to spatial planning while Ferriera et al (2000) related it to the planning of education and the general planning theory since planning is an endeavour that cannot be successfully executed without information

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(Wonnacourt and Wonnacourt, 1977). Crawford (2010) also related planning theory to medical science especially heart related studies while Barton (2010) saw it as strengthening the roots of planning and creating a synergy of integration among disciplines. Barton (2010) further stated that planning theories can be applied to studies in Global ecosystems, natural environment, built environment, activities in the local community sectors and into lifestyles. It is clear form Barton (2010) that planning theory is applicable to the study of information. Faludi (1982) further explained that the planning theory had a distinct perspective from where problems and solutions were defined. He structured the theory into two namely; Project plans and strategic plans.

Faludi (1982), stated that project plans are evolutionary in nature while strategic plans are indicators of planning instruments. Ferriera et al (2000) explained that planning should be a regulatory activity concerned primarily with physical activities from the social, environmental and economic perspectives. Faludi (1982) explained that the origins of disciplines must be well synergized, planned with enough information as shown in the figure below;

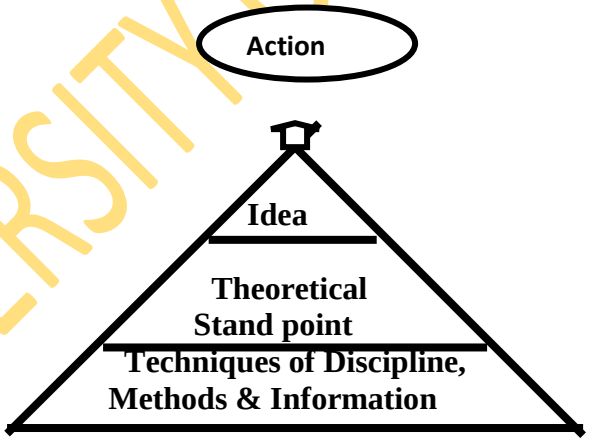

Fig 1

Model for disciplines in early stages of formation - Faludi (1982) Pp 34

The rise in economic growth after the Second World War according to Nwankwo (1981) was responsible for the sudden growth of planning theories which his study indicated had to do with goals, objectives of organisations and nations using models and method. Faludi (1973), identified the aim of planning to be growth and further subdivided it into growth as a process and growth as a model. Planning theories were designed to provide solutions to various problems. Macleod (2003) identified two aspects of the planning theories - Rational Comprehensive Planning

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(RCP) theory and the Incremental Planning Theory (IPT). Macleod (2003) study disclosed that there were differences in the two theories; The RCP deals with knowledge of what was, what is and what it expects of the future leading to planning through gathering of information, analysing such information and projecting it, the IPT on the other hand deals with societal policies. The RCP had a comprehensive approach to issues that is, it takes sectors and uses data to interpolate, project, analyse and arrive at scientific conclusions. It is these qualities that endeared the RCP to researchers in the core social sciences and econometrics. Its scientific approach led to the development of models from its comprehensive nature.

IPT on the other hand believes that growth must be planned and as such must go in incremental dimensions. The IPT influences public policy through lobbying of Government officials to facilitate societal events unlike the RCP. The Chicago Housing Authority was the first to criticise the RCP that though it uses scientific analysis, growth had to be incremental but also critised the IPT for its unbalanced nature scientifically. Therefore the weaknesses of the IPT was summed up in it pleauralistic nature of lobbying.

Again, Tanbergen, (1973) cited in Nwankwo (1981) while defining a plan explained it as "a coherent whole of facts and figures indicating the most desirable course of events". From the latter description, educational planning and academic planning is perceived as actions today in education with future implications in education. Longe (2003) and Nwankwo (1981) explained that information planning theories and the general planning theories are related in the fact that planning acts as their general denominator while applicability remains diverse. Further to this, Planning either in academic planning or information studies is rational and comprehensive but does not share the negative characteristic itemised in IPT and RCP.

The Input - Output Theory

The Input - Output (I/O) theory evolved from the works of modeling in mathematics before being taken over by the discipline of economics and the then Marxists economists of the 19th and 20th centuries. The theories were pioneered from these works and a popular pioneer in the 1950's was J. Gillman in his works the falling rate of profit. He used it to compute national income figures to obtain the estimates of the rates of surplus value, organic composition of capital and rate of

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profit for the British economy. The theory is a subset of the systems theory approach in modern management and administration. The I/O theory describes the inner workings in organisations. It basically assumes that output which the society gets is a function of what that society has fed into it system as input. The I/O theory also seeks improvement and efficiency in organisations. In a conference organised by the Switzerland Institute of Technology, Lausanne in 2002, on the Input/Output life cycle assessment as an entity and methodology, either as stand-alone or used in conjunction with other methodologies. The conference revisited the approach used by Wassily Leontiff, the Noble prize for peace winner in 1920 who also worked on the levels of economic flows in regards to the demand for final consumption (Leontiff, 1920; 1936 and 1970). The approach was found successful and began to be applied in other disciplines. From the Lausanne conference, it was observed that the I/O, when used in the disciplines of computer science and other related disciplines, showed differences in price, output, durability as factors that determine output and quality of laptop computers. Present at the 2002 conference presentation in Lausanne were scientists from universities in Geneva, Harvard, German consultants and a host of others. The theory premises output as a function of input.

The above and foregoing description of the I/O theory, all apply to the management process, academic planning, educational planning, information planning etc. University managers all over the world should embrace the I/O concept and theory. The quality of students and other resources that go into any system will determine the graduates the system will produce. The I/O theory recommends the use of baseline data in its planning dynamics for example, as you plan an information system, you should be able to determine minimum standard requirements for the system to function well. Therefore as you prepare for academic planning, there is the need to determine the baseline requirements for effective productivity. The I/O theory recommends the use of sound policies that can withstand the test of time in general planning.

2.8 **Conceptual Model**

The conceptual model for this study is fashioned after the input/out model. Using the management of information to look at generation, availability and utlisation of information for academic planning effectiveness.

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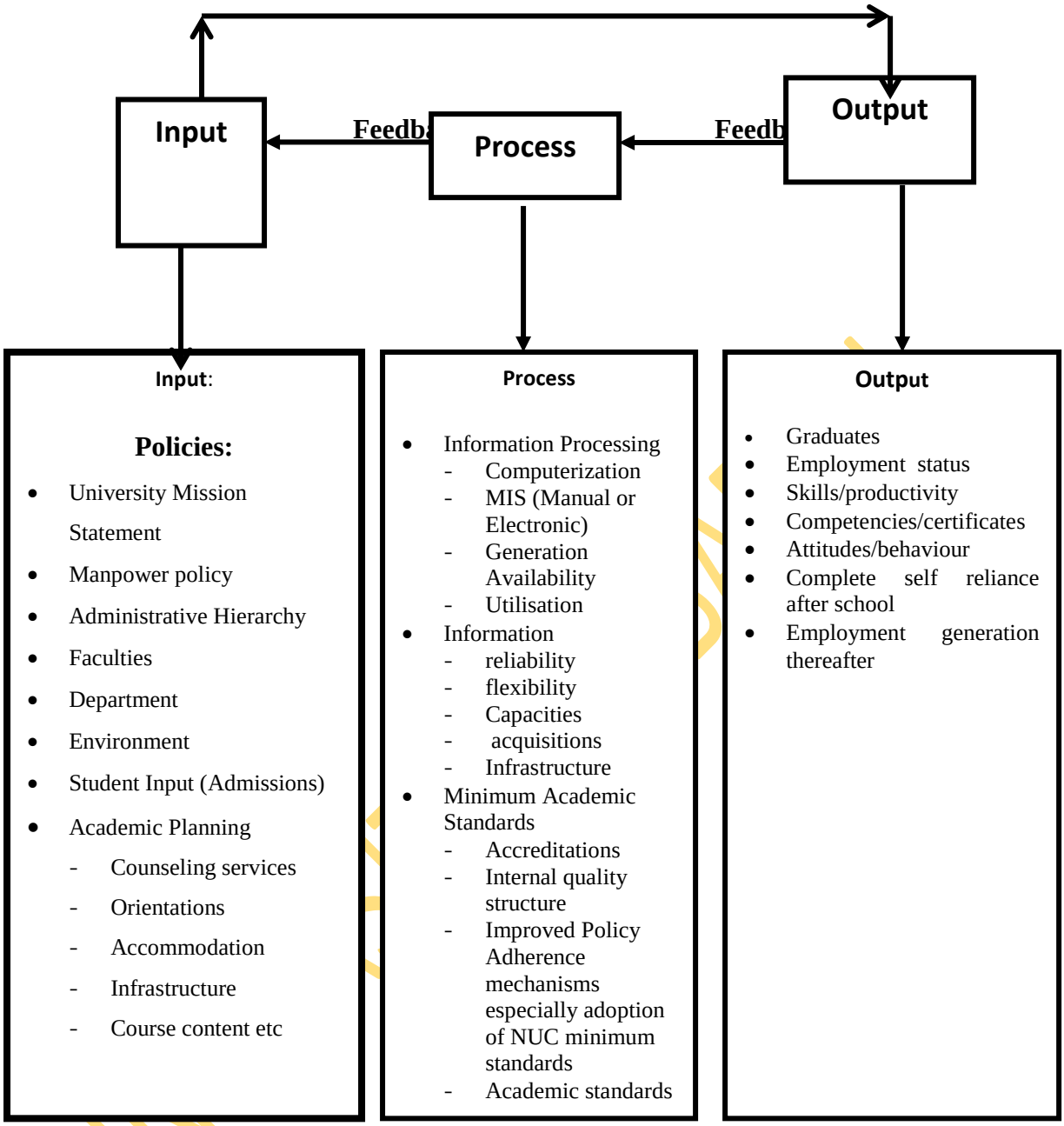

Fig 2: Conceptual Model for Academic Planning Effectiveness in Nigeria Universities Academic Planning - Input/Output Model

Source: Adapted from United Nations Educational Scientific and Cultural Organisation (UNESCO 2002:24) EPA Global Monitoring

The theories reviewed showed the importance of importance of investment in education. The theories had specific relationship with the topic in study. Academic planning in universities involves investment in human capital, that is, building future human capital stock which is the trust of the Human Capital Theory. The HCT finds places of cost reduction using what is available especially the production matrix to find least cost. Academic

planning while carrying out its functions that include investing in the future of Nigerian undergraduates also has the duty to maintain policy.

Further to this, the Information capacity theory that was used has the same thrust as the management of information as it looked at the capacity to generate, utilise and make information available for academic planning. The theory was quite relevant to the topic in the sense that the theory is much involved in the discovery of the capacity to get information, acquire information and store information which is the trust of the independent variables in this study. The Input output theory is quite relevant and related as we have to find out the levels and quantity of mix that will bring the best out of our undergraduates. Input into the system are shown in the conceptual framework and methods of processing the input into the output of our desire are also shown. This invariably is the function of the department of Academic planning in universities.

The generation of information will assist the educational administrator and planner to understand the level of input resources required to keep the process moving. Availability and utilisation of input (processing) ensures optimality to the best advantage in the system. All four theories move in the direction of quality, productivity and utilisation of input for optimal output.

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CHAPTER THREE

METHODOLOGY

3.1 Research Design

The study adopted the survey research design of the '*ex post facto*' type that is correlational in nature. The survey research was adopted as it was found to be suitable for studying large populations. The study investigated the Management of Information as Predictor of Academic Planning Effectiveness in Nigerian Universities. The study had generation (IG), availability (IA), utilisation (IU) of information as its independent variables while academic planning effectiveness (APE) was the dependent variable. The study adopted the survey research in line with Christiano (1981) and Hubbard (2003).

3.2 Study Population

The total study population comprised Directors of Academic Planning, Directors of Management Information Systems (MIS) and Directors of Information Communication Technology (ICT) Centers with teaching staff, students in 100 and 400 levels respectively in Nigeria's first and second generation universities. They were altogether 64,742. The universities used for the study were all Federal Government (FG) owned public universities. A total of 7,160 respondents spread across the six geopolitical zones of Nigeria formed the study sample.

3.3 Sampling Procedure and Sampling Technique

The multi stage sampling procedure was adopted in selecting samples for the study. At the university level, it was purposively determined that only first and second generation universities should be used for the study to keep data under manageable proportion and more so within the limits of fund. A 50% sample was also purposively adopted among the two categories of universities, that is, 50% of first generation universities and another 50% of second generation universities.

The above procedure gave rise to the adoption of seven out of Nigeria's thirteen first and second generation universities. The 6 first generation universities were: universities of Ibadan, Lagos, Nsukka, Benin, Obafemi Awolowo and Ahmadu Bello universities. Fifty percent of these 6 universities was 3. To enhance a fair

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representation, the study ensured a geographical spread of the three universities to be sampled among first generation universities. Hence, the universities of Ibadan in the Southwest, University of Nigeria Nsukka in the South East and Ahmadu Bello University in the Northwest were selected. Furthermore, to ensure fairness in selection and avoid bias, the study selected the oldest of the universities as it was believed that funds among Nigerian universities were rationed most times according to age which is a strong determinant of other factors and outcomes especially infrastructural development.

Another fifty percent of second generation universities were selected across the remaining geopolitical zones that were not represented in the first selection. Second generation universities were seven: The universities of Calabar, Ilorin, Jos, Maduguri, Bayero in Kano, Port Harcourt and Sokoto. A fifty percent sample was 3.5 that was approximated to 4. The following universities were selected: Bayero in Kano, Ilorin, Maiduguri and Port Harcourt spread across the Northwest, Northcentral, North East and the South, South of Nigeria respectively. This procedure is clearly reflected in Tables3.1 and 3.2

The next stage of the sampling procedure involved the choice of faculties to be studied in the selected universities. They were purposively selected especially faculties found to be common to all universities running the same programmes. A fifty percent sample was adopted that gave rise to five regular faculties that run 4-5year programmes namely; Arts, Education, Social Sciences, Education and Agriculture. Not all first generation and second generation universities run Faculty of Management Sciences. Centres and Institutes were not used as they were not regular Faculties. Twenty five percent respondents sample was adopted. The respondents among the various categories were selected using the simple random sampling technique. Finally, since the directors were only 14 in the 7 universities selected for the study, a census of all directors was adopted. These are well explained in Tables 3.3, 3.4 and 3.5

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Table 3.1: Sample of First Generation Nigerian Universities according to Geopolitical Zones.

Institution	Geopolitical Zone	Selected university in zone
University of Ibadan (UI) University of Lagos (Unilag) Obafemi Awolowo University (OAU), Ife	Southwest	University of Ibadan
University of Nigeria, Nsukka	Southeast	University of Nigeria
University of Benin (Uniben)	South South	Not sampled
Ahmadu Bello University (ABU)	North Central	Ahmadu Bello University
None	Northeast	None
None	Northwest	None

Source: *Compiled by the researcher (2007)*

Table 3.2: Sample of Second Generation Nigerian Universities according to Geopolitical zones

Institutions	Geopolitical zones	Selected university in zone
-	Southwest	None
-	Southeast	None
University of Ilorin (Unilorin) University of Jos	North Central	University of Ilorin
University of Portharcourt (Uniport)	South South	University of Portharcourt
Bayero University, Kano (BUK)	Northwest	Bayero University, Kano
University of Maiduguri (Unimaid)	Northeast	University of Maiduguri

Source: *Compiled by the researcher (2007)*

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Table 3.3: Sample of academic staff and Directors of academic planning/ICT in Nigeria's first and second generation universities

S/N	Sampled institution	Census of Directors of Academic Planning & ICT	Total no. Teaching staff in University	Academic Staff by Faculty						
				Arts	Agric	Educ	Science	Soc. Science	Acad Staff in sampled Fac.	20% Sample
1.	University of Ibadan	2	1,197	(26) 131	(23) 115	(21) 106	(35) 175	(21) 101	628	126
2.	University of Nigeria	2	1,459	(24) 121	(23) 117	(32) 160	(31) 153	(29) 144	695	139
3.	A.B.U	2	1,513	(24) 117	(21) 105	(22) 111	(28) 140	(26) 128	601	122
4.	University of Ilorin	2	767	(21) 108	(11) 54	(21) 105	(28) 140	(25) 125	532	106
5.	University of Port Harcourt	2	776	(22) 111	(10) 50	(21) 105	(28) 138	(26) 130	536	107
6.	Bayero University Kano	2	724	(21) 108	(12) 64	(17) 87	32) 161	(24) 120	540	106
7.	University of Maiduguri	2	760	(20) 98	(12) 60	(19) 88	(32) 159	(26) 130	525	108
	Total	**14**	**7,196**	**794**	**565**	**762**	**1,066**	**878**	**4065**	**813**

Source: *Investigators personal visit to sampled universities in 2006/2007 session*

The study selected 20% sample of academic staff in Nigerian universities as displayed in the Table 3.3. Eight hundred and thirteen (813) were selected from five faculties out of a total population of 7, 196 in all faculties of the respective universities.

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Table 3.4: Selected sample of freshmen and women in sampled faculties in Nigeria's first and second generation universities.

S/N	Institution	Total 100L in Institution	Arts	Agric	Educ.	Science	Soc. sc	Total Fac Pop	20% sample
1.	**University of Ibadan**	2,400	(66) 330	(61) 305	(65) 324	(77) 388	(60) 298	1,645	329
2.	**University of Nigeria**	5,819	(111) 555	(37) 195	(69) 344	(181) 905	(160) 800	2,799	559
3.	**A.B.U**	4,818	(78) 388	(22) 109	(50) 247	(222) 1,110	(114) 571	2,425	485
4.	**University of Ilorin**	4,556	(63) 316	(41) 206	(80) 397	(202) 1,004	(121) 605	2,528	507
5.	**University of Port Harcourt**	4,600	(106) 310	(32) 158	(76) 378	(206) 1,030	(130) 657	2,533	506
6.	**Bayero University Kano**	2,944	(62) 310	(16) 80	(77) 384	(174) 871	(99) 497	2,142	429
7.	**University of Maiduguri**	3,950	(62) 308	(32) 162	(66) 330	(172) 860	(122) 610	2,270	454
	Total	**29,087**	**(549) 2,517**	**(264) 1,215**	**(483) 2,404**	**(1,234) 6,168**	**(802) 4,038**	**16,342**	**3,269**

Source: *Investigators personal visit to sampled universities in 2007/2008 session*

Table 3.4 shows the selected 20% sample of freshmen and women from 5 out of 13 faculties of selected first and second generation universities. Total sample selection was 3, 269 students.

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Table 3.5: Selected sample of final year undergraduates in sampled faculties in Nigeria's first and second generation universities

S/N	Institution	Total 400L in Institution	Arts	Agric	Educ.	Science	Social science	Total Fac Pop	20% sample
1.	**University of Ibadan**	3,450	(59) 293	(67) 335	(60) 302	(78) 389	(57) 286	1,605	321
2.	**University of Nigeria**	3,387	(123) 617	(36) 182	(69) 344	(138) 691	(117) 586	2,420	484
3.	**A.B.U**	4,250	(83) 413	(32) 156	(96) 482	(190) 950	(115) 574	2,575	515
4.	**University of Ilorin**	5,997	(69) 343	(33) 168	(94) 472	(166) 828	(139) 694	2,505	501
5.	**University of Port Harcourt**	3,932	(50) 252	(22) 110	(57) 283	(150) 750	(117) 585	1980	396
6.	**Bayero University Kano**	3,779	(62) 309	(20) 101	(94) 469	(122) 609	(113) 567	2,055	411
7.	**University of Maiduguri**	3,650	(98) 488	(25) 127	(66) 330	(139) 695	(108) 540	2,180	436
	Total	28,445	(5449) 2,715	(235) 1179	(536) 2,682	(983) 4,912	(766) 3,832	15,320	**3,064**

Source: *Investigators personal visit to sampled universities in 2006/2007 session*.

Twenty percent selected sample of final year students from five faculties in selected Nigerian first and second generation universities was 3,064 respondents. A summary of the sampling technique is herewith provided;

1. Census of all Directors of Academic Planning Units and Information Technology Centers = 14
2. 20% sample of teaching staff in sampled universities = 813
3. 20% sample of freshmen and women in sampled universities = 3, 269
4. 20% sample of final year students in sampled universities = 3,064

Total selected sample of respondents = **7,160**

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3.4 Research Instruments

Four research instrument and a checklist was used for data collection. These were the Nigerian Universities Information and Academic Planning Effectiveness Questionnaire 1 - 4 (NUIAPEQ). NUIAPEQ 1 was designed to elicit responses from Directors of Academic Planning and Information Communication Technology Centres (ICT). NUIAIPEQ 2 was designed to elicit responses from university teaching staff - Lecturers. NUIAPEQ 3 was designed to elicit responses from freshmen and women in one hundred level (100L) NUIAPEQ 4 was designed to elicit responses from final year undergraduates in the selected universities. The questionnaires were structured into five sections, each of A, B, C D and E. Section A elicited responses on respondent's personal data. Section B elicited responses on managing of information (information generation). Section C elicited responses on managing information (availability). Section D elicited responses on managing information (utilisation of information) and section E elicited general information on universities academic planning effectiveness.

Another instrument was designed to ascertain the information generation and utilisation, availability and utilisation capacity of Nigerian universities - a checklist. The purpose of the checklist was to ascertain the information acquisition and preparedness of Nigerian universities for the digital age. The research instrument NUIAPEQ 1 - 4 was structured and adapted to a scale that could measure relationships '*expost facto*; The Likert scale method was adapted using the points SA - Strongly Agree that weighed 4 points, A - Agree weighing 3points, D - Disagree, weighing 2 points and SD - Strongly Disagree that weighed 1point.

3.5 Validity of Instrument

The research instrument was prepared to provide useful answers to the research questions and hypotheses and to confirm their usefulness and suitability for the purpose for which they were. Face and content validity methods were adopted.

The instruments were subjected to scrutiny by lecturers with expertise in management information systems in the Faculty of Education and the Department of Educational Management and the thesis supervisor. The instruments were further subjected to face and content validity by lecturers in the Faculty of Education of the

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University of Ado-Ekiti in Ekiti State. Suggestions and comments were used to improve on the instrument before the final version was arrived at. The instrument thereafter was subjected to factor analysis, to determine both quality and suitability. NUEAPEQ 1 was reduced from 26 items to 15 while NUEAPEQ 2 was reduced from 76 items to 70. NUEAPEQ 3 was reduced from 16 items to 9 and NUEAPEQ 4 was reduced from 22 items to 20. All test items that were discovered to be conflicting with the aim of the study were deleted specifically those whose cumulative item total correlation fell below 0.0

3.6 Reliability of Instrument:

The reliability of an instrument measures the degree of consistency to which it meets its objective in construction and scope. To prove this, a trial test was conducted in similar institutions that were not part of the main study. The universities used for the trial test were Obafemi Awolowo University (OAU), Ile-Ife and the Federal University of Agriculture (FUNAAB) at Abeokuta. The trial test targeted the Directors of Academic Planning Units in both institutions. The study selected fifty lecturers each from each of the universities, then one hundred students from one hundred level and final year students respectively from each university used for the trial test giving a total of three hundred and four respondents.

The method adopted for instrument construction was related to literature but not the only consideration hence, it needed to be tested for consistency on its main variables – Management of information (information generation, information utilisation) as independent variables while academic planning effectiveness in universities served as the dependent variable. The trial test adopted the method of split half for reliability analysis.

The Crombach alpha coefficient arrived at was NUAAPEQ 1 for Directors of Academic Planning and Directors of ICT/MIS in sampled universities *r* - 0.803, NUIAPEQ 2 for university lecturers, had an alpha coefficient of *r* - 0.602 and NUIAPEQ 4 for final year men and women had an alpha coefficient of *r* - 0.76 and NUEAPEQ 3 for new undergraduates, *r* - 0.83. The results indicated high reliability that the instruments were appropriate to measure what this study designed them to measure.

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3.7 Instrument Administration

The instruments were administered by the researcher in company of well trained research assistants in the six geopolitical zones of Nigeria. The instruments received a return rate of 100% as is shown in Table 4.1.From a total sample population of seven thousand, one hundred and sixty (7,160) respondents, 14 were Directors of Academic Planning units and Information Technology Centres (ITCs), 813 were academic staff of universities, 3, 269 were freshmen and women and 3,064 were final year students in first and second generation universities in Nigeria. The response rate of the 7,160 respondents is presented in Table 3.6

Table 3.6: Response rate by respondents and institutions

S/N	Institution	Category of respondents	Target population	Sampled population	Copies of questionnaire returned	Response rate in %	NUC classification of institution
1.	**University of Ibadan (UI)**	Freshmen	2,400	329	329	100	**First generation university**
		Final year	1,605	321	321	100	
		Lecturers	630	126	126	100	
		Directors	2	2	2	100	
2.	**University of Nigeria Nsukka (UNN)**	Freshmen	2,835	559	559	100	**First generation university**
		Final year	2,420	484	484	100	
		Lecturers	695	139	139	100	
		Directors	2	2	2	100	
3.	**Ahmadu Bello University, Zaria (ABU)**	Freshmen	2,425	485	485	100	**First generation university**
		Final year	2,575	515	515	100	
		Lecturers	1,513	121	121	100	
		Directors	2	2	2	100	
4.	**University of Ilorin (Unilorin)**	Freshmen	2,530	507	507	100	**Second generation university**
		Final year	2,500	501	501	100	
		Lecturers	767	106	106	100	
		Directors	2	2	2	100	
5.	**University of Portharcourt**	Freshmen	2,755	506	551	100	**Second generation university**
		Final year	2,500	396	396	100	
		Lecturers	776	107	107	100	
		Directors	2	2	2	100	

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S/N	Institution	Category of respondents	Target population	Sampled population	Copies of questionnaire returned	Response rate in %	NUC classification of institution
6.	**Bayero University, Kano**	Freshmen	2,145	429	429		**Second generation university**
		Final year	2,055	411	411	100	
		Lecturers	724	106	106	100	
		Directors	2	2	2	100	
7.	**University of Maiduguri**	Freshmen	2,275	454	454	100	**Second generation university**
		Final year	2,185	436	436	100	
		Lecturers	540	108	108	100	
		Directors	2	2	2	100	
	Total		**36,525**	**7,160**	**7,160**	**100**	

The response rate was considered effective and efficient as the instruments received 100% response rate. Reasons for this were that the researcher and research assistants insisted on getting responses on the spot. Also, since the researcher travelled long distances to administer the questionnaire, excess questionnaire were administered that were not used eventually. Only those collected from the spot were used. Copies of the questionnaire that came later were not used since they were in excess of 20%.

The response rate can be categorised according to Hopkins & Antes (1990) as very good. Antes and Hopkins (1990) explained that a 50% instrument response rate can be categorised as adequate for reporting purposes while 60% return rate can be categorised as good and 70% and above can be categorised as very good. In this case, a 100% return rate was classified as excellent.

3.8 Method of Data Analysis

The results obtained were collected, collated and analysed by the researcher. The data obtained were used to present answers to the research questions and the checklist using descriptive statistics as mean, frequency counts, percentages, ratios, mode, median, standard deviation presented in Tables etc. Hypotheses one, two and three were analysed using the Pearson's Product Correlation formulae to determine levels of relationships between the independent and dependent variables, while the multiple regression analysis was adopted to test the combined and relative influences

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of the independent variables on the dependent variables in hypothesis four and five. All hypotheses were tested at $p < 0.05$ level of significance.

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CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter contains results of analyses and discussion of findings.

Answers to Research Questions:

Research Question 1:

What is the level of management of information in terms of information generation (IG) for academic planning effectiveness in Nigerian universities?

This research question was analysed, discussed and tabulated using simple percentages to show the perceived level of information generated for academic planning effectiveness in universities regularly. The Tables showed the various levels of generation. First, it looked at generation by Directors and teaching staff before students. Each level is expected to contribute 100% to be fully effective. However, Tables, 4.2 - 4.5 explain the levels of information generated by the different categories.

Table 4.1 Perceived Management of Information (Generation) level in First and Second Generation Nigerian Universities by Directors of Academic Planning and Directors of ICT in Nigerian Universities

S/N	Questionnaire Items	Universities	A	D	T	Mean %
1	Your office generates information/data that is used for academic planning issues in this university all year round	First Generation Universities	(6) 6	(0) 0	6	100
		Second Generation Universities	(0) 8	(0) 0	8	
Total			**14**	**0**	**14**	

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

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Table 4.2 - Perceived MIS-IG level for freshmen and women in Nigerian universities**:**

S/N	Questionnaire Items	Universities	A	D	T	Mean %
1	Since you came into this university you have created documents on request containing information on your person, academic work, qualifications to the university authorities through forms at departmental, faculty or other avenues as university hospital, library or hostel etc	First Generation Universities	(95) 1,317	(5) 220	1,373	94.7
		Second Generation Universities	(94.7) 1,790	(5.3) 106	1,896	
Total			**2,943**	**326**	**3,269**	

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

Table 4.3 - Perceived MIS-IG level for final year students in Nigerian universities**:**

S/N	Questionnaire Items	Universities	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	70.3
		Second Generation Universities	(68) 1,080	(32) 502	1,582	
Total			**1,963**	**828**	**2,791**	

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

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Table 4.4 - Perceived **MIS**-IG levels of Academic Staff in Nigerian universities

S/N	Questionnaire Items	Universities	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 etc	First Generation Universities	(97) 378	(3) 10	(100) 388	93
		Second Generation Universities	(89) 382	(11) 15	(100) 397	
Total			**760**	**25**	**785**	

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

Tables 4.1 - 4.4 indicated that freshmen and women generate 94.7% information, final year undergraduates generate 70.5% and teaching staff generate 93% information while Directors of academic planning generate 100% information used for academic planning purposes in first and second generation Nigerian universities. Since almost all information for academic planning is often initiated by and eventually goes back to the academic planning office, it is not unexpected that they confirm that they generate 100% information.

It can be inferred that the largest number of those who generate information in Nigerian universities are Directors of academic planning and Directors of ICT/MIS. They generate information and influence others in the university community to generate information which they use for academic planning purpose. Directors of APU/ICT claimed to generate 100% information useful for whatever purpose the information may be used for. As shown in tables 4.1 - 4.4, the same claim was made by Directors in the case of utilisation of information.

The reason for such claim may not be far fetched as they sit at the central hub of all information entering or leaving the university. The Vice Chancellor consults with Academic Planning unit that also consults the MIS units. They are the data banks of the universities. Their claim was similar to that of fresh men and women as their responses indicated that they have the capacity to generate many information because as fresh men and women, they have so many documents to submit both in hard and soft copies and so have a perceived information generation capacity of 94.7%.

The perception of freshmen and women was closely followed by that of university teaching staff. They indicated that they generate 93% while final year

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students indicated that they generate 70.5% information. The results so far may be due to the fact that all information from every other section of the university community finally goes to the directorate of academic planning that keeps them in format it deems fit for re-use or recycling when the need arises. It can be observed that the directors of academic planning, ICT/Management Information Systems (MIS) agreed by 100% that they generate information. The average overall information generation capacity of the four components - Directors, academic staff and students averaged 88.2%.

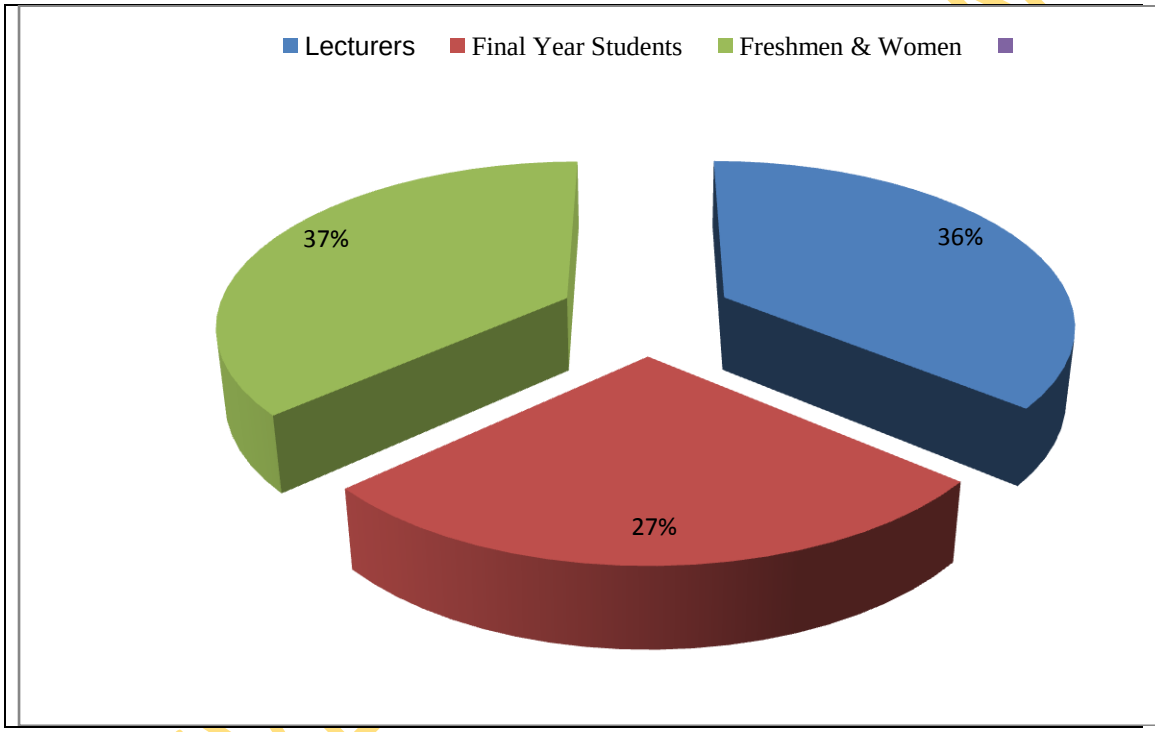

Fig 3- Respondents and levels of contribution to management of information generation for Academic Planning Effectiveness in Nigerian Universities

Figure 3 shows the aggregate contributions of stake holders in a weighted mean average to the management of information in Nigerian universities. All information go back to the initiator hence they contribute 100% and lay hold and claim to that information but teaching staff are contributory to academic planning MIS-IG by 37% while Fresh students aggregate 36% and final year students aggregate 27%

4.2 Research Question 2

What is the level of management of information in terms of its utilisation (IU) for academic planning purposes in Nigerian universities?

Table 4.5 presents information utilisation among stakeholders in Nigerian universities. Though the academic planning unit does not hold all the information in its storage media, it has authority and control over it hence it gets 100% control of any information at the disposal of the institutions. The various levels of differences between first and second generation universities MIS utilisation capacities is shown in Table 4.6.

Table 4.5: Information utilisation capacity in Nigerian universities.

S/N	Respondent	Questionnaire Items	Institutional classification	Agree	Disagree	Totals	% Agree	Mean Responses
1.	**Fresh students**	You have a computer you use in downloading material for academic purposes in your institution	First generation	850	479	1,329	64	**74.5**
			Second generation	1,254	220	1,470	85.1	
2.	**Final year students**	Your institution (university) has made computers available to you for use since you became a student,	First generation	564	749	1,313	43	**40**
			Second generation	643	1,091	1,734	37	
3.	**Lecturers**	As lecturer, you made use of information for decisions frequently especially issues of lecture delivery, student matters, passing information to higher authorities from information in the department, faculty or university.	First generation	234	144	375	62	**57.5**
			Second generation	223	224	447	55	
4.	**Directors of academic planning and ICTs in universities**	Major component of the information you use for decision making is sourced from the university environment locally.	First generation	6	0	6	100	**100**
			Second generation	8	0	8	100	

A - Agree, D- Disagree, T - Total

The results in Table 4.5 show the various levels of Information utilisation among the different categories of university respondents that participated in the study. The results show that lecturers utilise 57.5%, final year students 40%, fresh undergraduates 74.5% and Directors of Academic planning and ICT utilise 100%. One of the reasons why fresh undergraduates utilise more information will not be

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unconnected with several web portals in the universities which they have to visit to upload their data.

While observing the performance of the above data, it can be inferred that capacity to utilise information has to do with available equipment in universities. As will be expected, Directors have all the facilities provided for them by the authorities hence, they have 100% capacity for utilising information. It was expected that Directors will be followed in that order by teaching staff but that was not the case. It was followed by freshmen. Some posers were how come those freshmen have capacity for information utilisation than teaching staff. The observations made by this investigation is that freshmen and women utilise capacities not owned directly by them for example, they patronise cybercafés and business centres which academic staff will be unwilling to utilise. Teachers lend funds to purchase their own facilities since their institutions cannot provide for them the way they provide for them like the Directors. The information utilisation Table is shown in Tables 4.6, 4.7, 4.8 4.9 and in Fig 4.4 that show aggregate utilisation capacities.

Table 4.6 - Information utilisation capacity for academic staff in Nigerian universities

S/N	Items	Agree	Disagree	Total	% Agree
1.	Officially equipped with a functioning computer	408	405	813	50.2
2.	Utilise official Printers, scanners, CD ROMS	506	298	804	62.9
3.	You utilise full internet access in your office	441	372	813	54.2
4.	You operate your computer without assistance	599	214	813	68.8
5.	You utilise LAN facilities for communication	118	686	804	14.6
6.	You utilise email for your communication	510	303	813	62.7

A- Agree, D- Disagree, P- 50%

Table 4.6 show facilities commonly referred to as acquisition equipment that are used for utilisation purposes. These equipment are presented in Table 4.6, 4.7 and 4.8 show how each category of stakeholder in the study utilised them and their percentage levels of impact. As said in earlier sections, percentages and descriptive statistics was used to give readers who are not mathematically inclined an indept understanding of the issues under discussion.

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Table 4.7 - Information utilisation capacity for Fresh undergraduates in Nigerian universities

S/N	Items	Agree	Disagree	Total	% Agree
1.	You own a personal computer	1,719	1,550	3,269	52.5
2.	You can access and utilise scanners and printers	1,714	1,555	3,269	52.4
3.	You have access to full internet connectivity in your university	1,677	1,592	3,269	51.3
4.	There are plans to teach you computer skills by your university	1,714	1,555	3,269	52.4
5.	You have access to the university LAN	-	-	-	-
6.	You have access to email and you communicate with it.	3,208	61	3,269	98.1

A- Agree, D- Disagree, P- 50%

Table 4.8 - Information utilisation capacity for Final year students in Nigerian universities

S/N	Items	Agree	Disagree	Total	% Agree
1.	You own a personal computer	1,351	1,1713	3,064	44
2.	You utilise scanners and printers for your work	2,009	986	2,995	67.1
3.	The university provides internet connectivity that you can use	1,198	1,840	3,084	39.4
4.	You can use a computer for your tasks without assistance	1,597	1,425	3,022	52.8
5.	You have access to utilise the university LAN	-	-	-	-

A- Agree, D- Disagree, P- 50%

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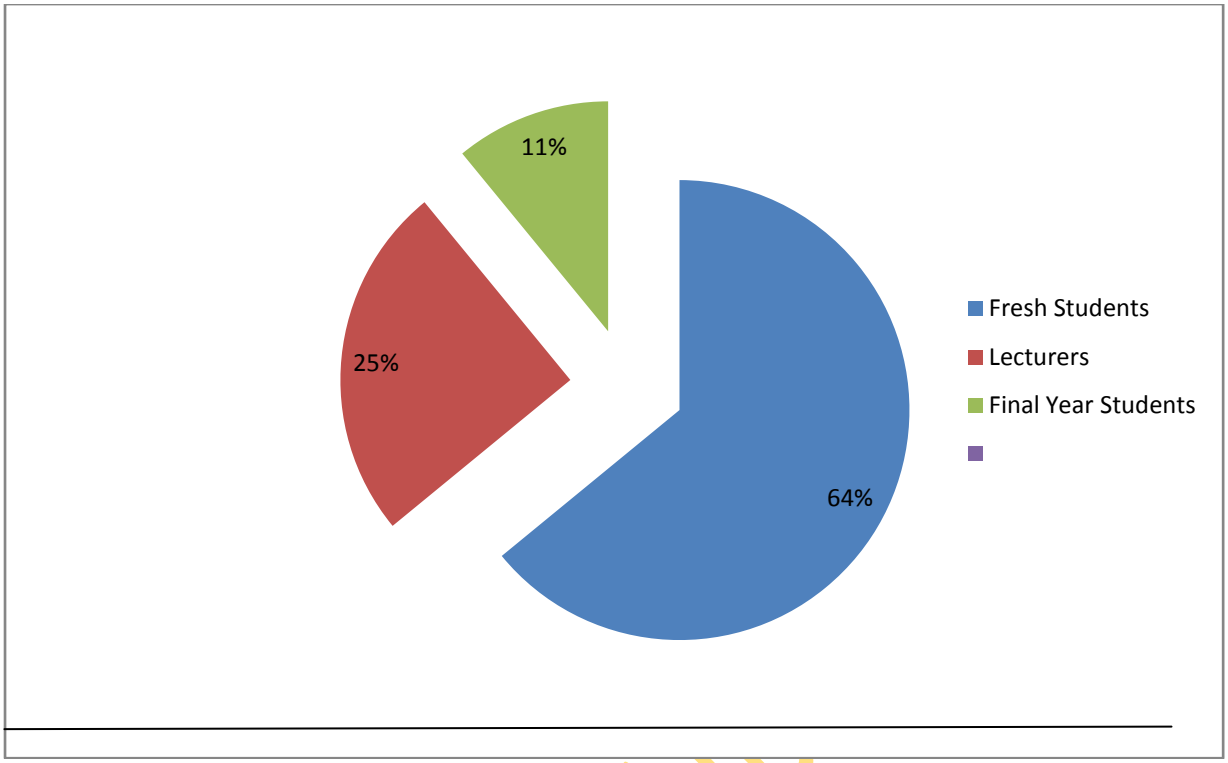

Fig 4: Respondents and aggregate levels of contribution to MIS Utilisation for Academic Planning Effectiveness in Nigerian Universities

Research Question 3

Are the resources for accessing information available in Nigerian universities for effective academic planning?

Table 4.9 presents access to information accessibility equipment in Nigerian universities. The Table showed the methods of information preservation, availability and utilisation of databases and networks. Majority of the infrastructure referred to may be owned by the university or may not but there must be storage and retrieval in modern educational and academic planning settings in a computerised management information systems.

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Table 4.9 Access to available data/information storage facilities in Nigerian universities

		LECTURERS				FRESHMEN				FINAL YEAR			
S/N	**Questionnaire Items**	**Pop**	**A**	**D**	**% A**	**Pop**	**A**	**D**	**% A**	**Pop**	**A**	**D**	**% A**
1.	To gain easy access to information, you often store your information in electronic formats	813	546	215	71.7%	3,269	-	-	-	3,064	925	1964	32
2.	You have personally created data bases for uploading and downloading information.	813	540	234	68.8%	3,269	-	-	-	3,064 -	-	-	-
3.	The personal databases created by you are designed for easy retrieval of information.	813	543	370	66.7%	3,269	-	-	-	3064	539	2372	18.5
4.	There is a central database system in your institution for use by both lecturers and students	813	425	388	52.2%	3,269	2561	708	77.1%	3064	1177	1791	40
5.	It is easy for you to access the university web portal and website from your location/office on campus.	813	331	482	40.7%	3,269	2113	1148	65%	3064	728	2200	24.87

P = Population of sampled Lecturers, A = Agree, D= Disagree

Table 4.9 showed that 71.1% of lecturers store information in electronic formats while 68.8% have access to data stored in databases that include some teaching staff personalized databases. It was further observed that 66.7% of university teaching staff can retrieve data from databases by electronic means while 52.2% of lecturers have access to central databases in the university system. Again it is observed that 40.7% claim access to web based databases and can load their systems from the university database systems. Non accessibility of students to databases may not be unconnected with the fact that most of the information in the databases is secured and gives limited access to people who are not teaching staff. It is not limited to only those who are not teaching staff but to those of them who do not subscribe to such facilities. It is likely that such factors could be responsible for the low access rate of teaching staff to such levels of information.

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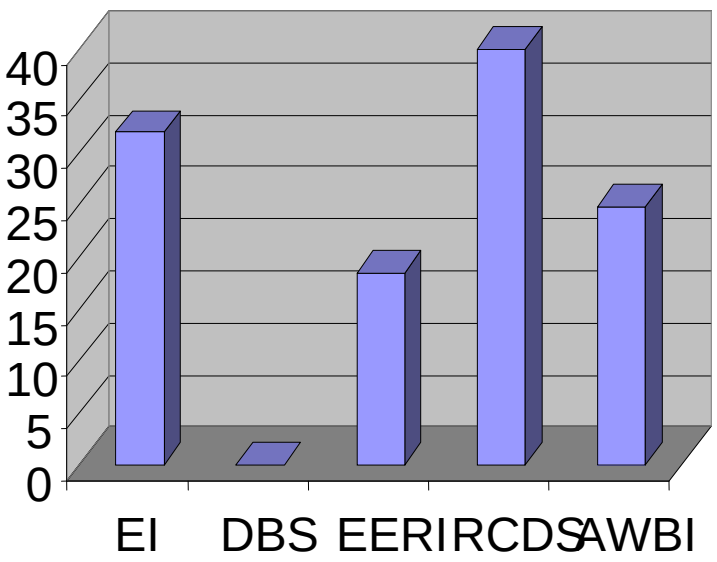

EI - Electronic Information, DBS - Database system information,

EERI - Easy Electronic Retrieval of Information, RCDS –Retrieval of Information from central database system

AWBI- Access to web based information

Fig 5: Disaggregated MIS-infrastructure availability among final year Students in Nigerian Universities.

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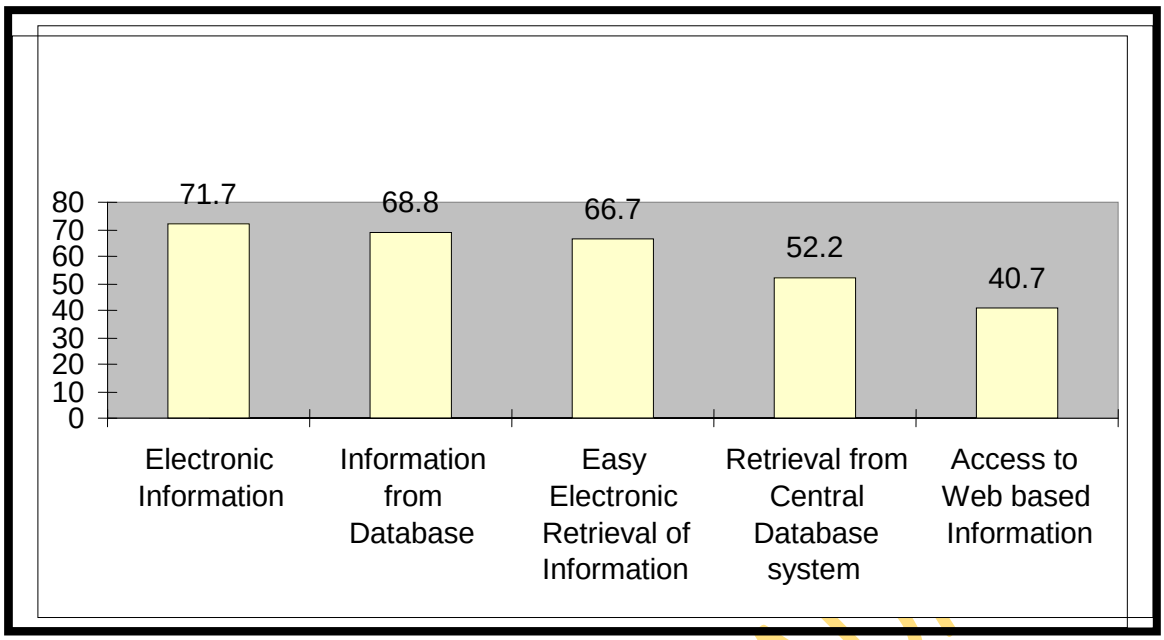

Fig 4.6: MIS-information infrastructure availability among lecturers in Nigerian Universities

Figures 4.5 and 4.6 show levels of information availability using the simple indicators like accessibility and availability of some useful information storage materials and equipment in the computerised management information systems. Prominent among such item and equipment are: computerisation described as electronic information and shown in Table 4.10, information retrieved from databases, easy retrieval and retrieval from central databases and access to web-based information. The respective values for each index is shown in Table 4.10.

Research Question 4

Do information generated for academic planning effectiveness in Nigerian universities by academic staff posses the quality of integrity, reliability, flexibility and adaptability?

Reliability is the incidence of relative absence of error from a set of data or measuring instrument (Kerlinger, 1993: 405). It could be described further as the accuracy and precision of data or information. Flexibility on the other hand can be described as the ability to use a set of data for another purpose for which it fits into. For instance, a census of students for matriculation purposes could serve as feeder to

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several other indices if the students name, department, faculty, matriculation number, sex are inserted etc. In this research question, lecturers' perception was mostly used as shown in Table 4.10. The Table showed equipment which teaching staff possess that persuades outsiders from the system that teaching staff in universities understand what information and its management is all about and how they go about it. Information can be said to be secure, possess integrity and flexible when its source is not questionable. Again, when the user is found to be well equipped and to utilise information equipment unassisted then we can be convinced that there is some level of effectiveness.

The indicator of Local Area network was introduced because it was one of the indicators used by world class universities in the assessment of their academic planning effectiveness as earlier cited in the literature. LAN is not exclusive to lecturers in those universities but from mere casual observation, it is not common in Nigeria hence item 5 in Table 4.10 scored LAN access at just 37% being a dismal performance. The implication is that such information resources of the respective universities as chat and e-post cannot be utilised except through the services of Internet Services Providers (ISP) and at that level, information security could be breached.

Table 4.10 - Perceived integrity of information generated in Nigerian universities by academic staff for academic planning effectiveness.

S/N	Question	Agree	Disagree	Total
1.	You are officially equipped with a functioning personal computer for your daily operations in the office.	408	405	813
2.	You have access to information processing equipment as printers, scanners, databases, CD - ROMS etc when ever required by you.	506	298	804
3.	There is full internet access in your office provided by your university to assist you to information or process them	441	372	813
4.	You can operate your computer without any assistance at all since you have received training on the use of computers	599	214	813
5.	You utilise the university LAN facilities for communication	118	686	804
6.	You utilise email for communication regularly with your students, colleagues and university officials	510	303	813

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Research Question 5

Is information reception and dissemination infrastructure uniform in Nigerian universities to positively influence academic planning effectiveness?

This research question was designed to find out the level of information equipment that conforms to modern educational and academic planning that are available in Nigerian universities. It is clear that all universities are not at the same level of infrastructural developmental though the NUC is moving toward that with the implementation of accreditations but it is obvious that it will be difficult for a third generation university to possess the infrastructure of a first generation university. While the possibility cannot be ruled out, the study made attempts to find out the level of differences in qualitative terms. Results in Table 4.12 were derived from the information extracted from the checklist, designed for Directors of Academic Planning units and Management Information Centres in the respective universities.

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Table 4.11 - Foundational levels of ICT preparedness in Nigerian universities.

S/N	Items of research	Fully operational in this university	Partially operational in this university	At planning stages in this university	No plans for this yet in this university
1	Level of computerisation and use of MIS for information dissemination in universities	UNIPORT	UI, UNN, ABU, ILORIN and BUK	-	-
2	Availability of full internet access in universities	UI, UNN, ABU, ILORIN, UNIPORT, UNIMAID and BUK	-	-	-
3.	Availability and stability of use of Local Area Network (LAN)	UI and UNIPORT	UNN, ABU, UNIPORT, ILORIN, UNIMAID and BUK	-	-
4.	Electronic preparation of students results and transcripts	UI, UNN, ABU, UNILORIN, UNIPORT, UNIMAID and BUK	-	-	-
5.	Fully operational university web and web portal	UI, UNN, ABU, UNILORIN, UNIMAID and BUK	UNIPORT	-	-
6.	Availability of e learning classrooms	UI, UNIPORT, UNILORIN	UNN, ABU, UNIMAID AND BUK	-	-
7.	Use of electronic smart boards as teaching materials	-	UI	UNN, ABU, ILORIN, UNIMAID, BUK	-
8.	Training programmes on ICT adoption for academic staff	UI, UNILORIN, BUK & UNIPORT	UNN, ABU & UNIMAID	-	-
9.	Training programmes on ICT adoption for non academic staff	UI, UNN, ABU, UNILORIN, UNIPORT, UNMAID & BUK	-	-	-
10.	Training programmes on ICT for students	UI, UNN, ABU, UNILORIN, UNIPORT, UNMAID & BUK	-	-	-

Source - *complied from research checklist by the researcher 2009*

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Results in Table 4.11 unveiled efforts made by universities in Nigeria at repositioning their academic environments to electronic information dissemination such as e - learning that could show their levels of ICT compliance for global best practices. Such practices go a long way to prepare the institutions for academic planning effectiveness. In the first instance, it displayed the facilities available in each university and the status in which they operate. The responses enabled some level of comparison. Table 4.12 showed the level of electronic infrastructural foundations for effective information management that can aid academic planning. For example, a facility that is not available at all cannot be upgraded or maintained while a facility or equipment that is available stands a good chance of been upgraded and utilized by all stakeholders.

The revelation tabulated in Table 4.11 shows at a glance, what a university is presently doing in terms of MIS infrastructure and the level varies from one university to another. The margin of variation among the variables chosen for the study is quite explicit. All universities claim access to full internet access but what the research could not explain is the efficiency of the internet in these universities. Though all the universities claimed to have electronic preparation of students lectures, it was observed that it was still at proposal stages those that claimed to be running it but with time such situations will change for the better.

Research Question 6:

What are the perceived evidences of successful academic planning effectiveness in infrastructure development among Nigerian universities in the management of information?

This research question was designed to find out the level of infrastructure for academic planning effectiveness in Nigerian universities. The perception of lecturers was elicited on the subject and produced in Table 4.13 .

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Table 4.12: Perception of university lecturers on Academic Planning Effectiveness (Infrastructure) in Nigerian universities

S/N	Questionnaire items	Classification of institutions	Target population	Response received	Agree	Disagree	% Agree	Mean %
1.	You received adequate orientation on assumption of duty as academic staff in this university.	First generation universities	388	368	181	187	49.1	44.5
		Second generation universities	427	422	169	253	40.0	
2.	You are aware that this university has good counseling programmes in place for staff and students.	First generation universities	388	369	245	115	68	64
		Second generation universities	427	406	257	169	60	
3.	Counseling services provided by the university in your perception is adequately utilised as information you gather from your interaction with students prove that.	First generation universities	386	360	100	260	27	30
		Second generation universities	427	423	143	280	33	
4.	Through your experience and observation, infrastructure for effective teaching and learning especially lecture rooms and classrooms are adequate	First generation universities	386	382	134	248	35	32.1
		Second generation universities	427	427	125	302	29.2	
5.	The classes you teach are well fitted with adequate/functional electronic gadgets for effective teaching/learning.	First generation universities	386	380	120	260	31.5	31.1
		Second generation universities	427	420	129	291	30.7	
6.	You are satisfied with your office accommodation because it is quite convenient for effective productivity	First generation universities	386	380	89	291	23.4	24.5
		Second generation universities	427	350	90	260	25.7	
7.	From your personal opinion, observation and experience you consider the level of academic planning in this university effective	First generation universities	386	364	287	77	78.8	87
		Second generation universities	427	427	407	20	95.3	
8.	You consider your department adequately	First generation universities	386	376	198	178	52.6	

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S/N	Questionnaire items	Classification of institutions	Target population	Response received	Agree	Disagree	% Agree	Mean %
	staffed in this university	Second generation universities	427	427	178	249	41.6	47.1
9.	Need is need to improve school curriculum to facilitate self-reliance after school in this university	First generation universities	386	377	346	31	91.8	94.1
		Second generation universities	427	426	411	15	96.5	

Table 4.12 was developed from respondents answers to items on research question 6 that summarised the perception of university teaching staff in Nigeria's first and second generation universities on the effectiveness of academic planning in their respective institutions using indicators generated.

There are some aspects of academic planning effectiveness that conflict with its constituents for example, while most lecturers perceive academic planning to be effective in their universities, items as adequate staffing, office accommodation, workload and orientation on commencement of work scored low. But others such as counseling services, and need for an improved and enriched school curriculum scored very high. In essence, lecturers want better educational curriculum that can help students to be self reliant. If the issue in item 9 in table 4.12 is to be taken seriously, it means that much needs to be done to improve academic planning effectiveness for stakeholders to get the type of education they appreciate. This is predicated on the fact that in a self study embarked upon by universities and their academic planning departments, answers to such questions provide lapses in the system. Take for instance, responses in items 8 and 9 in Table 4.12, it is known that there is acute dearth of qualified P.hD teachers in Nigerian universities but the perception of teachers fell below the accepted average. It was higher than expected and when compared to item 7 on the same Table, the response is dismal 87%, a very wide margin and gap. What could be responsible for this? This study was forced to believe that some of the respondents acted on impulse not willing to say something negative about their universities. When this is compared with item 9 on the same Table, it is clear that the conclusion on academic planning effectiveness of this study is not out of place.

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Table 4.13: Perception of students on academic planning effectiveness (Infrastructure) in Nigerian universities

S/N	Questionnaire item	Freshmen and Women						Final Year Students				
		Institutional classification	Target population	Response	Agree	Disagree	% Agree	Target pop	Res.	Agree	Disagree	% Agree
1.	The university library has enough materials for you to consult	First generation universities	1402	1400	1269	131	**90.6**	1320	1300	857	443	**66**
		Second generation universities	1940	1725	1391	334	**80.6**	1744	1690	890	800	**53**
2.	You are aware that the university has counseling services in place for students	First generation universities	1402	1376	1051	325	**76.3**	1320	1283	640	643	**50**
		Second generation universities	1940	1905	1463	442	**76.7**	1744	1689	815	874	**48.2**
3.	You made use of the counseling services at one time or the other for guidance	First generation universities	1402	-	-	-	-	1320	1320	640	680	**48.4**
		Second generation universities	1940	-	-	-	-	1744	1689	815	874	**48**
4.	Since you resumed as a student, seating infrastructure has been enough during classes	First generation universities	1402	1358	877	481	**64.5**	1320	1282	731	551	**57**
		Second generation universities	1940	1725	634	1091	**37**	1744	1699	926	773	**54.5**
5.	You are satisfied with the course you are admitted to read in this university	First generation universities	1402	1394	1086	308	**77.9**	1320	1298	761	537	**58.6**
		Second generation universities	1940	1940	1456	484	**75**	1744	1700	1067	633	**62.7**
6.	You are satisfied with the practicals and industrial works	First generation universities	1402	-	-	-	-	1320	1298	761	537	**58.6**
		Second										

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S/N	Questionnaire item	Freshmen and Women						Final Year Students				
		Institutional classification	**Target population**	**Response**	**Agree**	**Disagree**	**% Agree**	**Target pop**	**Res.**	**Agree**	**Disagree**	**% Agree**
	you are exposed to in this university.	generation universities	1940	-	-	-	-	1744	1700	1067	633	**62.7**
7.	You have received adequate orientation after admission	First generation universities	1402	1399	1301	98	**92**	1320	-	-	-	-
		Second generation universities	1940	1930	1791	135	**93**	1744	-	-	-	-
8.	You have secured a place of employment to report to after studies; not the mandatory NYSC.	First generation universities	1402	-	-	-	-	-	1275	516	759	**40.4**
		Second generation universities	1940	-	-	-	-	-	1695	676	1,019	**40**
9.	You are presently residing in the university hostel accommodation provided for students in the halls of residence	First generation universities	1402	1389	1002	387	**72**	1320	1287	903	384	**53.1**
		Second generation universities	1940	1920	732	1187	**38**	1744	1598	1,062	636	**66.4**
10.	You plan to come back for a postgraduate Programme in this university	First generation universities	1404	-	-	-	-	1320	1302	621	681	**48**
		Second generation universities	1940	-	-	-	-	1740	1710	960	750	**56**

Pop - Sampled Population, A - Agree D - Disagree and %A - Percentage Agree

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Table 4.11 emerged from analysis of responses to questions raised on research question 6 that looked at the effectiveness of academic planning in Nigerian universities. The results indicated different levels of perceived academic planning effectiveness by both university teachers and students from which the study made inferences on first and second generation universities in Nigeria.

The variables looked into by students infrastructure include; library services, counseling services for students, classroom accommodation availability and sufficiency, satisfaction with course admitted to read, satisfaction with mode and method of teaching, possibilities of employment after school for final year students, prospects of school after first degree and hostel accommodation adequacy. Responses and differences exist among first and second generation universities. As explained, such responses enable world class universities assess themselves in a self study and make amendments.

Research Question 7

What administrative plans are discernible to update students, lecturers and non - academic staff computer skills capacity for proper positioning for effective use of information in academic planning effectiveness in Nigerian universities?

Table 4.14 showed what obtains in all universities sampled on the average. The Table showed plans being prepared to teach computer skills that facilitates management of information to stakeholders of the system.

Table 4.14 Respondents perceived evidences of training by Nigerian universities in ICT to influence contributions to academic planning effectiveness among university lecturers and undergraduates

		Freshmen/women					Final Year Students					Lecturers					Directors			
S/N	Item	Pop	Res.	A	D-	% A	Pop.	Resp	A	D	% A	Pop	Res	A	D	% A	Pop	Res.	D	% A
1.	Plans to teach computer skills	3342	3273	1659	1614	50.7	3064	2968	1177	1791	39.7	813	804	699	105	86.9	14	14	0	100
2.	Level of computer skills already acquisition	3342	3287	2351	936	71.5	3064	1597	1425	52.8	813	800	599	214	74.8	14	14	14	0	100

Pop - Sampled Population, A - Agree D - Disagree and %A - Percentage Agree

Table 4.14 revealed available level of skills each category of the respondent possessed before now. Most freshmen out of the 71.5% that claim proficiency of skills in computer acquired

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such before coming to the university. A common practice today is to find students acquiring computer skills in anticipation of admission. The possibility of generating or utilising information can only be effective when stake holders are able to handle the equipment provided effectively. Directors and academic staff are the people aware of plans to teach them skill acquisition in computers.

4.8 Test of Hypotheses

Hypothesis 1

There is no significant relationship between management of information (generation) and academic planning effectiveness in Nigerian universities

Table 4.15 tested the relationship between Management of Information - Generation (IG) and Academic Planning Effectiveness in Nigerian universities. The purpose is to find out whether a positive relationship that is significant exists among the two variables (Dependent and Independent) variables as applied to the position of the Directors in the respective institutions sampled.

Table 4.15: Relationship between MIS - Information Generation (IG) and Academic Planning Effectiveness (APE) for Directors of Academic Planning/ICT in Nigerian universities

Variables	N	Mean scores	Std deviations	Std Error	df	R	Sig
IG	14	14.5000	2.53438	0.14908			**
APE	14	10.0714	4.85900	0.11703	11	0.734	0.000

P<0.05

The results indicated in Table 4.15 that a significant relationship exists between MIS-IG and APE for Directors of academic planning/ICT in Nigerian universities with an MIS-IG mean score of 14.5000, APE mean score of 10.0714, a df of 11 at r=0.003; P< 0.05

A similar treatment was given to information collected from other stakeholders as lecturers (Academic Staff) and students as shown in tables 4.17, 4.18 and 4.19 to ascertain the relationship between MIS-IG and APE in the respective universities.

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Table 4.16: Relationship between MIS - information generation (IG) and academic planning effectiveness (APE) of freshmen in Nigerian universities

Variables	N	Mean scores	Std deviations	Std Error	df	R	Sig
IG	3,269	31.3539	5.55332	0.14908			**
APE	3,269	16.1653	4.66448	0.11703	3,264	0.277	0.000

P<0.05

Table 4.16 shows the relationship between information generation (IG) and academic planning effectiveness (APE) for freshmen in Nigerian universities. The results indicate that mean scores for IG = 31.3539 while the mean score for APE = 16.1653, r = .277 and df = 3,264. The result shows that there is a significant relationship between information generation and academic planning effectiveness for freshmen at 0.000 when P< 0.05.

Table 4.17: Relationship between MIS - information generation (IG) and academic planning effectiveness (APE) of final year students in Nigerian universities.

Variables	N	Mean scores	Std deviations	Std Error	df	R	Sig
IG	3,064	34.0091	6.86248	.17554			**
APE	3,064	25.2895	7.53173	.19492	2,993	0.266	0.000

p<0.05

Table 4.17 shows the relationship between IG and APE for final year students in Nigerian universities. The results indicate that mean scores for IG = 34.0091, APE = 25.2895, r value = 0.266. There is a significant relationship between IG and APE for final year students at 0.000 when p< 0.05

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Table 4.18: Relationship between MIS - information generation (IG) and academic planning effectiveness (APE) of academic staff in Nigerian universities.

Variables	N	Mean scores	Std deviations	Std Error	df	R	Sig
IG	813	109.2601	18.65354	.94171			**
APE	813	85.6489	10.99640	.54992	783	0.321	0.000

P<0.05

Table 4.18 shows the relationship between information generation and academic planning effectiveness for academic staff in Nigerian universities. The results indicate that the mean score IG = 109.2601, APE = 85.6489 indicating a significant relationship at r = 0.321 and significant at 0.000 when P< 0.05.

Hypothesis 2

There is no significant relationship between management of information (availability) and academic planning effectiveness in Nigerian universities.

Table 4.19 tested the relationship between Management of Information - Availability(IA) and Academic Planning Effectiveness (APE) in Nigerian universities. The purpose is to find out whether a positive relationship that is significant exists among the two variables (Dependent and Independent) variables as applied to the position of the Directors in the respective institutions sampled. The same treatment applied to Academic staff, students in 100 and 400 levels in the universities that were represented on Tables 4.19, 4.20, 4.21

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Table 4.19: Relationship between MIS-information availability (IA) and academic planning effectiveness (APE) for Directors of academic planning/ICT in Nigerian universities.

Variables	N	Mean scores	Std deviations	Std Error	df	R	Sig
IA	14	4.2857	2.2857	0.07953			**
APE	14	10.0715	4.83900	0.11703	11	0.840	0.000

p<0.05

The results in Table 4.20 reveals a significant relationship exists between IA and APE for Directors of Academic Planning/ICT in Nigerian universities. IAC has a mean score of 4.2857 and APE 10.0715. The relationship at r = 0.840 at P<0.05 is significant at 0.000 hence IA contributes significantly to APE.

Table 4.20: Relationship between MIS - information availability (IA) and academic planning effectiveness (APE) of fresh students in Nigerian universities.

Variables	N	Mean scores	Std deviations	Std Error	df	R	Sig
IA	3,269	12.0553	3.14547	0.07953			**
APE	3,269	16.1653	4.66448	0.11703	3,259	0.260	0.000

P<0.05

Table 4.20 showed the relationship existing between IA and APE for freshmen and women in Nigerian universities. The result showed that the mean score for IA is 12.0553 and that of APE is 16.1653, r = 0.260 indicating that a significant relationship exists between information availability (independent variable) and academic planning effectiveness (dependent variable) at 0.000 when p<0.05

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Table 4.21: Relationship between information availability (IA) and academic planning effectiveness (APE) MIS - final year students in Nigerian universities.

Variables	N	Mean scores	Std deviations	Std Error	df	R	Sig
IA	3,064	25.7581	4.84048	0.12501			**
APE	3,064	25.2895	7.53173	0.19492	3,030	0.327	0.000

p<0.05

Table 4.21 shows the relationship existing between IA and APE for final year men and women in Nigerian universities. The result implied that the mean score for IA is 25.7561 and that of APE is 25.2895, r = 0.327 indicating that a significant relationship exists between information availability (independent variable) and academic planning effectiveness (dependent variable) for final year students at 0.000 when p<0.05

Table 4.22: Relationship between MIS - information availability (IA) and academic planning effectiveness (APE) of academic staff in Nigerian universities.

Variables	N	Mean scores	Std deviations	Std Error	df	R	Sig
IA	813	25.7581	6.96718	0.34723			**
APE	813	85.6489	10.99640	0.54992	807	0.443	.000

P<0.05

Table 4.22 shows the relationship existing between IA and APE for Academic staff in Nigerian universities. The result reveals that the mean score for IA is 25.7581 and that of APE is 85.6489, r = 0.443 indicating that a significant relationship exists between information availability (independent variable) and academic planning effectiveness (dependent variable) at 0.000 when p<0.05

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Hypothesis 3

There is no significant relationship between management of information (utilisation) and academic planning effectiveness in Nigerian universities.

Table 4.23 tested the relationship between Management of Information - Utilisation(IU) and Academic Planning Effectiveness (APE) in Nigerian universities. The purpose is to find out whether a positive relationship that is significant exists among the two variables (Dependent and Independent) variables as applied to the position of the Directors in the respective institutions sampled. The same treatment applied to Academic staff, students in 100 and 400 levels in the universities that were represented on Tables 4.23, 4.24 and 4.25 respectively

Table 4.23 Relationship between MIS - information utilisation (IU) and academic planning effectiveness (APE) for Directors of academic planning/ICT in Nigerian universities.

Variables	N	Mean scores	Std deviations	Std Error	df	R	Sig
IU	14	14.2143	2.63639	0.09660			**
APE	14	10.0714	4.85900	0.11703	11	0.636	0.015

p<0.05

Table 4.23 revealed that a significant relationship between IU and APE for Directors of academic Planning and ICT in Nigerian universities from the correlation results. Mean score for IUC is 14. 2143 and APE is 10.0714, r = 0.636 and significant at 0.015 at P< 0.05.

Table 4.24 Relationship between MIS - information utilisation (IU) and academic planning effectiveness (APE) of fresh students in Nigerian universities.

Variables	N	Mean scores	Std deviations	Std Error	df	R	Sig
IU	3,269	18.6156	3.8620	0.09660			**
APE	3,269	16.1653	4.66448	0.11703	3,263	0.262	0.000

p<0.05

Table 4.24 shows the results of the relationship existing between IU (independent variable) and APE (dependent variable) for freshmen and women in Nigerian universities. The result indicated that the mean score for IU is 18.6156 and that of APE is

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16.1653, r = 0.262 showing that a significant relationship exists between independent variable and dependent variable at 0.000 when p<0.05

Table 4.25: Relationship between MIS - information utilisation (IU) and academic planning effectiveness (APE) for final year students in Nigerian universities.

Variables	N	Mean scores	Std deviations	Std Error	df	R	Sig
IU	3,064	15.5089	4.18337	0.10779			**
APE	3,064	34.2875	7.53173	0.19492	3,041	0.321	.000

p<0.05

Table 4.25 showed the relationship existing between IU and APE for final year men and women in Nigerian universities. The result shows that the mean score for IU is 15.5089 and that of APE is 34.2875, r = 0.327 indicating that a significant relationship exists between information utilisation (independent variable) and academic planning effectiveness (dependent variable) for final year students at 0.000 when p<0.05

Table 4.26: Relationship between MIS information utilisation (IU) and academic planning effectiveness (APE) of Academic staff in Nigerian universities.

Variables	N	Mean scores	Std deviations	Std Error	df	R	Sig
IAC	813	85.7192	11.56753	0.57985			**
APE	813	85.6489	10.99640	0.54992	796	0.505	.000

p<0.05

Table 4.26 indicates the relationship existing between IU and APE for Academic staff in Nigerian universities. The result reveals that the mean score for IU is 85.7192 and that of APE is 85.6489, r = 0.505 indicating that a significant relationship exists between information availability (independent variable) and academic planning effectiveness (dependent variable) at 0.000 when p<0.05.

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Hypothesis 4

Management of information (generation, information availability and utilisation) capacities have no significant composite influence on academic planning effectiveness in Nigerian universities.

The intention of Tables 4.27 was to find out the joint or composite influence of the independent variables on the dependent variables by all stakeholders. The same treatment using multiple regression analysis was applied to other stakeholders in Tables 4.27, 4.28 and 4.29 respectively as it applied to academic staff and students in the respective universities.

Table 4.27: ANOVA and Model summary of multiple regression analysis on MIS(IG, IA, IU) and APE for Directors of Academic Planning/ICT in Nigerian universities.

Model	Sum of squares	df	Mean square	F	Sig.	Remarks
Regression	237.830	3	79.310			
Residual	68.989	10	6.900	114.94	0.001	significant
Total	306.929	13				
			p<0.05			
R =0 .880 R square = 0 .775 Adjusted R = 0.708 Standard error of estimate = 2.62676						

P<0.05

Table 4.27 show multiple regression correlation value of p=0.001;p<0.05. Independent variables IG, IA and IU jointly contribute to APE for Directors of Academic Planning in Nigerian universities. The analysis show R = 0.880, R square = 0.775, Adjusted R = 0.708 and Standard error of estimate = 2.62676. To verify this, a regression ANOVA was conducted and produced $F_{(3,10)} - 114.94$; p<0.05

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Table 4.28: ANOVA and Model summary of multiple regression analysis on MIS (IG, IA, IU) and APE for freshmen and women in Nigerian universities.

Model	Sum of squares	df	Mean square	F	Sig.	Remarks
Regression	2089.913	3	696.638			
Residual	16102.085	3251	4.953	140.651	0.000	significant
Total	18191.999	3254				

R = 0.339
R square =0 .115
Adjusted R = 0.114
Standard error of estimate = 2.22553

P<0.05

Table 4.28 also shows multiple regression correlation coefficient value of P = 0.000 < 0.05 indicating that all independent variables contribute jointly to the independent variable, Academic planning effectiveness with $F_{(3,3251)}$ = 0.339. The results indicate that a relationship exits between independent and dependent variables with R = 0.339, R square = 0.115, Adjusted R = 0.114. This result shows that the independent variables jointly account for the variations in academic planning effectiveness. To verify this, a Regression ANOVA was used and it produced $F_{3,3251}$ - 140.651, P<0.05 alpha level rejecting the null hypothesis and accepting the alternate hypothesis.

Table 4.29: ANOVA and Model summary of multiple regression analysis on MIS (IG, IA, IU) and APE for final year men and women in Nigerian universities.

Model	Sum of squares	df	Mean square	F	Sig.	Remarks
Regression	6804.058	3	2268.019			
Residual	35375.459	2927	12.086	187.658	0.000	Significant
Total	42179.517	2930				

P<0.05

R = 0.402
R square =0 .161
Adjusted R =0.160
Standard error of estimate = 3.47648

Table 4.29 shows the multiple regression correlation coefficient value of P = 0.000 < 0.05 indicating that all independent variables contribute jointly to the independent variable, Academic planning effectiveness for final year men and women in

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Nigerian universities with $F_{(3,2927)}$ = 0.402. The results indicate that a relationship exits between independent and dependent variables with R = 0.402, R square = 0.161, Adjusted R = 0.160. This result shows that the independent variables jointly account for the variations in academic planning effectiveness. To verify this, a Regression ANOVA was used and it produced $F_{3,2927}$ – 187.658 @ P<0.05 alpha level rejecting the null hypothesis and accepting the alternate hypothesis.

Table 4.30: ANOVA and Model summary of multiple regression analysis on MIS (IG, IA, IU) and APE for Academic staff in Nigerian universities.

Model	Sum of squares	df	Mean square	F	Sig.	Remarks
Regression	8176.270	3	2725.410			
Residual	17865.363	773	23.112	117.923	0.000	Significant
Total	26041.583	776				
P<0.05						
R = 0.560 R square = 0.314 Adjusted R = 0.311 Standard error of estimate = 4.80746						

Table 4.30 shows the multiple regression correlation coefficient value of P = 0.000 < 0.05 indicating that all independent variables contribute jointly to the independent variable, Academic planning effectiveness for academic staff in Nigerian universities with $F_{(3,773)}$ = 0.117.923. The results indicate that a relationship exits between independent and dependent variables with R = 0.560, R square = 0.314, Adjusted R = 0.311. This result shows that the independent variables jointly account for the variations in academic planning effectiveness. To verify this, a Regression ANOVA was used and it produced $F_{3,773}$ - 117.923 = 0.000 @ P<0.05, rejecting the null hypothesis and accepting the alternate hypothesis.

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Hypothesis 5

Management of information (generation, availability and information utilisation) capacities have no significant relative influence on academic planning effectiveness in Nigerian universities.

Table 4.31 Relative contributions of influence of MIS (IG, IA, IU) to APE for Directors of Academic Planning/ICT in Nigerian universities.

Variables	Unstandardised coefficients		Standardized coefficient Beta	t	sig
	β	Std error			
Constant	-7.100	.7.071		-1.004	0.339
IG	0.637	0.393	0.332	1.622	0.136
IA	1.121	0.575	0.539	1.946	0.080
IU	0.220	0.411	0.120	0.536	0.604

P< 0.05

Table 4.31 shows the relative contribution of each of the independent variables to the dependent variable for Directors of Academic planning/ICT in Nigerian universities. IG, IA and IU are significant contributors at 0.000 when P< 0.05. The standardized coefficient values indicate the levels of relative contributions with IG contributing 33.2%, IA = 53.9% and IU = 12.0% to academic planning effectiveness.

Table 4.32 Relative contributions of influence of MIS (IG, IA, IU) to APE for freshmen and women in Nigerian universities.

Variables	Unstandardised coefficients		Standardized coefficient Beta	t	sig
	β	Std error			
Constant	3.051	.250		12.225	0.000
IG	0.154	.016	0.182	9.900	0.000
IA	0.188	.035	0.123	6.128	0.000
IU	0.150	.025	0.123	6.081	0.000

P< 0.05

Table 4.32 shows the relative contribution of each of the independent variables to the dependent variables for final year students in Nigerian universities. IG, IA and IU are

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significant contributors at 0.000 when P< 0.05. The standardized coefficient values indicate the levels of relative contributions with IG contributing 18.2%, IA = 12.3% and IU = 12.3% to academic planning effectiveness for freshmen and women in Nigerian universities.

Table 4.33 Relative contributions of influence of MIS (IG, IA, IU) to APE for final years students in Nigerian universities.

Variables	**Unstandardised coefficients**		**Standardized coefficient Beta**	**t**	**Sig**
	β	**Std error**			
Constant	8.191	0.402		20.390	0.000
IG	0.131	0.021	0.124	6.463	0.000
IA	0.281	0.032	0.180	8.875	0.000
IU	0.384	0.034	0.213	11.270	0.000

P< 0.05

Table 4.33 shows the relative contribution of each of the independent variables to the dependent variables for final year students in Nigerian universities. IG, IA and IU are significant contributors at 0.000 when P< 0.05. The standardized coefficient values indicate the levels of relative contributions with IG contributing 12.4%, IA = 18.0% and IU = 21.3% to academic planning effectiveness for final year students in Nigerian universities.

Table 4.34 Relative contributions of influence of MIS (IG, IA, IU to APE) for academic staff in Nigerian universities.

Variables	**Unstandardised coefficients**		**Standardized coefficient Beta**	**t**	**sig**
	β	**Std error**			
Constant	20.304	1.322		15.364	0.000
IG	3.907	0.022	0.063	1.754	.0000
IA	0.446	0.055	0.270	8.963	.0.000
IU	0.343	0.038	0.349	8.121	0.000

P< 0.05

Table 4.34 shows the relative contribution of each of the independent variables to the dependent variables for academic staff in Nigerian universities. IG, IA and IU are

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significant contributors to APE at 0.000 when P< 0.05. The standardized coefficient values indicate the levels of relative contributions with IG contributing 6.3%, IA = 27.0% and IU = 34.9% to academic planning effectiveness by academic staff in Nigerian universities.

4.9 Summary of findings

This summary of the salient findings are as follows;

1) Significant relationship exists between Management of Information Generation and Academic Planning Effectiveness in Nigerian universities from Directors of APU/ICT through to academic staff and students. This implies that MIS-G is necessary for the proper functioning of the university system and must be given attention.
2) Significant relationship exists between Management of Information Availability (MIS-A) and Academic Planning Effectiveness in Nigerian universities from Directors of Academic Planning Units and ICTs to Academic staff and Students.
3) Significant relationship exists between Management of Information Utilisation (MIS-U) and Academic Planning Effectiveness in Nigerian universities.
4) That MIS-Generation, Availability and Utilisation have combined and relative influences on Academic Planning Effectiveness in Nigerian universities.
5) The levels of MIS-Generation based on the perception of stake holders include; Directors of Academic Planning and ICT in Nigerian universities - 100%, Academic staff 93%, fresh undergraduates - 94.7 and Final year students - 70.5%. Since the study adopted 50% as the average pass mark, it was concluded that information generation in Nigerian universities is high when disaggregated but an aggregated perspective still shows that the directors posses all information but APE draws an aggregated information index to academic planning with New students contributing 37% aggregate to information arriving in APU, Lecturers-36% and final year students contributing an aggregate of 27% .
6) Indicators for MIS-Availability showed that the level of information available to stake holders was also significant and average (See Table 4.7)

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7) MIS-Utilisation was considered significant taken with academic planning effectiveness as the capacity to utilise information was tested using multiple regression analysis. Its indicators were that Directors utilise 100% information generated and require more from other sources while lecturers utilise 57.5% of information generated and available, fresh students utilise 74.5% of information generated and available while final year students utilise less than average which is 40%. In this regard, Directors information utilisation is High, Lecturers - High, Fresh Students - High and Final year students - Low. On an aggregated perspective, it was observed that Freshmen and women utilise 64%, Lecturers, 27% and Final year students utilise just 11%.

8) Academic planning effectiveness could be described as follows from findings in Tables 4.13 and 4.14;

Orientation services - Academic staff 44.5% (low), Students 92.5% (High)

Infrastructure - Academic staff (Low), Students (Low)

Accommodation - Low

Curriculum - Average

4.10 Discussion of Findings

Managing Information (Generation) for Academic Planning Effectiveness in Nigerian Universities

Table 4.2 - 4.5 explained the levels of information that is generated in our universities by different categories of stake holders. The study found out and revealed that Directors of Academic planning generate as much as 100% information, academic staff in first generation universities generate 97% and in second generation universities 89%. It was further found out that fresh undergraduates in 100 level in first generation universities generate as much as 95% information in first generation universities and 94.7% in second generation universities. Final year students in first generation universities generate as much as 73% information while their counterparts in second generation universities generate 68%. This result derived from Directors of academic planning and ICT can be understood in the light of the fact that they are responsible for information gathering, collation and analyses in the university. Information so derived are

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often used to advice the university on critical issues. Again, the functions of the Academic Planning units requires that they request for information from faculties, Departments and Centers in universities. With the level of expectation from within and outside the universities, it is expected that the offices of the Directorate of Academic Planning/ICT initiate request for information from all stakeholders for effective planning and administration (Ojedele and Ilusanya, 2006). The Management of Information as applied to generation by staff and students cumulatively is 100% that passes to the APU/ICTs that confirms the claim. The APU/ICTs are custodian of information though APE does not yet appear near perfect much information is generated confirming the findings of and relevance of Barnes (1966) in the USA that electronic MIS is a must for functional organisations.

In the observation of Barnes (1966), generated information under MIS (manual) had the following challenges that includes how to store the generated material, secondly how to locate documents and items when we want to retrieve them, it was for these reason that the MIS became a viable option. In the process of ensuring academic planning effectiveness, information is indispensible. A further look at Tables 4.10 and 4.11 indicated that there was perception variance by stakeholders on certain item variables in the universities, for examples, the infrastructural variables examined varied from one university to the other. There was a high perception variance between first and second generation universities based on the findings of this study. Table 4.9 showed that there were differences in infrastructural provision between first and second generation universities. The revelation from the Tables indicates that the academic planning units has much to be done in planning for and providing adequate infrastructure. In Table 4.10, academic 65% of the academic staff of first generation universities disagreed that infrastructure for effective teaching and learning was available. In the same vein, 70.9% of academic staff of second generation universities attested to the fact that infrastructural facilities for teaching were enough. This result agrees with the findings of Adeyemi and Uko - Aviomoh (2004), Akpochafo and Fellio (2006) and Babalola (2010). It further established that there was some level of difference between infrastructural development in first and second generation universities although the result from the same Table 4.10

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infers that 67.9% of Nigerian lecturers in first and second generation universities agree to the poor infrastructural facilities in the environment.

Deriving from the above, a comparison was made to empirically see the relationship that existed between generation of information and academic planning effectiveness using the Pearson correlation coefficient. It was observed that the relationship between Directors information generation and academic planning effectiveness in Table 4.15 was significant at 0.734; $p<0.05$. Also the relationship between information generation and academic planning effectiveness for freshmen and women in Table 4.16 was also significant using the same test for lecturers and final year students of Nigeria universities. The result tested significant indicating that the perception of stake holders is uniform that information generation is very important to academic planning effectiveness. Why is academic planning effectiveness perceived ineffective by all stake holders? The answers may not be far fetched. In most Nigerian universities sampled, the researcher went through various faculties to elicit questionnaire responses and observed that 100 level students that were holding lectures in large auditoriums often received their lectures with a larger percentage outside the lecture halls. It was further observed that lecturers were not equipped with Public Address Systems (PAS) and where the halls were equipped with PAS, there was no electricity to operate them. The implication as observed was that most students outside the lecture halls were passive about the lectures that were being received.

Why is academic planning perceived effective in Table 4.11 by academic staff and perceived ineffective through the indicators used for measurement? An inference from consultations with stakeholders through discussions reveal that most respondents did not want to be pessimistic hence findings are at variance with reality. A variable said to be effective became ineffective. It is expected that if the items leading to a conclusion is negative, the cumulative effect to the conclusion will be negative. There is need to examine reasons why this is so. Factors affecting information generation in Nigerian universities could be inferred from the challenges facing information generally in the Nigerian environment. Studies embarked upon by Nwankwo (1981), Ekwere (1990), Adimorrah (1993) and Babalola (2010) observed that much information was generated in

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Nigeria but the capacity to store such information was lacking especially in universities though such studies were not targeted with academic planning effectiveness.

General challenges facing information management in Nigeria include poor infrastructure that affects all universities (Ali, 2009 and Babalola, 2010). Wonnacourt and Wonnacourt (1977) and Aminu (1982) were fast to point out that any plan based on suspect date or herusitics was bound to fail. Nigerian universities fall short of infrastructure for good information management. Though academic planning units and MIS units are adequately equipped, such equipments are limited in quantity and quality compared to the general information requirements of the larger university community to store and retrieve information for academic planning purposes as and when due. The universities can afford to spend heavy money to purchase equipment for those units whose cost demands are relatively high but quantity effectively demanded of such items by the universities are low.

The Academic planning units in universities comprise of few numbers of staff. Their requirements in quality may be high but the quantity of what they need cannot be as high as those required by a faculty. The relative contributions of information generation to academic planning effectiveness in Table 4.28 is 13.6%.

Management of Information Availability in Nigerian Universities

The study established using Table 4.7 the following;

(i) Storage methods of information used for planning especially for lecturers, students and Directors.
(ii) Availability of databases where information is downloaded or uploaded
(iii) Availability of a central database system
(iv) Availability of university websites and portals with access to staff and students.

Tables 4.18 - 4.20 established the correlation between information availability and academic planning effectiveness. Tables 4.26, 4.30 - 4.33 explained the relative and joint contributions of information availability on the one hand to academic planning effectiveness and its share in the combined influence. Figure 4.1 and 4.2 showed

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graphically the levels of information availability to academic staff and final year students in Nigerian universities.

The study established that in both first and second generation universities, 71% of lecturers store information in electronic formats, while 66.7% have personal databases. Only 52% can access data in the university central database system and only 40.7% can access university websites and web portals from their offices. For students, only 32% of final year students store their information in electronic formats while no first year has such a facility. 18.5% of final year students have personal databases in electronic formats, 77.1% of freshmen can access the university web portal (from cyber cafes or personal modems) and 40% of final year students do same. 65% of freshmen agreed that they can access the university portal while 24.87% of final year students agree that they do so.

On the correlation between information availability and academic planning effectiveness, the study observed that there is a significant relationship between information generation and academic planning effectiveness for Directors of academic planning units and ICTs, academic staff and students. Information availability is $r = 0.840$; $p < 0.05$ for Directors, 0.505 at $p<0.05$ for academic staff, 0.260 for fresh students and 0.327 for final year students. Information availability is very significant to academic planning effectiveness. The tests further showed that IA contributes 53.9% to the effectiveness of academic planning of Directors, contributes 27.0% to effectiveness of academic planning of academic staff, 12.3% to the academic effectiveness of fresh undergraduates and for final year students18.0%. It is true that information availability is quite related to academic planning effectiveness.

The foregoing findings agree with the work of some scholars. Though most of the scholars studied worked on the relationship between information and other issues, Haiman (1976) was able to establish the importance of information to the general principles of planning and in this study applied to academic planning. Haiman et al (1976) in his work on information and general planning was able to draw out several forms of planning styles that could be used by educational planners in different occasions. In this study, the research was able to investigate the level of infrastructure in these universities using a checklist. The result is sumarised in Table

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4.9. The Table shows that MIS has not been integrated into all the universities. The universities operate both the manual and electronic MIS at the same time. The reason for this is not unconnected with the submissions of Ali (2009) and Babalola (2010) who found out that funds and infrastructure for such operations were currently unavailable to Nigerian universities. It must be noted that in Nigeria, funding is graded with several criteria. First generation universities share much of the funds while second generation also get a higher percentage and third generation get a particular percentage as dictated by the NUC (Babalola, 2003) others get their own up to fourth and fifth generation universities. It could be imagined that if the situation of first and second generation universities is like this with the levels of funds available to them, how will it be for other generations of universities particularly state owned universities. This is clearly seen why the conflict between the NUC and many of these universities who are often accused of exceeding their limits.

The study was able to show the integrity of available information to be reliable from the perspective of stakeholders as it relates to academic planning effectiveness. Reliability as used here simply indicates the incidence of relative absence of error from a set of data or information provided. It could be further explained that reliability of provided information has the ability to enhance accuracy and precision of decisions. Also, the study showed that available information in databases were flexible as they possessed the ability to be converted for use for another purpose to which it fits, for instance, a census of students for matriculation purposes will indicate several indices of the students such as name, department, faculty, matriculation number, sex etc. At the end of matriculation, such data could be used to allocate students to hostels since some of the required information are embedded in the former. Such actions make information flexible. It was further discovered that generated information made available could be adaptable. Adaptability in this sense meant changing the orientation of a set of data and such data still obtain accurate result using the same set of data or readjusting the data to fit into new situations. Haiman et al (1976:509) stated that data is used for predictions, decisions and recommendations. This agrees with the submissions of Wolfgang (1966). Haiman et al (1976) explained that prediction could be subdivided as follows;

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Persistent Prediction: Persistent prediction is the correct fore telling of future events. For example, if a university's carrying capacity is only 420, academic planning effectiveness should be able to predict what would happen if we admit over 420 student and could even state with some level of accuracy the extent of damage and destruction such action will impact on the system. Another one is;

Cyclic Prediction: This explains the regularity of the occurrence of a prediction. Looking at the university system, seasoned administrators and planners ought to be able to observe national trends and predict their effects. For example, an excess of admission over carrying capacity will bring in its trail several consequences that will bring undue pressure on the system. With emerging policy options from the Federal government of Nigeria, it ought to be possible for administrators and planners to predict pressures that will impact on infrastructure due to infringements on policy. It is possible to ascertain and predict with accuracy the minimum and maximum impacts of wrong policy choices. To maintain quality and quantity in the schools system, cyclic predictions are necessary. Another predictive index is the trajectory prediction principle.

Trajectory prediction: This is a predictive principle in which one event leads to another something close to cause and effect relationship. The foregoing discussion clearly shows that data integrity is important and must be well ascertained other wise we would be planning with fact that leads to failure, chaos or a static situation (Wolfgang, 1966).

To establish data integrity in this study, the study made use of the responses obtained from Nigerian universities lecturers. Their opinion was sought using probing questions that could ascertain the integrity of data used. The directors of ICT and academic planning unit responses were not used as they are very likely to score high. Lecturers in the university system can be likened to the engine of a car, they are the driving force behind all academic and supervisory works in the university system hence their responses are considered more appropriate for this research question. Also, students opinion was not sought on the issue as most of them will not understand what data integrity means and the purpose for which the study seeks their opinion but the lecturers are in a position to appreciate the study hence their responses are considered important.

From Table 4.9, it is seen that, availability and access to the internet is described by the authorities of the institutions as full but responses from lecturers and students in

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Tables 4.7 showed that the universities could possibly have established websites and web portals but how accessible are they? Only few percentages of staff and students get access to these portals and where it is done, it is with much rigour. Isah and Ayeni (2010) were able to point out that most universities in Nigeria, in a bid to transform to world class universities and also beat accreditation deadlines with the NUC commission usually purchase these equipments without adequate preparation with the result that the equipment often malfunctions. In a survey from www.factoids.org African higher Education: Students Project; it was reported that the cost of internet access to US universities per MbPs/month is $120.00 while the same access cost to a university in Sub Saharan Africa is $13,000.00. The same document stated that cost of internet access in Sub Saharan Africa per Mbps/month if communication cables to Sub Saharan Africa were operated with regulated return on investment is $250 but present cost to a Sub Saharan Africa university to buy the same bandwidth as a U.S. university (1 Gbps) is $13 million / month.

Other aspect visited by the study are:

1. **Local Area Network (LAN):**

Local Area Networks (LAN) are useful in organisational communication systems. What is LAN? Botto (1999) described LAN as 'a number of computers connected together so that users can share resources as directories, application services as printers and modems. The importance of LAN according to CISCO network solutions (2002) include the fact that it gives low cost of operation, has a robust technology, low maintenance for infrastructure and reserves the ability to accommodate expansion and an upgrade. University of Maryland (2002) observes that other advantages of LAN over wide area Network (WAN) is that LAN segment servers, facilitates fair scheduling of tasks and shared resources, it is capable of resolving congestion analysis for wireless infrastructure and does performance enhancement. Over the years, most universities have found the use of LAN very helpful particularly for internal communication purposes. Abels, Liebscher and Dennman, (1996), also gave reasons for the use of LAN in organisations particularly university environments. Abels et al, (1996) said that the uses of small network or localised networks are common to organisations like universities that

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share the characteristics of having interlocking nature of information. They also explained that all networks, big or small require pools from where they can draw information from commonly referred to as data bases. They further explained that all organisation often use two types of network, LAN or WAN or both which is in line with all universities sampled in Nigeria. Both networks perform the same operation but at different levels and technical topologies. While LAN is confined to the boundaries of the organization, WAN is not. LAN facilitates efficiency in organizations and maintain corporate information integrity.

This study sought to find out the level of LAN and WAN availability in Nigerian universities as information resources and tool. Table 4.9 indicated that exposure to LAN in Nigeria universities covers an average of 21.3% and only staff. The implication is that only administrators in the universities central administrations are connected to LAN specially to share information and resources. A very few section of the academic staff, 15% have access to LAN facilities. It is suspected that those exposed to university LAN are in the categories of senior professors who are also directors of schools, Directorates or Deans of faculties. The general body of academic staff, Head of Department (HoDs) are excluded. From a target population of 813 academic staff 797 responded to the question while only 118 claimed to have access and utilize LAN. A core implication of this is that information flow within the system is not perfect but there is evidence of prevalence of WAN. Rudimentary knowledge in information and communication studies show that staff and student do not need any one or any assistance to get these services these days because of its prevalence every where through Internet Services Providers (ISP).

In Table 4.9, only two universities claimed to fully utilize LAN facilities, they are, the Universities of Ibadan and Port Harcourt. The two universities share some common information characteristic as both are recognised by McArthur Foundation of America as development centres for information technology in Nigeria. The third university with such facilities in Nigeria is the University of Abuja that did not fall within the category for sampling. The importance of LAN and WAN in university environment cannot be over-emphasised because it aids teaching, learning and research hence basic

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knowledge of computer and the internet is important. The trend should be encouraged in Nigerian universities.

2. **Electronic processing and documentation of students result and transcript**

The Nigerian universities sampled all indicated 'partially operational electronic student result and transcript preparation processes. Ali (2009), explained the case of BUK and admitted that the university senate only approved the ICT/MIS unit of the university handling students result and transcript preparation in 2006/2007 academic session. At BUK, Ali (2009), that doubles as director for ICT and MIS of the university agreed that the functions of the MIS unit among others include;

- Collection and processing of staff and student personal, official and academic records.
- On-line registration formalities and processes for all categories of students.

Though BUK has been effecting the function, it is yet to fully complete it. The state of student transcript preparation in other universities is not different from what obtains in BUK. In some other universities, it was observed that rather than concentrating on the collation, coordination and storage of data, the MIS units is involved in the processing and distribution of identity cards to staff and students; a function which ought to be effectively handled by the student affairs unit of any university or by external consultants except for security reasons. Though some universities in Nigeria appear to have advanced far beyond the manual MIS, some require individual students supplying them the same manual information over and over again before giving the students electronically processed information on transcript. The method adopted for doing this is to request students to go to the faculties and departments where they graduated and there after collect their data which will be passed to the examinations and records sections of those universities and there after fed into the data base. While it can be vouched for the university of Ibadan that electronic processing of students transcript has almost been completed for the years 1990 to date, request for any transcript beyond 1989 graduation date will take a Herculean task as it is boldly inscribed in the university exams and records section that 'all request for transcript beyond 1989 should collect forms to the department from where they graduated to complete and be returned to the exams and

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records section by the department (not the student) which can still be regarded as neat but difficult, cumbersome and time consuming but in some universities, recent results are not even seen and students and graduates are left to their fate after several and repeated trials and failure those students give up the search. Such students loose the opportunities they're seeking with not one to actually hold but it shows that the MIS in such universities is in critical danger. It is such practices that result into forgery by students when the students become frustrated and the universities have no means of verification except to deny the students incase of external request for verification. This study is of the opinion that detailed progress on the state of MIS in each university be spelt out in university accreditations. University accreditation panels will only be playing Ostrich to assume that seeing just a small compliance with policy indicates that all is well. If this is emphasised, the universities and the units will sit up to become more efficient.

3. **Operational University Websites and Portals**

A website is a creation of server and software that support the server side applications and data of web applications. Servers and websites usually contain components and web addresses that contain address such as www.server.com. (Botto, 1999). A web portal is a subset of a website (Isah, 2007) since a website can contain several portals depending on the purposes the web portals are to serve. All Nigerian universities attest to having fully operational websites. What is the function of websites and web portals? They inform the world through web pages and servers of events in the organisation. Creating web portals has become fashionable globally because it keep the world informed of happening in the hosting organisation. To verify the claims made by Nigerian universities that they have fully functional websites, this study visited all sampled universities websites on 20th April, 2010 with the following revelations;

1) All sampled university websites visited were actively functional and showed evidence of good management and good update. Some university websites contained details of their bulletins on line from 2007 till date especially the university of Ibadan.
2) University portals for admission, registration, students information were active and well updated.

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3) Some universities are still constructing some aspects of their websites and portals though they were active.

4) Some of the website visited had automated record of visitors but some important information especially in respect to researchers of information considered not dangerous as enrolment, financing, faculty and departmental information that ought to be found in the web portals by researchers from any part of the world were conspicuously missing. This shows that though universities have relatively complied with the NUC guideline on ICT and the national information technology policy (NITP), a lot remains to be done.

4. **E-learning classrooms**

Asongwa (2007), describes e-learning as a technology that allows learners to learn anytime and from every location across the world. The study further explained that the operation of e-learning as facilitated with the availability of ICT equipment includes; the use of computers, interactive video, radio and network systems. Close to this assertion is the statement of Hawkridge (1990), schools can be changed for the better using computers. (Starr, 1998), referred to electronic learning as the virtual classroom while Dreyfus (1998), observed that e-learning brings about interconnections of knowledge.

Table 4.25 show 3 universities claiming fully operational e-learning classroom being available to them while others attest to partial operation of e-learning classroom. The advantages of e-learning classrooms are many. Onwuma, (2007) itemised such advantages to include;

- Accelerating students basic skills in the mastery of school subject especially in mathematics and the sciences.
- It challenges students to learn independently (a needed remedy in Nigeria's educational system)
- Updates student academic knowledge and instructional practices with interactions with students and lecturers from other parts of the world.
- Provides teachers with effective and efficient tools to take care of students individual differences in the classroom.
- Provides opportunities for cooperation with colleagues through networking and internet services.

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- Challenges educators and learners to new methods of acquiring knowledge through knowledge sharing and connections to the global virtual and digital world.

Asongwa (2007), finally submitted that though the equipment that facilitate e-learning are available in Nigeria, they are mostly for commercial purposes in business centres and cybercafés. They are not found in schools and academic settings where they are most needed. E-learning is still very novel to Nigeria. It is the observation of this study that school and universities that claim that they are fully operational on e-learning are being economical with the truth. Many of the created e-learning classrooms are only seldomly used. Though the study will not out rightly condemn those universities it is important to note that very recently Aborisade (2010) reported that students of the national Open university of Nigeria (NOUN) decried the situation of e-learning in the university whose foundation and policy setting rests upon e-learning. The students complained that the Ibadan centre had in its enrolment a student population of five thousand but had computers in its e-learning classrooms numbering just fifty but the university is adopting the e-examination system with the result that since the year 2009, the university had not graduated any student since it could not perfect the e-examination system and with shortage of necessary infrastructure. The same as is in NOUN also applies to other universities. This study is of the opinion that policy reforms are critically necessary in this area.

5. **The use of Smart boards in Nigerian Universities:**

Smart boards are used in modern universities and are ICT materials that make teaching and learning easier. They share similar advantage as indicated by (Asongwa, 2007). Table 4.25 shows that only one first generation university is trial testing it in Nigeria while others claim to be planning how to introduce it. In essence 86.7% of Nigerian universities are yet to trial test it even though they love it. Smart boards facilitate understanding between lectures and students since lecture material have already been placed on CD-ROMS, and power point software of hard disk drives of desktop computers and laptops.

There are likely to be hindrances and obstacles to the adoption and trial testing of the use of Smart board in our universities. Some of the problems include; unwillingness

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to change and test new methods of doing thing. Fadipe and Adepoju (2009:490) see change as "a process through which new programmes or practices, techniques and approaches are put in place and/or injected into the operations of a system to replace old or ineffective ones". Alimba (2009), identified factors that bring about changes in education referred to commonly as change drivers to include; technology internationalisation, globalization etc as external drivers of change but internal drivers of change are usually induced from the environment. The change from chalk board to Smart boards have the factors identified by Alimba (2007), in Nigeria but many are resistant to the change because, some are still not confident and comfortable with the introduction of computers to education and such are unwilling to change and might resist such changes if in position of authority. Another factor that could hinder the adoption of the use of Smart board is the financial implication that may be considered high in an economy in which education is heavily subsidised by government.

6. **ICT training programmes in Nigerian Universities:**

The importance of training in any endeavour is best illustrated in Babalola (2009:21) expression to "encourage and invest in functional literacy education". Other scholars who have advocated the necessity of training in ICT in our universities include Okunlola (2009), Ali (2009), Ayeomoni and Bilabi (2008). Automation of task ICT has become the vogue in modern educational administration and planning and require training all those who will be involved in the use of its materials such as student, lecturers and non academic staff. Babalola and Jaiyeoba (2008), were among scholars that observed that the digital revolution had taken a global dimension and schools and universities curriculum must alter in that direction. With the changing global event, external and internal drivers to change staring us in the face there must be training in ICT. Table 4.28 show that all Nigerian universities indicate that there is full operation training in ICT going on. This is not too far from the truth as deduced from table 4.15 where lecturers and students have a higher proportion of ICT skills than available ICT equipment. University training programmes have prepared customised software for their activities for example preparation of student result - Grade Point Average (G.P.A) which used to be manual has been automated in a way. Again, some universities have automated students registration (undergraduate and postgraduate), preparation of staff salaries have

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been automated and where they have not been fully automated, they have been partially automated. There is a general requirement that staff, students and non academic staff be trained on the different ways of using such software. Where personnel for such training are not available in universities, expert consultants are hired to do the training. (Ali, 2009) listed the various types of training programmes run by Bayero University, Kano (BUK) ICT center in conjunction with the University administration to include:

- Intensive computer training (literacy) for BUK student
- Summer computer training for wards of staff members of the university
- Intensive computer training for senior staff of the university (academic and non academic staff)
- Computer training for typist and secretaries of the university
- Intensive computer training for university library staff
- Computer training for bursary staff
- Training the trainers programmes

This list appears in exhaustive as the study found out that at the university of Ibadan, the university ventures organises training programmes regularly for any one within and outside the university community on the use of computers and charges fees that ultimately form part of the university internally generated revenue (IGR).

Information utilisation capacities in Nigerian universities

The capacity to utlise information in Nigerian universities is subject to the availability of equipment and skills for that purpose. Table 4.6 clearly distinguished the various capacities for information utilisation between the various stakeholders in first and second generation universities. In the modern era, a good equipment for effective academic work is the ownership of a computer why? It serves as the tool to generate data, process data, utilise data and facilitate communication (Folorunsho, 2003). It was discovered that all Directors of Academic planning/ICT are fully equipped with functioning computers 100% inclusive of its accessories. Tables 4.6 - 4.9 clearly showed the various levels of information equipment and its processing abilities. In Table 4.7, 4.8 and 4.9, it was established that academic staff have 50.2% equipment to process

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information while fresh students have 52.5% and final year students 44%. The study further shows that access to internet connectivity by academic staff is 54.3% while that of new students is 51.3 and that of final year students is 39.4%. It may look ridiculous that students' have more access to computing facilities than lecturers. The investigation proved it wrong. While students can access information equipment through business centres and cyber cafes, lecturers own their own equipment. It could be deduced that there is almost no difference between first generation and second generation universities on the items investigated in this section for example, while freshmen in first generation universities claim 53.4% ownership of computers, their counterparts in second generation universities claim 52% ownership. Final year students in first generation universities claim to own 43% computers and their counterparts in second generation Nigerian universities attest to either own computers or have access to the use of computers by sixty (60%). Several factors could account for these claims. Though average ownership of computers in this study appear to be higher than what obtained previous studies. Though there is an improvement in facility acquisitions the rise is insufficient as it cannot facilitate 100% response at any particular time by stakeholders and such there will be shortages in whatever information that is required. However, the rise must have been due to some of the factors listed below that have positive contribution to academic planning effectiveness:

1. Over the years, the average income of the Nigerian university worker has been on the increase thereby increasing the chances to own a computer. It is for this reason that each successive study observes increases in computer ownership which is good for the educational system and academic planning in general in universities.
2. Global competition and international opportunities are limited to any university academic staff that is not computer literate or ICT complaint. For this reason, university lecturers go through any hardship to own and access ICT equipment in Nigeria. In some universities, the traditional blackboard and chalk is giving way to smart boards and the use of e-learning facilities. It is clear that computer literacy has become a condition of employment.
3. Volumes of information that need to be well handled are daily generated by university staff and as such information need to be properly managed at different

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levels of management. Though the organisation provides experts to handle institutional and organisational information, the lecturer needs the organisation of his personal information and hence must be information literate.

4. Most international and research libraries have gone virtual. Any university student who is still computer illiterate may not be able to excel in his academic pursuit in this millennium.

5. Information communication technologies (ICT) equipment producing companies and firms are in experiencing keen competition to claim edges in the market leading to crashes in prices computers and computer accessories and hence enabling more people access their products. Again the extensive research that has been going on in that area has made it possible for some materials to be sold off the shelf to give room to new products enable more purchases and access due to price reductions of older versions.

6. Several banks and cooperative societies inclusive of the federal government of Nigeria have been encouraging people to own computers through soft loans or multiple payments guaranteed by either organisations or government agencies. The fact remains that ownership and access to computers can accelerate academic planning effectiveness such that anyone who is computer literate can easily perform the following tasks; personal access and to request for information, respond to request for information that involves maintaining office ethics through information confidentiality, browse the internet, thereby uploading and down loading materials both to and from others and respond to urgent information needs on-line. These are activities that take place in little or no time.

2. Access to information processing equipment and skills

Tables 4.7 - 4.10 give a general average of 65.7 of access to information processing skills and equipment in universities. It is more acceptable as it is well known that Directors of ICT, and academic planning having more ICT equipment than they require. A Director has such facilities as scanner, computers (Desktop and Laptop) photocopier access to university ICT server and other internet service providers (ISPs) and would always claim 100%. Their submissions from observations on the field are true.

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But the essence of this study is not only to examine top management but to find out the process by which information reaches the top.

Table 4.10 indicates that 65.7% of the universities community have access to information processing equipment and that 54.35% of the community have access to information processing equipment and skills. A view of table 4.10 shows that there is almost no difference between what happen in first generation and second generation Nigerian universities on the subject of access to information, why? A cause for the difference according to this investigation is relative need. For example, a department cannot function adequately without a scanner or a computer printer while it is mandatory for the Department to own one provided by the university, it is not mandatory to provide for each lecturer. It is for this purpose that LAN is very useful. Most lecturers prepare their works and patronize roadside business centres to print.

3. **Availability of full internet access:**

The results show that much access to the internet is still needed in Nigerian universities as lecturers only have 50.3% access, freshmen 52.1%, final year 38.5%. The general average obtained still falls below 50% indicating poor internet access. A reason why fresh students have much more access to the internet than lecturers is not far fetched. Students patronize cybercafés locate all around university campuses while lecturers prefer to use the ones located in their offices or the ones provided by the university ICT or by commercial ISPs. Where these are not available, lecturers appear stranded and at times frustrated which is a negative to academic planning effectiveness. under the condition just mentioned, academic planning could be adversely affected because required information will not be timely as students and lecturers will not be current with needed information or supplied with information as and when due. This study observes that though the Federal Government of Nigeria made adequate plans for the provision of internet in various institutions, its effectiveness is questionable.

4. **Availability of LAN facilities for useage:**

LAN as an ICT instrument gained prominence several years back due to its cost effectiveness to organisations. Artkins and Norris (1996) described it as an interconnectivity of terminal to terminal over short distances enabling the sharing of information and at the same time enhancing the information security (IS) of the

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organisation. Artkins and Norris (1996), further argued that LAN can be safer imposed over WAN to cover large distances and at a lower cost to organisations. This study looked into the availability of LAN in Nigerian universities and was able to observe that only 15% of the university was covered by LAN (Local Area Net works). There is no difference between first generation and second generation universities. In the opinion of this investigation, LAN facilities in Nigerian universities are only assessable to very high administrators and academics of the rank of professors and directors. It is likely that the facility is not applicable to all professors. What could have informed this very low useage of LAN in our universities as students have no access to it all? This study is of the opinion that policy makers are yet to fully understand the need to liberalise its useage into the university communication system as it is cost effective.

5. **Utilisation of e-mail facilities for communication**

It is the view of this research that every one in the university community at this period of global digital revolution possess an e-mail account and address. The revelation from this study is worrisome because, opening an e-mail account cost almost nothing except the facilities that assist in opening such account like using a cyber cafe. It was observed that communication by e-mail obtained a paltry 59% dispute it popularity. Most disturbing is the 24% usage obtained from final year student and 98% by freshmen. Some factors likely to have accounted for this wide disparity include the fact that admission formalities in virtually all Nigerian universities take place outline and such all freshmen must open e-mail account with addresses to facilitate admission and registration formalities. At final year, much communication is done manually or by the universities as final year students only look forward for participation in the National Youth Service Corps (NYSC) scheme which require organizational communication and a regular check at the intending youth corpers institutional website or the NYSC website to get further directives. It is not yet know whether universities contact their students by e-mail hence after first year, it is likely that student loose their email account. This revelation speaks poorly of our system.

Turbman, Mclean and Wetherbe (2007) explains that the web revolution emphasises networking, discovery, communication and collaboration to which these final year students are missing out. This finding agrees entirely with Okhiria (2007), who

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observed that the poor exposure of Nigerian student to their counterparts from the advanced world keep our graduate less competitive several years after completing university education. The effect of this revelation is two fold. It show that communication between management and it community is still highly manual hence most of its student see no reasons why they should maintain email accounts. The second is that such students have not been adequately positioned for the challenges awaiting them after school. It is a short coming on our academic planning system that needs to be addressed.

Tables 4.24 - 4.34 were able to show the relationship that exists between information utilisation and academic planning effectiveness. The Tables explained that a significant relationship exist between information utilization and academic planning effectiveness at 0.05 level of significance. The test also indicated that the relative contribution of information utilization by the various categories of stakeholders were 12% for Directors, 34% by academic staff, 12.3% by new under graduates and 21.3% by final year students. What are the factors responsible for these levels of contributions? Academic staff with the highest contributions to academic planning effectiveness will not be unconnected with their direct impact with students and as such are able to assess the true state of academic planning effectiveness. Directors make plans and such their evaluations could be at variance with the objective of this study influencing their scores to the items raised while students' perspective arises from their perception.

Academic Planning Effectiveness in Nigerian universities

Findings of this study on academic planning effectiveness can be seen in Tables 4.13 and 4.14. The study analysed the perception of stakeholders on some key item variables on academic planning that included: lecturers perception of effectiveness of academic planning in universities since they interact most with students and can evaluate students abilities in the cognitive, affective and psychomotor domains. Perception of students on availability, adequacy and utilisation of infrastructure. The study investigated the correlation existing between information generation, information availability, information utlisation and academic planning effectiveness. Among key items in infrastructure investigated by this study were; library facilities, counseling facilities,

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accommodation facilities for staff and students, effectiveness of teaching methodologies, prospects for future life after university education and self reliance. Further to this, the study established the relationship of academic planning effectiveness to generation of information, availability of information, utilisation of information with their combined and relative influences.

It was observed that perception of Directors of Academic Planning on the effectiveness of academic planning in Nigerian universities was 100% as all of them indicated that the items listed were effectively planned for though it was not the case with academic staff perception on the same issue. Academic staff perceived that academic planning was effective at 87%. First generation universities academic staff scored the item 78.8% while second generation university lecturers scored the item 95.3% but Nigerian universities students were not tested directly with such a question as their responses to other items enable the research item get its inference.

35% of first generation universities lecturers in Nigeria agreed that infrastructure for effective teaching and learning was in place while 29.2% of second generation universities lecturers attested to that. In essence, 65% and 71% respectively of first and second generation academic staff are saying that facilities for effective teaching and learning are not there. This finding are not different from Adeyemi and Uko- Aviomoh (2004), Akpochafo and Fellio (2006) and Babalola (2010). Other findings of this item include the fact that an average of 86% of fresh students attested to the adequacy of library facilities in their respective universities while 58% of graduating students attested to same. 76% of new students claimed awareness that their universities had counseling services but only 49% of outgoing students had such claims. There was similarity between the number of outgoing students who claimed to be aware of universities counseling services and those who utilised the services. 32% of lecturers claimed that the classes they taught were well equipped and 68% claimed that the classes were ill equipped with teaching and learning resources. 64.7% of first generation universities agreed to adequacy of sitting infrastructure in classes for first year undergraduates while for final year students it was 57% but for second generation universities it was 37% and 54.5% respectively.

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On other issues in the study of academic planning effectiveness as orientation services for staff and students, the following findings were observed; 49.1% of academic staff in first generation universities claimed to have received orientation on assumption of office while 40% of second generation universities claimed the same. In essence, 50.1% of first generation academic staff received no orientation on assumption of office, while 60% of second generation universities received no orientation on assumption of office. For students, an average of 92.5% of first year students interviewed agreed that they received orientation before commencement of academic work for the session while final year students did not respond to the item probably as it was considered irrelevant to them. Similar world class universities understudied in the process of this research (Isah and Ayeni, 2010), it was observed that orientation is tagged 'settling down'. It is a core aspect of academic planning in the world class universities investigated. In such universities admissions into any programme or recruitment into any level of employment is not embarked upon once in any session but several times. There are various periods for resumption for several programmes and students unlike what obtains in Nigeria where all universities resume academic work at a particular time. The higher education regulators in those countries perform their duties that includes supervision while governance and management of higher education is liberalized (Erwat, Isah and Fabunmi, 2008).

University admission is an all year round event hence orientation for fresh students and academic staff is a continuous exercise. The study was able to point out that orientations enable genuine interaction between new staff and their principals who inform new students and staff of their rights, privileged and limitations. The effectiveness of academic planning can be imagined in Nigeria where a majority of university lecturers receive no orientation. A visit to the official websites and Portals of most world class universities display the following information in their academic calendars; date of resumption for new students, returning students in each semester and dates for orientation.

Findings on the relationship between academic planning effectiveness and the independent variables – Management of Information (generation, availability and utilisation)in Tables 4.16 - 4.34 indicated that all independent variables tested significant to academic planning effectiveness. Again, the independent variables displayed

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significant relative and joint contributions to effectiveness of academic planning in Nigerian universities.

It could be rightly inferred that academic planning is not in anyway effective when compared to the activities of world class universities as some indicators from those universities show for example, in the world class universities according to Isah and Ayeni (2010) and a similar study by Babalola (2010), orientation services are such that students and staff are taking on excursion round university campuses and facilities. Orientation to service or to settling down in school is a very important function of management and administration of organisations. It is crucial and important to tertiary institution and universities to enable new students and new staff settle down in any endeavour. It is for this reason that most universities conduct orientation programmes more than once in a given session.

According to DFAN Orientation Services (2009), America's top ten universities that comprise of the universities of Harvard, Princeton, Yale, California Institute of Technology in Cambridge Massachusetts, Stanford University, University of Pennsylvania, Dartmouth University, Hanover and University of Columbia run orientation programmes annually in their universities to address; Getting settled that involves how new students get settled down on campus and go about activities that will dictate their future in that university. University academic calendar; enables students and staff to understand the dynamics of the university system through their academic calendar; Health services: involves full assistance and how to go for medical assistance when distressed health wise since health could impair academic performance. Career services; when in need of career advice and counseling; Presentations**:** to receive instruction and information on presentations at all level in the university; Graduate school orientation programme designed for local and international students orientation to settle down. The foregoing is for students, but where the orientation is for academic staff, the same universities give orientation to staff on;

- Sexuality: The intrigues and occurrence of sexual harassment or sex discrimination
- Teaching: Presentation of lectures inclusive of the nature and extent of student/lecturers interactions

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- Student services
- Human resource and employment

The purpose of orientation is to acclimatise the new entrant either staff or student with the best practices of the organisation. Orientations are organised and executed as part of university activities in a given year. Orientation programmes are held in high esteem all over the world by universities as in most cases it prepares the principal and the client for their first interactions and expectations on both sides. Also, Nigerian universities hold orientation programmes in high esteem. In Table 4.13 and 4.14, 92.5% of freshmen took part in orientation programmes and agreed that they were well informed about their university programmes before they commenced full blown activities. In the USA for instance, orientation is a university programme that features talks, workshops, lectures etc. for staff and who ever is to be acquainted with the details being transmitted. 44.5% of lecturers interviewed accepted taking part in one orientation programme or the other immediately after employment organised for them. The simple deduction from their response is that an average of 55.5% of Nigerian lecturers and administrators hardly acclimatise early to their jobs. It may account for reasons why attrition rate of academic staff is high as many are not aware of their limits and what academic freedom is all about and so often overstep their bounds as soon as they assume office and loose the same jobs they secured not knowing the consequences of the actions they took.

Another reason that may have accounted for the high attestation by freshmen to participation in orientations programmes could be due to the fact that almost all freshmen and women in Nigerian universities resume their academic pursuit and calendar at the same time hence holding orientation for fresh students give pleasure to administrators and the students especially first generation universities. The same is not the case for second generation universities that often have several batches of admission with the university matriculation often been the decider of when admission ends and at that time orientation has ended.

University academic staff are not as privileged as university undergraduates because majority are not employed during mass recruitment. The implication of isolated employment is that academic staff use trial and error method before adjusting to university guidelines and ethics of operation. Examples of the USA top 10 universities

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are handy as they hold several orientations in a given year. These orientations are planned and budgeted for in the university's annual budget and included in the university calendar so that anytime any student or lecturer arrives, he can participate in an orientation programme. In such cases, the staff or student is easily adapted, settled, acclimatised and sets in motion the actual pace to work.

In a study of the University of Massachusetts in the USA, the authorities were definite on the space levels for academic staff offices and student accommodation both in the classrooms and accommodation. Other aspects/indicators for academic planning effectiveness included; transportation and communication facilities on campus. World class universities often review teaching facilities and methodologies to which instruments have been designed to collect responses from both incoming and out going students. The purpose is to ensure and enhance continuous improvement in effective lecture delivery.

While it cannot be argued that such facilities are absent in most universities in Nigeria, this study adapted some of the indicators obtained in those universities for example, the study sought the opinion of academic staff on office accommodation and the opinion of students on students accommodation for effective academic work. The findings showed in the area of office accommodation that Nigerian university lecturers were unanimous in disagreeing with adequacy of office accommodation provided. In the world class universities, dimensions of offices and accommodation are displayed to the knowledge of all but most times accommodation is a luxury in Nigerian universities. There are some essential services and provisions in universities that create effective study environments for learning, teaching and research that are often backed and supported by policy and sometimes they are not. Some of the provisions backed by policy include issues like university accommodation for undergraduate and post graduate students. In Nigeria today, most government owned universities especially those run by states appear to pay less attention to the provision of accommodation on campus and this study observes that in such disciplines as the medical, basic medical sciences, natural sciences, technology and pure sciences, residing in university accommodation helps improve students academic performance positively because of the long hours usually spent in practical classes in the laboratories and workshops.

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Nigeria has experienced tremendous growth in university establishments and admissions in recent years without a corresponding growth in infrastructure such as hostels and classrooms infrastructure (Osinowo 2001 Citing Fadairo, 1984) observed that there were excess congestion in some undergraduate halls of residence at the University of Ibadan and that also applied to the university of Lagos. According to Osinowo (2001), congestion results in stress, failing health and other allied health hazards.

Closely related to the above finding was that the stress arising from over crowed students accommodation led to the development of aggressive tendencies to ward off the effect of the stress associated with overcrowded hostel accommodation. The statement of Osinowo (2001) can be a lead to reasons why cultism developed in many universities in the recent years rapidly to the consternation of university administrations. As can be observed, overcrowding of classrooms, overcrowding in hostel accommodation have become a source of frustration to both lecturers and students. There are minimum standards of hostel accommodation prescribed for Nigerian universities.

Furthermore, Mbat (2000), Akpochapo and Fellio (2006), at different times agreed that university admission rate has been on the increase in the last few years. In Table 4.33, only 55% of fresh undergraduates' clamed to reside in university accommodation while 57% of final year undergraduates were so accommodated. In some universities, the accommodation policy provides for 40% accommodation with priorities being accorded fresh students, final year undergraduates, medical students, sportsmen and women and physically challenged students. For several reasons as shown in the study of (Osinowo, 2001) many students and parent shun university hostel accommodation.

On the other hand, university academic staff appear dissatisfied with the quality of office accommodation and infrastructure given to them. For instance in Table 4.13 item 6, only 24.5% of lecturers, agreed that they were satisfied with the office space and furniture provided them because in most universities as observed during the study, junior academic staff are usually paired in two's, three's or fours and above in their offices with the result that such offices lack privacy, security and the general decorum/ ethical conduct required by academics to effectively carry out their duties. On staffing, 47.1% of academic staff were satisfied with the level of staffing in their departments as several

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practical and official indicators show that university academic staff are overworked in Nigeria, such indicators can include;

1) Overflowing lecture halls and theatres easily observable without any research arising from insufficient manpower and desire to up hold quality by utilizing a single lecturer.
2) Payment for overtime services known as 'excess work load capacity to lecturers' This means a job that ought to be done by four lecturers may be done by one and so he is compensated for the excess work because the authorities are unwilling to employ more hands. Finally, 94.1% of university lecturers agreed to the need for modification in university students' education curriculum.
3) On a closer intimate discussion with some lecturers, it was observed that some lecturers felt dissatisfied with the system (Administration) as they were unable to proceed on Sabbatical leave due to the extreme low staff strength of their respective departments. To see a 52.1 disagreement over staff adequacy shows the level of dissatisfaction and it is one area that Planners must look into.

Viewing this study, it could be safely concluded that policy execution deficiencies especially in the area of academic planning effectiveness in Nigerian universities is not due to either inadequate information, its availability or utilisation but other factors which are not the focus of this study. Most administrators fail to remain firm in the face of intimidating demands from politicians and acquaintances hence at times, they exceed approved limits.

Again, there appears to be an excess of demand over education supply in Nigeria placing undue pressures on institutional administrators. Complaints by stakeholders may not be unconnected with the widened access to educational facilities due to the liberalization of education in the new Millennium in Nigeria bring about private investment in education. With increased enrollments and increase in the number of institutions, effective and efficient supervision of institutions is poor due to low infrastructure.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents a summary of the investigation into the Management of information as predictors of academic planning effectiveness in Nigerian universities. It also gives the conclusion and recommendations for policy makers.

5.1 Summary

This study investigated the management of information (generation, availability and utilisation) for the prediction of academic planning effectiveness in Nigerian universities. The study examined the problems and challenges associated with information and its management especially the generation of such information and the relationship that exists among the three independent sub variables and single dependent variable (academic planning effectiveness) used for the study. The study was premised on stakeholders' complaints of non-compliance by Nigerian universities to agreed quotas and limits thereby reducing standards and quality in university graduate production in Nigeria. The study investigated perceived non-compliance to the university system's lapses in information management in terms of information generation, availability and utilisation especially as it relates to academic planning in universities.

The study raised and answered seven research questions and tested five hypotheses. Five hypotheses were tested using the correlation analysis and multiple regression analysis.

The study adopted the survey research design of the exposed facto type while adopting the multi stage sampling procedure. It adopted the purposive sampling technique to select seven out of Nigeria's thirteen first and second generation universities. Target population consisted of Directors of Academic Planning and ICT in Nigerian universities, lecturers and students. The research questions were able to unveil the pertinent issues involved in each sub topic while the hypotheses gave a good account of the degree of relationships among the variables. The universities sampled for the study included the universities of Ibadan, Lagos, Nsukka, Benin, Obafemi Awolowo and Ahmadu Bello University. Others are the universities of Calabar, Ilorin, Jos, Kano,

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Maiduguri, Port Harcourt and Sokoto. The study ensured that it sampled at least one university from each of Nigeria's six geopolitical zones.

The study was able to show that Nigerian universities generate information at all levels but the availability is not as much as the generation. Principal reasons for these were that most universities in Nigeria fall short of funds to meet standards especially as it relates to ICT infrastructure which determines in modern times the effectiveness of teaching and learning. The utilisation of information was also observed to be average as access to channels for storage and capacity acquisitions where low. Infrastructure in all fronts as pertained to Management of information were found to be low in some cases and high in others impacting negatively on the effectiveness of academic planning. Finding on infrastructure that is considered important to the study which other scholars had at one time or the other hammered on, needed improvement. Academic planning effectiveness, though relatively high, low and average, was observed still needed much to be done especially in the provision of infrastructure.

There is the need to improve on students' academic welfare; counseling and orientation services should be stepped up in all universities especially for staff. Students did not feel comfortable with the levels of training they were exposed to while lectures advocated for a review of students curriculum to enhance self reliance after school.

In respect to information processing infrastructure, and foundation for ICT, the study observed that Nigerian universities have created websites and web portals as the case might be but the functionality of these web sites was questionable. Also, it was discovered that ownership of information processing equipment was at low ebb. Again, most universities do not practice full MIS but most still combined the electronic and the manual MIS.

The hypotheses of the study cumulatively revealed significant relationships between Management of information (generation, availability and utilisation) of information and academic planning effectiveness as the correlation 'r' was 0.734 for Directors, 0.321 for academic staff, 0.277 for freshmen and women and 0.266 for final year students at 0.05 alpha level. The respective results in the order indicated above are in the Tables. The independent variables also displayed significant multiple relationships

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with the dependent variable while there was significant relative contributions of each of the independent variables to the dependent variables.

5.2 Conclusion

The study arrived at the following conclusions from its findings;

Arising from the need to investigate academic planning effectiveness, this study embarked on an examination of older Nigerian universities of the first and second generation stock to find out its level of preparedness for challenges in this 21st century. The study used the Management of Information (generation, availability and utilisation) being a current requirement for ranking universities world wide and contributes to the repositioning of tertiary institutions to test the effectiveness of academic planning. In the process, Management of information was correlated with academic planning effectiveness to establish that a relationship exists or not. The study raised and answered seven research questions and tested five hypotheses at $p<0.05$ level of significance. The study utilised the survey research design and adopted the multi stage sampling procedure to select 7,160 respondents across the six geopolitical zones in Nigeria.

The study revealed that universities teaching staff possessed an aggregate information generation capacity of 37%, fresh students generate 36% and final year students possessed aggregate contribution to academic planning effectiveness of 27%. It was further discovered that universities teachers in Nigeria possessed an aggregate utilisation capacity of 64% of information and its contribution to academic planning effectiveness. In the same vein, it was observed that fresh students utilise an aggregate of 25% and final year students, 11%. Other revelations included that university teachers enjoyed 71.7% access to information.

The study found out that some challenges were being experienced by universities in the area of information infrastructure. Many universities had not completely adopted the computerised management information systems. LAN and adoption of smart boards for teaching were almost completely not existent in all the universities studied. If the situation be so with first and second generation universities, then, it could be imagined

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what it is for states and private universities whose funding cannot match the first and second generation universities.

The study observed that the independent variable contributed significantly to academic planning effectiveness in Nigerian universities hence its absence could impact negatively on academic planning effectiveness. It was revealed in the study that the independent variable (Management of information) and its sub variables (generation, availability and utilisation) jointly and relatively contributed to academic planning effectiveness. Levels of contribution of MIS (generation, availability and utilisation) to academic planning effectiveness varied among stakeholders though the aggregate contribution is what was presented in the preceding paragraphs. In the main study report; Directors, lecturers and students had high contributions in the management of information, in other aspects - average while in some others, low.

5.3 Recommendations

In view of the investigations, findings and discussion in this study, the following recommendations are hereby suggested to enable the independent variables impact more on academic planning effectiveness;

1) The computerised MIS should be adopted by all Nigerian universities. Its adoption should not be optional hence this study strongly recommends that the FGN and the NUC come up with a policy (done in 1990 but not enforced) that will enforce the adoption of the computerised MIS in all universities. The study discovered that among the federal universities, Information capacity utilisation was low and availability epileptic due to poor, unmaintained and sometime outdated equipment/infrastructure hindering the success of academic planning. The study recommends that accountable funds be approved by the NUC for this purpose. It is advisable that proper monitoring be done by the NUC and from the perspective of this research should be one of the items for accreditations.
2) This study, strongly recommends the IT training be provided for all categories of stake holders on the use of computerised MIS in the universities. For lecturers, computer literacy should be adopted as one of the skills that must be acquired to

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move to a particular level. It should be adopted to assist teaching and learning. The infrastructure should not only be provided but policy must enforce compliance. For students, the skill must be enforced and a course like the GES (General Studies) introduced that students must compulsorily take. IT laboratories should be provided. While this study appreciates the enormity of the cost, government must enforce them for a better future.

3) Most universities are yet to adopt the uniform information policy in line with the FGN policy on IT. Internal policies must be consistent and comply with established national policy especially as it relates to IT and the universities. This study is also of the recommendation that the FGN should establish without further delay an ICT that will enforce compliance of all government institutions to comply with IT and ICT as it has become the issue globally.

4) Nigerian universities lecturers should be empowered to purchase information processing equipment without stress on their incomes. Government or school authorities should provide soft loans to teaching staff which can be deducted from source over time. The current practice is that teaching staff obtain loans either from finance houses or cooperative societies. The practice of soft loans will encourage teaching staff to adopt computerised MIS.

5) To assist students, government and school authorities should provide well furnished computer laboratories with up to date softwares in the departments and faculties that students can access. The current practice is that there are computer laboratories but the infrastructure is few and cannot go round. Again, periods of use are limited to when the provider allows. It is observed that because of high cost of maintenance, access to these equipment is restricted. This study is recommending that access be expanded. It can be done through provision of security for the laboratories.

6) Expansion of access should of necessity be complemented with provision of infrastructure as office accommodation, employment of more academic staff and provision of teaching and learning equipment.

7) There should be regular policy reviews with self study conducted by the academic planning units of universities. Obsolete courses should either be reviewed or

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removed from the universities for example, in this Millennium, some first and second generation universities still have the Department of History while others have modified theirs to Department of Diplomatic studies or International relations. It is clear that such institutions have not conducted an effective self study over time. Their products will have challenges in the labour market with the type of certificates they are carrying.

8) There must be improvements in university services especially as it relates to LAN, WAN and Networks. Nigerian universities should initiate and encourage local research into the development of ICT and ICT related materials to reduce costs and close the gap the universities located in the developed and the developing nations.

5.4 Implications of the Study to Planning and Policy

The findings of this study are generalisable especially its recommendations arising from the findings. In the first instance, a holistic approach will give a casual observer the impression that the numbers of schools used were few but the number should be viewed in the light of policy. Age is an important demographic tool in educational management (planning) hence the age of the institution opens a new chapter through which any in coming institution must undergo in the frame work of the national universities commission and in that light, a 50% sample across the geopolitical zones of Nigeria is a good and unbiased approach to universities management taking first and second generation universities as our launching pad.

Educational managers and policy makers should ensure in the light of the revealed findings that a target date is set in which Nigerian universities are to adopt computerisation in MIS. This has implications for management in the light of infrastructure provision, skill acquisition and improved capacity utilisation of provided infrastructure. Planning and policy must ensure and enhance an improved university calendar that will include orientation services all year round, regular training on the use of ICT all the year round for all categories of stakeholders in the university system. New infrastructure that can assist in the implementation of database creation, Networks

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linkages and university wide internet services should be created with strong monitoring and compliance ensure by the NUC.

Another strong implication of this study to management is the drive to ensure a university ICT policy which is yet to be in existence. Nigeria presently has an IT policy but the bench marks failed the test of time. The ICT policy should be pursued vigorously specially as it applies to higher education and institutions while the IT policy be reviewed especially its outdated bench marks and be made to function properly.

It is advisable that policy makers ensure that Nigerian universities (Departments of Academic Planning) implement regularly self study programmes. Though some of these have been going on much more needed to be done for example, the University of Ibadan recently changed its mission statement after so many years indicating '*towards a world class university'*. The change in vision has brought about a new mission and new way to doing things. The foregoing implications are in no way exhaustive but could be seen to involve huge capital outlay. Funding must be commensurate to needs.

5.5 Suggestions for further research

This investigation focused on the Management of Information (generation, availability and utilisation) as predictor of academic planning effectiveness in Nigerian universities. The study focused on the federal government owned universities of the first and second generation classification. The scope of the study could be expanded to include state owned universities and private universities whose short comings in the area of policy implementation motivated the project in the first instance. The inclusion of states and private universities will not only widen the scope but will enable comparisons and greater generalizations. Though this work is generalisable, Private universities were not taken into consideration since they were so young when the project began in 2006/2007. They are now of age and could be included in another survey.

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5.6 Contributions to Knowledge

This study has been able to close some gaps in the field of educational planning and policies especially delving away from the traditional research in the well known areas using that are well understood indices. The study undertook an independent study of academic planning effectiveness using management of information as its predictive variable and to this end was able to provide an index.

The study observed and reported that aggregate contributions of Lecturers MIS to Academic Planning Effectiveness in Nigerian universities is 36% while Final year students and fresh students contribution to MIS information generation for academic planning is (27 & 37)% respectively. The study also established as index for MIS utilisation that saw Lecturers, Final year and undergraduate students utilise information as follows (25, 11 & 64)% respectively. Several other indicators were presented concerning academic planning effectiveness. Previous studies hardly considered the area of academic planning as most works concentrated on information acquisitions, capacity development etc. This study examined the relationship between academic planning and Management of Information. It is a pioneering work in academic planning that is not a self study.

5.7 Limitations of the Study

The study was limited by some factors among which were funds and time. In the first instance, the study experience one of the peculiarities to Ph.D research in Nigeria. It lacked a formal financial sponsor so it could not afford to include state universities and private universities. Including them would have exacerbated the cost of the programme and probably truncate it because the research bore a national outlook.

Secondly, time was of essence. The demographic information of the study was collected in 2006/2007 academic session. The period of the study witnessed an unstable university wide distorted academic calendar with elongated or truncated sessions. Such unsettled calendars made the study tough. Further research could include states and private universities

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APPENDIX 1

NIGERIAN UNIVERSITIES INFORMATION AND ACADEMIC PLANNING EFFECTIVENESS QUESTIONNAIRE 1 (NUIAPEQ) FOR DIRECTORS OF ACADEMIC PLANNING AND ICT IN NIGERIAN UNIVERSITIES

Dear Sir/Ma,

This questionnaire is designed to elicit relevant responses from you to enable progress in the investigation of the above referenced research will be highly appreciated. Please feel very free to offer your sincere response as respondents and responses will be treated with strict confidentially.

Thanks

Isah, E.A

Researcher

SECTION A – GENERAL INFORMATION

1. Name of University:……
2. Year Established…….
3. Department: ……
4. Marital Status: Married ( ) Single ( ) Divorce ( ) Separated ( ) Widowed ( )
5. Gender: Male ( ) Female ( )
6. Age: 26-30 years ( ) 31-35 years ( ) 36-40 years ( ) 41-45 and above ( )
7. No of years experience in academics planning: 1-10 ( ) 11-20 ( ) 21-30 ( )
8. Highest academics (please state) ……..
9. Specialization @ 1st Degree: B.Sc ( ) B.ED ( ) B.A/B.Ed ( ) others ( ) please state……

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SECTION B: INFORMATION GENERATION CAPACITY

Instruction: Indicate (√) to any of the options which best express your opinion on any of items below. SD- Strongly Agree (4 point), A-Agree (3points) D-Degree (2points) and strongly Disagree (1 point) in the cause of your daily duties in this University.

S/N	ITEMS	SA	A	D	SD
10.	Your office generates information for planning purpose in this university regularly all year round.				
11.	The types of information required of you changes often i.e. it is dynamic				
12.	You proposed the university mission statement for university				
13.	You are aware of a counseling unit in this university (Not Department of Guidance and Counseling of the Faculty of Education)				

SECTION C – INFORMATION AVAILABILITY

Instruction: Indicate (√) to any of the options which best express your opinion on any of items below. SD- Strongly Agree (4 point), A-Agree (3points) D-Degree (2points) and Strongly Disagree (1 point) in the cause of your daily duties in this University.

S/N	ITEMS	SA	A	D	SD
14	There is strong linkage between your office and other sections of the university as faculties and departments to facilitate data collection and collation				
15	Any information you are done with is discarded				
16.	Your office has data bases for storing and retrieving data peculiar to academic planning for this university				

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SECTION D – INFORMATION UTILIZATION CAPACITY

Instruction: Indicate (√) to any of the options which best express your opinion on any of items below. SD- Strongly Agree (4 point), A-Agree (3points) D-Degree (2points) and strongly Disagree (1 point) in the cause of your daily duties in this University.

S/N	ITEMS	SA	A	D	SD
17	Your office has the capacity (equipment) to access any data base, site or portal in the university to retrieve information for use electronically.				
18	Your staff are well trained on the use of electronic manipulation of data				
19	You have the capacity (equipment) to provide information on any university subject for which you have collected information in less than an hour				
20	It takes up to a day to provide such information as referred to in item 19				

SECTION E - ACADEMICS PLANNING EFFECTIVENESS

Instruction: Indicate (√) to any of the options which best express your opinion on any of items below. SD- Strongly Agree (4 point), A-Agree (3points) D-Disagree (2points) and strongly Disagree (1 point).

S/N	ITEMS	SA	A	D	SD
22	This office in consultation with the faculties and departments initiates academic programmes in this university				
23	This office determines quotas and limits in consultation with the university regulators				
24	This office performs the essential duties of quality control alongside the regulator				
25	Students produced in this university are self reliant after graduation.				
26	As Director of Academic planning, you will advocate a review of the academic programmes of this institution for a new policy direction				

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APPENDIX 2

(NUIAPEQ) 2 FOR LECTURERS.

Dear Sir/Ma,

This questionnaire is designed to elicit relevant responses from you to enable progress in the investigation of the above referenced research will be highly appreciated. Please feel very free to offer your sincere response as respondents and responses will be treated with strict confidentially.

Thanks

Isah, E.A

Researcher.

SECTION A – GENERAL INFORMATION

1. Name of University:……
2. Year Established……
3. Department: ……
4. Marital Status: Married ( ) Single ( ) Divorce ( ) Separated ( ) Widowed ( )
5. Gender: Male ( ) Female ( )
6. Age: 26-30 years ( ) 31-35 years ( ) 36-40 years ( ) 41-45 and above ( )
7. Rank/Position: Prof. ( ) Reader ( ) S/L ( ) L1 ( ) L2 ( ) AL ( ) G/A ( )
8. No of years experience in academics planning: 1-10 ( ) 11-20 ( ) 21-30 ( ) 31yrs & above ( )
9. Highest Educational qualification: PhD ( ) Masters ( ) 1st
10. Specialization @ 1st Degree: B.Sc ( ) B.ED ( ) B.A ( ) B.Ed ( ) M.A ( ) M.Ed others should specify ……
11. Are you a member of senate? Yes ( ) No ( )
12. If member of senate how did you become member? Promotion ( ) election ( ) Appointment ( )
13. Please state the average Number of students you teach per class ……

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SECTION B: INFORMATION GENERATION CAPACITY

Instruction: Indicate ( ) to any of the options which best express your opinion on any of items below. SD - Strongly Agree (4 point), A-Agree (3points) D-Degree (2points) and strongly Disagree (1 point) in the cause of your daily duties in this University.

S/N	ITEMS	SA	A	D	SD
14.	You generate information daily in the course of your daily duties as a lecturer in this institution through writing memos, submission of reports and documents on students issues and sundry matters.				
15.	The generated information is stored in a data base				
16.	The information you generate assist the university in academics planning				
17.	The generated information is on student matters e.g exam score				
18.	The university has a guidance and counseling unit that handles complex academic problems				
19.	The information generated has some level of influence on official decisions				
20.	The information generated might determine the direction of academics planning				
21.	Generated information in this office is stored in electronic format				
22.	Records of students academics progress/performance are passed by this office through the departments and faculties to the academic planning section.				
23.	To generated reliable information, I consult the with superior officers within and out side the university				
24.	To generate adequate information, I consult the internet				
25.	To generate reliable information, I consult files				
26.	To generate adequate information, I consult files				
27.	To generate reliable information, I consult notice board				
28.	Information generated in this office can be used for other purpose if need be				

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SECTION C - INFORMATION AVAILABILITY

S/N	ITEMS	SA	A	D	SD
29	To gain easy access to information, you often store your information in electronic formats				
30	You have personally created databases for uploading and downloading information				
31	Personal databases created by you are meant for easy storage and retrieval of information				
32	There is a central database system in this institution for use by both students and lecturers				
33	It is easy to access your university web site or portal from you office locations				

SECTION D - INFORMATION UTILISATION CAPACITY

Instruction: Indicate (√) to any of the options which best express your opinion on any of items below. SD- Strongly Agree (4 point), A-Agree (3points) D-Degree (2points) and strongly Disagree (1 point) in the cause of your daily duties in this University.

S/N	ITEMS	SA	A	D	SD
34.	You require and utilise stored university information regularly in your daily duties in this university for sundry purposes.				
35.	Some of the information required by you is not retrievable though available.				
36.	At times you source your information externally, that is outside the university sources				
37.	The information sourced externally is for students for academic purposes only				
38.	You also source information from text books				
39	You source information from university statute books for				

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	utilisation				
40.	You utilise information from students records to complete sundry evaluation forms for students				
41.	You also source information for your utilisation from academic journals				
42.	You often source information for your utlisation from other research materials not yet mentioned in this questionnaire				
43.	It is possible for you to retrieve information for utlisation easily because such information has been stored in electronic formats in your university.				
44.	To the best of your knowledge, there is a central database in the university from which all staff can relate to collect and utilise data				
45.	You are empowered with direct full functioning internet access in your office				
46.	You have access to utilise the university web portal to upload lectures for students, down load materials for daily work schedule, interact with students, colleagues and the academic world regularly.				
47.	You can link all sections of the university community through Local Area network (LAN)				
53.	You are officially equipped with a functioning personal computer in your office				
48.	You can handle a computer effectively without assistance				
49.	Your information utilisation rate is adequate for you				
50.	You consider your information generation rate adequate for you				
51.	You receive communication and communicate with others in the university community on line.				
52.	Information generated and utilised by you can be used for other purposes				

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SECTION E – ACADEMIC PLANNING EFFECTIVENESS

Instruction: Indicate (√) to any of the options which best express your opinion on any of items below. SD- Strongly Agree (4) points, A-Agree (3) points D-Disagree (2) points and Strongly Disagree (1) point in the cause of your daily duties in this University.

S/N	ITEMS	SA	A	D	SD
53.	You regularly supply information through questionnaire to the academic planning office of your university on teaching, research and personal issues				
54.	You are aware that the academic planning office conducts regular internal evaluations on your performance as a lecturer				
55.	Most of the internal evaluations conducted by the academic planning office are actually passed to the NUC				
56.	The evaluations are most often used to assess your lecturing effectiveness				
57.	You consider academic planning in the university where teach effective				
58.	You are aware that your students whom you teach are given adequate orientation by the university after admission each year				
59.	You advise that some changes be effected in the general academic programme of this university.				
60.	As lecturer, you were opportuned to attend orientation programme for lecturing staff on appointment as lecturer to this university.				
61.	As lecturer, you agree with the opinion that some modifications need to be effected to the general education curriculum of this university to enable students attain self reliance after school and reflect changing labour market demands				
62.	Proscription of courses and departments is hardly embarked upon in this university even when it is observed that students appear uninterested in those courses and market demand for its products				

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	dwindled.				
63.	You consider the strength of academic staff in your department adequate				
64.	You are very comfortable with the number of students classes allocated to you in adequate in line with NUC regulations for university lecturers				
65.	You consider all other amenities and infrastructure adequate for you for effective productivity e.g classrooms, lecture halls, PAS and good seating for effecting teaching and learning				
66.	You are satisfied with your office accommodation because it is quite convenient for effective productivity				
67.	The number of students assigned to you is stressful because they are too large for you to cope with.				
68.	The number of students you teach are too few				
70.	In your opinion, you consider your job unchallenging				

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APPENDIX 3

(NUIAPEQ) 3 FRESHMEN AND WOMEN

Dear Sir /Ma,

This questionnaire is designed to elicit relevant responses form you to enable progress in the investigation of the above referenced research. Your faithful and sincere response as respondents and responses will be highly appreciated. Please feel very free to offer your sincere response as respondents and responses will treated with strict confidentially.

Thanks

Isah,E.A

Researcher.

SECTION A - GENERAL INFORMATION

1. Name of University:……
2. Year Established…….
3. Department: ……
4. Marital Status: Married ( ) Single ( ) Divorce ( ) Separated ( ) Widowed ( )
5. Gender: Male ( ) Female ( )
6. Age: below 16years ( )17-20years ( ) 21-24year ( )25-29years ( )30-33years ( )34-37years ( )38-41years ( ) and above 41years ( )
7. Method of admission to this university : UME ( ) DE ( )

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SECTION B: INFORMATION GENERATION CAPACITY

Instruction: Indicate (√) to any of the options which best express your opinion on any of items below. SA- Strongly Agree (4) points, A-Agree (3) points D-Disagree (2) points and SD - Strongly Disagree (1).

S/N	ITEMS	SA	A	D	SD
8.	On admission to this university, you completed your registration on line.				
9.	You have received orientation after admission				
10.	You are aware of the university counseling service				
11.	Since you gained admission, you have enjoyed your lecture				
12.	The university has arrangement in place to teach computer literacy to fresh students.				
13	You have access to lecture materials of your department on the internet				

SECTION C - INFORMATION AVAILABILITY

SECTION D - INFORMATION UTILIZATION CAPACITY

S/N	ITEMS	SA	A	D	SD
14.	You have access to university library regularly				
15.	The university library has enough books to consult.				
16.	The university has arrangement in place for e-studies				
17.	You have access to lecture materials of your department on the internet.				

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SECTION E - ACADEMIC PLANNING EFFECTIVENESS

S/N	ITEMS	SA	A	D	SD
18.	You are satisfied with the course you are admitted to read since that is what you applied for.				
19.	In the lecturer you have received so far in this university, students are seated comfortably for lectures always.				
20.	You reside in the university hostel accommodation.				

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APPENDIX 4

(NUIAPEQ) 4 FOR FINAL YEAR UNDERGRADUATES OF NIGERIAN UNIVERSITIES

Dear Sir /Ma,

This questionnaire is designed to elicit relevant responses form you to enable progress in the investigation of the above referenced research. Your faithful and sincere response as respondents and responses will be highly appreciated. Please feel very free to offer your sincere response as respondents and responses will treated with strict confidentially.

Thanks

SECTION A – GENERAL INFORMATION

1. Name of University:……
2. Year Established…….
3. Department: ……
4. Marital Status: Married ( ) Single ( ) Divorce ( ) Separated ( ) Widowed ( )
5. Gender: Male ( ) Female ( )
6. Age: 26-30 years ( ) 31-35 years ( ) 36-40 years ( ) 41-45 and above ( )
7. Session admitted to this university: …….
8. Course Admitted to read:……..
9. Highest academics (please state) ……
10. Course you are graduating ……..
11. Spent any extra session? Yes ( ) No ( )
12. If yes, how many? ……
13. Cause of extra session (s) Finance ( ) strikes ( ) Poor academic performance ( ) state others……..

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SECTION B: INFORMATION GENERATION CAPACITY

Instruction: Indicate (√) to any of the options which best express your opinion on any of items below. SA- Strongly Agree (4) points, A-Agree (3) points D-Disagree (2) points and SD - Strongly Disagree (1) point.

S/N	ITEMS	SA	A	D	SD
14.	You supplied information to various section of this university e.g faculties, departments etc. on registration as a student				
15.	All your registration were online				
16.	Lectures were upload regularly for you to down load				
17.	Assignments were completed and submitted online				
18.	You receive your examination transcript promptly				
19.	The transcript were posted online				
20.	Conduct of examinations in this university are satisfactory to you.				
21.	Academic calendar for each session always arrived before resumption				

SECTION C – INFORMATION AVAILABILITY

S/N	ITEMS	SA	A	D	SD
22	University correspondence with you is usually through the email				
23	University information is communicated to you through notice boards				
24	You can utilise the computer unassisted				
25	You can surf the internet unaided				

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SECTION D – INFORMATION UTILIZATION CAPACITY

S/N	ITEMS	SA	A	D	SD
26	You were able to get enough information on lecture through your lecturers in this university on the courses studies				
27	The university made computers available to you for use through the department faculty				
28	You can utilize a computer system unassisted				
29	You can fully browse the internet unaided				
30	You are satisfied with the level of individual works you were exposed to as a student.				

SECTION E – ACADEMICS PLANNING EFFECTIVENESS

S/N	ITEMS	SA	A	D	SD
31	You were opportune to have access to the University counseling centre.				
32	You resided in the university hostel accommodation in the halls of residence.				
33	You plan to come back for a a postgraduate Programme in this university.				
34	You have already seemed employment.				
35	You always had a seat for all your lectures while a student here.				
36	The lecturers were always audible enough in all classes while a student.				
37	At time you missed classes because there was no available class space for the lecturers to teach.				

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APPENDIX 5

CHECKLIST FOR DIRECTORS OF ACADEMIC PLANNING AND DIRECTORS OF ICT

Instruction: Please tick (x) against any of the options that best describes MIS operations in this University.

S/No	Items	Fully operational in the University	Partially operational in the University	Yet at planning stage in this University	No plans for it in this University now
1.	Full computerization of MIS activities in this University				
2.	Full internet Access in this University				
3.	Communication				
4.	Processing of students Examination grade through electronic media				
5.	Notification of inter level results between Faculty and Administration (Exams and Records) electronically				
6.	Operational University Web Portal				
7.	E-learning classrooms				
8.	Smart Boards etc.				
9.	Training for Academic staff on Computer utilization				
10.	Training for Non Academic staff on Computer utilization				

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APPENDIX SIX

Table 1.1: Showing some Nigerian Universities and their Enrolment Carrying Capacities in 2005.

S/N	University	Enrolment	Carrying Capacity	Difference	Proprietorship	Remarks
1.	University of Ilorin	19,585	18,735	+1,123	Federal	Over Enrolled
2.	UNAAB	5,003	4,512	+491	"	"
3.	OAU, Ile Ife	22, 742	19,720	+3,022	"	"
4.	University of Benin	33,818	27,666	+6,152	"	"
5.	FUT, Yola	7,847	6,058	+1,789	"	"
6.	University of Lagos	28,354	19,530	+8,824	"	"
7.	A.B.U	31,615	21,082	+10,533	"	"
8.	ATBU, Bauchi	9,720	6,104	+3,616	"	"
9.	University of Port Harcourt	23, 050	14,090	+18,960	"	"
10.	BUK, Kano	18,727	14,221	+4,506	"	"
11.	University of Calabar	23,050	14, 090	+18,960	"	"
12.	Michael Okpara	2,490	1,521	+969	Federal	"
13.	FUT, Minna	11,674	6,744	+4,930	"	"
14.	UNN	37,722	19,627	+18,095	"	"
15.	UDU, Sokoto	23,263	,080	+15,088	"	"
16.	Nnamdi Azikiwe, Awka	28,286	13,198	+15,088	"	"
17.	University of Abuja	18,067	6,250	+11,817	"	"
18.	FUT, Owerri	20,251	9,710	+10,541	"	"
19.	University of Ado – Ekiti	10,437	9,590	+841	Ekiti State	"
20.	Benue State University	8,960	8,100	+860	Benue State	"
21.	Ebonyi State University	14,441	12,106	+2,335	Ebonyi State	"
22.	Abia State University	12,863	9,284	+3,579	Abia State	"
23.	Kogi State University	6,470	4,346	+2,124	Kogi State	"
24.	Imo State University	18,399	10,365	+8,034	Imo State	"
25.	Anambra State, univ. of Science & Tech	4,555	2,440	+2,115	Anambra	"
26.	Ladoke Akintola	14,986	7,385	+7,601	Oyo State	"
27.	OOU, Ago Iwoye	38,773	14,145	+24,628	Ogun State	"
28.	AAU, Ekpoma	30,336	10,110	+20,220	Edo State	"
29.	DELSU Abraka	17,074	13,998	+3,076	Delta State	"
30.	RUST, Port Harcourt	20,151	9,680	+10,471	Rivers State	"
31.	LASU, Ojoo – Lagos	38,767	23,018	+15,749	Lagos State	"

Source: Ojedele & Ilusanya (2006) citing NUC 2005

Table 1.2 Showing under enrolled universities that are federally owned in Nigeria

S/N	Federal Universities	Current Enrolment	Carrying Capacity	Difference	Remarks
1.	University of Maiduguri	22,969	41,555	-18,586	Under enrolled
2.	University of Uyo	12,531	17,590	-5059	Under enrolled
3.	University of Jos	10,691	14,509	-3,8181	"
4.	Nigerian Defence Academy	1,107	3,745	-2,638	"
5.	University of Ibadan	17,766	20,195	-2,429	"
6.	FUT, Akure	5,956	6,810	-854	"
7.	University of Agriculture, Markurdi	2,655	3,280	-625	"

Source: Ojedele & Ilusanya (2006) citing NUC 2005

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Table 1.3 Showing under enrolled universities that are State owned in Nigeria

S/N	State universities	Current Enrolment	Carrying Capacity	Difference	Remarks
1.	Niger – Delta, university. Bayelsa State	4,141	7,770	-3,629	Under enrolled
2.	Enugu State university of Science & Tech	12,742	15,831	-3,069	Under enrolled
3.	Nassarawa State university, Keffi	2,214	3,620	-1,406	Under enrolled
4.	Adamawa State university, Mubi	551	1,800	-1,249	Under enrolled
5.	Kano State uni. of Science and Tech, Wudil	1,118	2,319	-1,201	Under enrolled
6.	Adekunle Ajasin university, Akungba	8,188	8,595	-407	Under enrolled

Source: Ojedele & Ilusanya (2006) citing NUC 2005

Table 1.4 Showing under enrolled universities that are privately owned in Nigeria

S/N	Private universities	Current Enrolment	Carrying Capacity	Difference	Remarks
1.	Madonna university, Okija	4,824	9,853	5,029	Under enrolment
2.	Benson Idahosa university, Benin	1,916	4,175	2,259	Under enrolment
3.	Pan African university, Lagos	121	870	749	Under enrolment
4.	Babcock university, Ilishan	3,609	4,075	466	Under enrolment
5.	Bowen university, Iwo	1,759	2,090	331	Under enrolment
6.	Igbinedion university, Okada	3,313	3,465	152	Under enrolment

Source: Ojedele & Ilusanya (2006) citing NUC 2005

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APPENDIX 7

Correlations

		IGC	IUC	APE	IACT
IGC	Pearson Correlation	1	.388**	.289**	.203**
	Sig. (2-tailed)	.	.000	.000	.000
	N	7159	7157	7154	7151
IUC	Pearson Correlation	.388**	1	.319**	.040**
	Sig. (2-tailed)	.000	.	.000	.001
	N	7157	7158	7153	7150
APE	Pearson Correlation	.289**	.319**	1	.124**
	Sig. (2-tailed)	.000	.000	.	.000
	N	7154	7153	7155	7149
IACT	Pearson Correlation	.203**	.040**	.124**	1
	Sig. (2-tailed)	.000	.001	.000	.
	N	7151	7150	7149	7152

**. Correlation is significant at the 0.01 level (2-tailed).

Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.372[a]	.138	.138	3.640

a. Predictors: (Constant), IACT, IUC, IGC

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15159.770	3	5053.257	381.447	.000[a]
	Residual	94614.457	7142	13.248		
	Total	109774.2	7145			

a. Predictors: (Constant), IACT, IUC, IGC

b. Dependent Variable: APE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	7.790	.236		33.044	.000
	IGC	.198	.014	.177	14.564	.000
	IUC	.306	.015	.244	20.500	.000
	IACT	5.942E-02	.009	.078	6.973	.000

a. Dependent Variable: APE

Test of Homogeneity of Variances

	Levene Statistic	df 1	df 2	Sig.
IGC	13.809	5	7153	.000
IUC	2.130	5	7152	.059
APE	4.338	5	7149	.001
IACT	7.112	5	7146	.000

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
IGC	Between Groups	3331.202	5	666.240	56.038	.000
	Within Groups	85041.876	7153	11.889		
	Total	88373.078	7158			
IUC	Between Groups	337.266	5	67.453	6.894	.000
	Within Groups	69977.940	7152	9.784		
	Total	70315.206	7157			
APE	Between Groups	1556.019	5	311.204	20.438	.000
	Within Groups	108854.3	7149	15.227		
	Total	110410.4	7154			
IACT	Between Groups	4174.719	5	834.944	31.946	.000
	Within Groups	186769.2	7146	26.136		
	Total	190943.9	7151			

FRESHMEN

Correlations

Correlations

		IGCT	IUCT	IACT	APET
IGCT	Pearson Correlation	1	.395**	.377**	.277**
	Sig. (2-tailed)	.	.000	.000	.000
	N	3266	3262	3258	3263
IUCT	Pearson Correlation	.395**	1	.544**	.262**
	Sig. (2-tailed)	.000	.	.000	.000
	N	3262	3265	3261	3262
IACT	Pearson Correlation	.377**	.544**	1	.260**
	Sig. (2-tailed)	.000	.000	.	.000
	N	3258	3261	3261	3258
APET	Pearson Correlation	.277**	.262**	.260**	1
	Sig. (2-tailed)	.000	.000	.000	.
	N	3263	3262	3258	3266

**. Correlation is significant at the 0.01 level (2-tailed).

T-Test

Group Statistics

	NAMEUN	N	Mean	Std. Deviation	Std. Error Mean
IGCT	FIRSTGEN	1335	15.5191	2.75339	.07536
	SECONDGEN	1931	15.8348	2.79992	.06372
IUCT	FIRSTGEN	1335	9.3783	1.88936	.05171
	SECONDGEN	1930	9.2373	1.97224	.04489
IACT	FIRSTGEN	1331	6.0714	1.70718	.04679
	SECONDGEN	1930	5.9839	1.43829	.03274
APET	FIRSTGEN	1333	8.4974	2.35499	.06450
	SECONDGEN	1933	7.6679	2.30949	.05253

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
IGCT	Equal variances assumed	.054	.815	-3.189	3264	.001	-.3157	.09899	-.50978	-.12162
	Equal variances not assumed			-3.199	2899.053	.001	-.3157	.09868	-.50920	-.12220
IUCT	Equal variances assumed	4.131	.042	2.043	3263	.041	.1410	.06902	.00565	.27629
	Equal variances not assumed			2.059	2945.564	.040	.1410	.06848	.00670	.27524
IACT	Equal variances assumed	1.576	.209	1.580	3259	.114	.0874	.05536	-.02110	.19597
	Equal variances not assumed			1.531	2532.402	.126	.0874	.05711	-.02455	.19942
APET	Equal variances assumed	17.083	.000	10.008	3264	.000	.8295	.08289	.66698	.99202
	Equal variances not assumed			9.972	2827.296	.000	.8295	.08319	.66639	.99261

Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.339[a]	.115	.114	2.22553

a. Predictors: (Constant), IACT, IGCT, IUCT

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2089.913	3	696.638	140.651	.000[a]
	Residual	16102.085	3251	4.953		
	Total	18191.999	3254			

a. Predictors: (Constant), IACT, IGCT, IUCT

b. Dependent Variable: APET

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.051	.250		12.225	.000
	IGCT	.154	.016	.182	9.900	.000
	IUCT	.150	.025	.123	6.081	.000
	IACT	.188	.031	.123	6.128	.000

a. Dependent Variable: APET

FINALYEAR

Correlations

Correlations

		IGCT	IUCT	IACT	APET
IGCT	Pearson Correlation	1	.296**	.455**	.266**
	Sig. (2-tailed)	.	.000	.000	.000
	N	2995	2988	2977	2952
IUCT	Pearson Correlation	.296**	1	.429**	.321**
	Sig. (2-tailed)	.000	.	.000	.000
	N	2988	3043	3019	2993
IACT	Pearson Correlation	.455**	.429**	1	.327**
	Sig. (2-tailed)	.000	.000	.	.000
	N	2977	3019	3032	2981
APET	Pearson Correlation	.266**	.321**	.327**	1
	Sig. (2-tailed)	.000	.000	.000	.
	N	2952	2993	2981	3002

**. Correlation is significant at the 0.01 level (2-tailed).

T-Test

Group Statistics

	INSTITTO	N	Mean	Std. Deviation	Std. Error Mean
IGCT	FIRSTGEN	1317	16.6712	3.32608	.09165
	SECONDGEN	1678	17.3379	3.43640	.08389
IUCT	FIRSTGEN	1319	7.9022	2.03840	.05613
	SECONDGEN	1724	7.6067	2.14497	.05166
IACT	FIRSTGEN	1318	12.8293	2.38774	.06577
	SECONDGEN	1714	12.9288	2.45274	.05924
APET	FIRSTGEN	1317	17.1670	3.58264	.09872
	SECONDGEN	1685	17.1205	3.94909	.09620

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
IGCT	Equal variances assumed	.820	.365	-5.345	2993	.000	-.6667	.12474	-.91126	-.42210
	Equal variances not assumed			-5.366	2866.106	.000	-.6667	.12425	-.91030	-.42306
IUCT	Equal variances assumed	6.813	.009	3.847	3041	.000	.2955	.07680	.14488	.44606
	Equal variances not assumed			3.873	2903.210	.000	.2955	.07628	.14590	.44504
IACT	Equal variances assumed	4.778	.029	-1.121	3030	.263	-.0995	.08883	-.27371	.07464
	Equal variances not assumed			-1.124	2869.063	.261	-.0995	.08852	-.27310	.07403
APET	Equal variances assumed	3.852	.050	.334	3000	.739	.0466	.13950	-.22695	.32009
	Equal variances not assumed			.338	2934.322	.735	.0466	.13785	-.22371	.31685

Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.402[a]	.161	.160	3.47648

a. Predictors: (Constant), IACT, IUCT, IGCT

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6804.058	3	2268.019	187.658	.000[a]
	Residual	35375.459	2927	12.086		
	Total	42179.517	2930			

a. Predictors: (Constant), IACT, IUCT, IGCT

b. Dependent Variable: APET

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.191	.402		20.390	.000
	IGCT	.138	.021	.124	6.463	.000
	IUCT	.384	.034	.213	11.270	.000
	IACT	.281	.032	.180	8.875	.000

a. Dependent Variable: APET

LECTURERS

Correlations

Correlations

		IGCT	IUCT	IACT	APET
IGCT	Pearson Correlation	1	.555**	.236**	.321**
	Sig. (2-tailed)	.	.000	.000	.000
	N	785	780	782	785
IUCT	Pearson Correlation	.555**	1	.442**	.505**
	Sig. (2-tailed)	.000	.	.000	.000
	N	780	800	796	799
IACT	Pearson Correlation	.236**	.442**	1	.443**
	Sig. (2-tailed)	.000	.000	.	.000
	N	782	796	809	808
APET	Pearson Correlation	.321**	.505**	.443**	1
	Sig. (2-tailed)	.000	.000	.000	.
	N	785	799	808	812

**. Correlation is significant at the 0.01 level (2-tailed).

T-Test

Group Statistics

	INSTITI	N	Mean	Std. Deviation	Std. Error Mean
IGCT	FIRSTGEN	388	54.2500	9.45474	.47999
	SECONDGEN	397	55.0101	9.19980	.46172
IUCT	FIRSTGEN	386	42.0622	6.47723	.32968
	SECONDGEN	414	43.6570	5.09030	.25017
IACT	FIRSTGEN	388	12.6881	4.01652	.20391
	SECONDGEN	421	13.0499	2.94066	.14332
APET	FIRSTGEN	388	42.1418	7.20953	.36601
	SECONDGEN	424	43.5071	3.78687	.18391

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
IGCT	Equal variances assumed	.001	.971	-1.142	783	.254	-.7601	.66581	-2.06706	.54691
	Equal variances not assumed			-1.141	781.026	.254	-.7601	.66602	-2.06748	.54732
IUCT	Equal variances assumed	2.593	.108	-3.886	798	.000	-1.5948	.41044	-2.40050	-.78915
	Equal variances not assumed			-3.854	730.309	.000	-1.5948	.41386	-2.40732	-.78234
IACT	Equal variances assumed	47.676	.000	-1.469	807	.142	-.3617	.24618	-.84497	.12149
	Equal variances not assumed			-1.451	705.227	.147	-.3617	.24924	-.85107	.12760
APET	Equal variances assumed	34.878	.000	-3.418	810	.001	-1.3653	.39942	-2.14935	-.58130
	Equal variances not assumed			-3.333	573.629	.001	-1.3653	.40961	-2.16985	-.56080

Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.560[a]	.314	.311	4.80746

a. Predictors: (Constant), IACT, IGCT, IUCT

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8176.230	3	2725.410	117.923	.000[a]
	Residual	17865.353	773	23.112		
	Total	26041.583	776			

a. Predictors: (Constant), IACT, IGCT, IUCT

b. Dependent Variable: APET

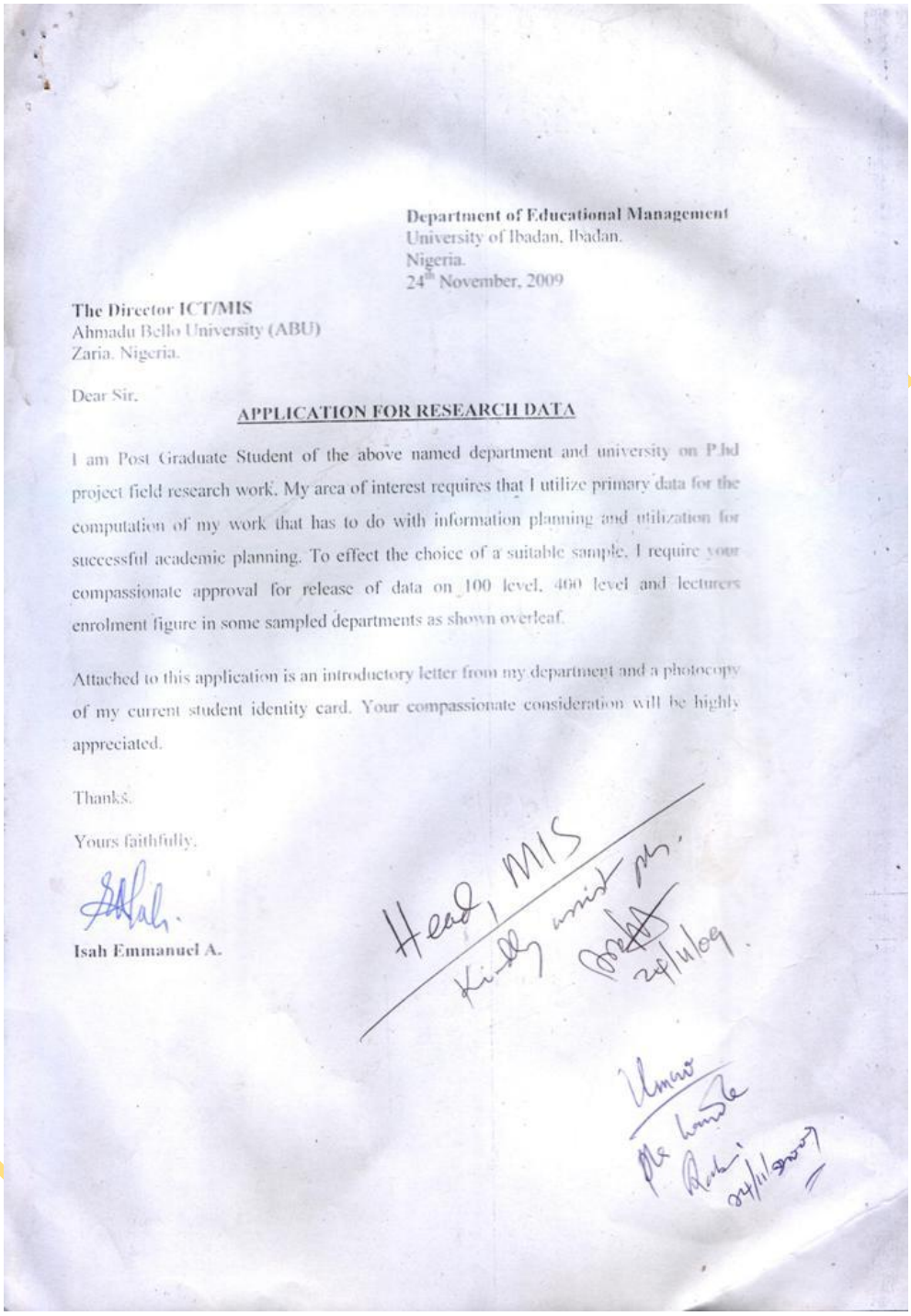
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.304	1.322		15.364	.000
	IGCT	3.907E-02	.022	.063	1.754	.080
	IUCT	.343	.038	.349	8.963	.000
	IACT	.446	.055	.270	8.121	.000

a. Dependent Variable: APET

UNIVERSITY OF IBADAN

APPENDIX 8 – APPROVALs



Department of Educational Management
University of Ibadan, Ibadan.
Nigeria.
24th November, 2009

The Director ICT/MIS
Ahmadu Bello University (ABU)
Zaria. Nigeria.

Dear Sir,

APPLICATION FOR RESEARCH DATA

I am Post Graduate Student of the above named department and university on P.hd project field research work. My area of interest requires that I utilize primary data for the computation of my work that has to do with information planning and utilization for successful academic planning. To effect the choice of a suitable sample, I require your compassionate approval for release of data on 100 level, 400 level and lecturers enrolment figure in some sampled departments as shown overleaf.

Attached to this application is an introductory letter from my department and a photocopy of my current student identity card. Your compassionate consideration will be highly appreciated.

Thanks.

Yours faithfully.

Isah Emmanuel A.

Head, MIS
Kindly assist pls.
24/11/09.

UNIVERSITY OF IBADAN, IBADAN, NIGERIA

DEPARTMENT OF EDUCATIONAL MANAGEMENT

David A. Olaniyan B.Ed, M.Ed., Ph.D (Ibadan)
Ag. Head of Department
E-mail: davidolaniyan2007@yahoo.com

Secretary: 08033977314

Our Ref: UI/EDM.50

Date: 3 March, 2009

TO WHOM IT MAY CONCERN

The bearer **ISAH Emmanuel A.** with matriculation number 40624 is a (Ph.D) student of the Department of Educational Management.

He needs to collect data/information to carry out research on his Course work from your establishment/School.

It would be appreciated if necessary assistant is rendered to him.

Thank you.

Dr. D.A. Olaniyan
Acting Head of Department

HEAD
DEPT. OF EDUCATIONAL MANAGEMENT
UNIVERSITY OF IBADAN.

Department of Educational Management
University of Ibadan, Nigeria
5th May 2009

To :

The Director of Academic Planning
University of Portharcourt
Rivers State. Nigeria

Dear Sir.

APPLICATION FOR RESEARCH DATA

I am a Post graduate student of the above named department of the university of Iba... am a PhD student requiring primary source data to complete my work. I shall be v... grateful if you could use your good offices to assist me to get the following informa... about your school (as attached over leaf). The purpose of the data is for nothing else ... research studies to determine the academic planning effectiveness of ... Nigerian universities of which this university is one.

Your knid and compassionate response will be highly appreciated. Find attached to this letter, a recommendation letter from my department and a photocopy of my current university ID card.

Yours faithfully

Isah Emmanuel A

CAPO
Pl. Liaise as deemed most appropriate. (Hod/09)
A.t.n.q.

UNIVERSITY OF PORT - HARCOURT
RECEIVED
01 JUN 2009
VICE - CHANCELLOR'S OFFICE

Department of Educational Management
University of Ibadan, Nigeria
31st May 2009

The Vice Chancellor,
University of Portharcourt
Portharcourt, Rivers State
Nigeria.

Dear Sir,

APPLICATION FOR PERMISSION TO ADMINISTER RESEARCH QUESTIONNAIRE ON 100 LEVEL, 400 LEVEL STUDENTS AND LECTURING STAFF

I am a student of the university of Ibadan on P.hd field work from the above named department. I hereby seek your permission to enable me serve my research questionnaire on 800 students of the university in 100 and 400 levels respectively from the faculties of Education, Science, Social Science, Arts, Technology and Agriculture and 200 members of the academic staff in Uniport. The period will be from Monday 1st June to Friday 5th June 2009.

Attached with this letter are the following documents;

1. An introductory letter from the Department of Educational Management, U.I
2. Current student ID card and
3. Specimen copies of the questionnaire.

Your kind and compassionate response will be highly appreciated.

Yours faithfully,

Isah, E.A

Isah

1/6/09

Isah. E.A

Department of Educational Management
University of Ibadan, Nigeria
5th May 2009

OF THE VICE
- 8 JUN 2009
OF NIGERIA

The Vice Chancellor,
University of Nigeria (UNN)
Nsukka.
Nigeria.

Dear Sir,

APPLICATION FOR PERMISSION TO ADMINISTER RESEARCH QUESTIONNAIRE ON 100 LEVEL, 400 LEVEL STUDENTS AND LECTURING STAFF

I am a student of the university of Ibadan on P.hd field work from the above named department. I hereby seek your permission to enable me serve my research questionnaire on 800 students of the university in 100 and 400 levels respectively from the faculties of Education, Science, Social Science, Arts, Technology and Agriculture and 200 members of the academic staff in Uniport. The period will be from Monday 8th June to Friday 12th June 2009.

Attached with this letter are the following documents;

4. An introductory letter from the Department of Educational Management. U.I
5. Current student ID card and
6. Specimen copies of the questionnaire.

Your kind and compassionate response will be highly appreciated.

Yours faithfully,

Isah.

Isah, E.A

~~HOD~~ (1) Isah, E.A.
Your request is belated
Ju 3/06
DVC (Acad)
11/06/09.

(2) Dean, Educatin
your comments pls
Ju 3/06
11/06/09

AP01 – See what you can do about filling this questionnaire. MCJze

Department of Educational Management
University of Ibadan
Nigeria
4/5/2009

Prof. M.C. Onze.
Professor of Demography
Sociology Dept. BUK
Zaria.

To:-

The Director of Academic Planning
Bayero University,
Kano.
Nigeria

Dear Sir,

APPLICATION FOR RESEARCH DATA.

I am a post graduate Student of the above named Department of the University of Ibadan. I am a PhD Student requiring primary source data to complete my work. I shall be very grateful if you could use your good offices to assist me to get the following information about your school [as attached overleaf]. The purpose of the data is to determine the effectiveness of Academic planning in some selected Federal Universities in Nigeria, of which your university is one.

Your kind and considerate response will be highly appreciated. Find attached to this letter, a recommendation letter from my department and a photocopy of my student I.D. card and the questionnaire.

Yours Faithfully

Isah, Emmanuel. A.

VC/GEN/25

Department of Educational Management
University of Ibadan, Nigeria.

7th May, 2009

The Vice Chancellor ,
Ahmadu Bello University,
Zaria, Nigeria.

FACULTY OF EDU... Date 7/05/09 Dean's Office A. B. U. ZARIA

Vice Chancellor's Office 07 MAY 2009 A. B. U. Zaria - Nigeria

Dear Sir,

APPLICATION FOR PERMISSION TO ADMINISTER RESEARCH QUESTIONNAIRE ON 100 LEVEL, 400 LEVEL STUDENTS AND LECTURING STAFF

I am a student of the University of Ibadan on PhD field work from the above named department. I hereby seek your permission to enable me serve my research questionnaire on 600 students each in 100 level and 400 level respectively in your university. I shall be grateful if the same permission is allowed for 200 members of your academic staff. The period is between Monday 11th May to Friday 14th May, 2009.

Find attached to this letter, photocopies of letter from my department and my current student ID Card. Also, specimen copies of the questionnaire are here with attached.

Yours faithfully,

ISAH E.A

A
Dean- Fac. Education
Pls assist
07-05-09

HOD's
Educ
PHE
VTE
LIS

Please see "A" above and assist.