Government level Policy with respect to the effect of Brain Drain on Nigerian Higher Education Institutions

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Abstract

The effect of brain drain on Nigerian Higher Education Institutions has attracted a lot of attention in the past two to three decades. From the time of self rule or independent in 1960 till mid 1980s, Nigerian higher education sector is said to have been established to run the needed capacity for the management of institutions and the economy. It was measured outstanding in the academe. There was enough funding to cater for the up keeps of the sector; working conditions were also good and motivating enough. Educated Nigerians were returning home at the end of their education career abroad to take up job at home.

However, from the mid 1980s the opposite was the case, Nigerian scholars stated to leave the sector and the country in droves to other sector within the country or to other countries for better work condition. This upside down turn of the situation is said to have been due to lack of responsive national government. Many reform policies is said to have been put in place by successive government to revert the situation.

In view of the above information, I developed a hypothetical theory to ascertain the extent of the effect, and causalities. The theme which is: *evaluation of government level policy with respect to the effect of brain drain on the Nigerian Higher Education Institutions.* Is been investigated through the research problem to drive the study along with 7 questions. Since the problem of brain drain on national institution can only be corrected by governmental action through formation of policy with objectives, therefore I have chosen Gornitzka’s scientific insight of governmental policies and its change effect on higher education.

I have engaged phone interview and secondary documents analysis since related government policy documents on brain drain was not accessible.

Both data collated show consensus results that seem to prove the cause and the prolonged effect of brain drain, which is Nigerian government’s delay to implement its own policies. Government excuse as discovered emanated from poor revenue generation to cater for all its oversight functional needs. Therefore almost all the data collated both literary and empirical seem to agree
that the solution lies on designing policies with the objective to diversify the financial base of the Sector. Also to implement a flexible governance/management of both the macro and meso levels of Nigerian higher Education Institutions. It is based on the common ground of the data that I have therefore rendered my recommendation to this study, with the theme: Policy objective on effective decentralized resource dependency/ flexible governance.
Acknowledgement

My profound gratitude goes to the departmental leader Prof. Peter Maassen, he has not just thought me, but is a builder and a mentor, mostly during this overdue period of my unprecedented ordeal. His soft words, perseverance and cooperation kept this journey alive even when the mind was down, I cannot thank him enough.

My accolade belongs to Romulo Pinheiro. Though I have been there before, yet his friendly but strict supervisory technique remains superb. He has not just supervised this work, but has scratched around the scarce resources together with me; I return the credit to him.

I hold to high esteem all my teachers: from Oslo, Norway; Oberlin, Japan; Tampere, Finland; Aveiro, Portugal; The higher education funding expert, Prof. Bruce Johnson, USA; and a whole lot of others, you are epitomes of wisdom.

I will not forget the soft hearted and devoted office workers, their accommodative and approachable mannerism always reduce academic tensions, I appreciate your concerns and patience during these challenging periods.

Finally, I value the comfort and patience from the lovely mother to my children, Mrs. Kindness and our three delightful children, Deborah, Kingsley and Agape. Your prayerfulness kept my spirit up even when the dream seemed defeated. The three years physical disconnection will soon be a thing of the past, see you in a little while.
Dedication

I commit this work to African scholars, who, though seem cut-off by the web of ‘capital-flight’, yet entrust their intellect to fine-tune measures, such as: ‘Brain-circulation’ and ‘Diaspora-options’ to still connect or present home-base (as a fee paying member) to the global reality. Keep it up; it is not yet over until it is over.
**List of Abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Developments</td>
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<td>NEPAD</td>
<td>New Partnership for Africa's Development</td>
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<td>HEIs</td>
<td>Higher Education Institutions</td>
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<td>NATO</td>
<td>Nordality, Authority, Treasure and Organization</td>
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<td>HEI</td>
<td>Higher Education Institution</td>
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<td>NMA</td>
<td>Nigerian Medical Association</td>
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<td>UME</td>
<td>University Matriculation Examination</td>
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<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<td>MOU</td>
<td>Memoranda of Understanding</td>
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<td>SAP</td>
<td>Structural Adjustment Programme</td>
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<td>NASU</td>
<td>None Academic Staff Union of the Universities</td>
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<td>ASUU</td>
<td>Academic Staff Union of the Universities</td>
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<td>NASUUU</td>
<td>Non Academic Staff Union of the Universities</td>
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<td>NUC</td>
<td>Nigeria University Commission</td>
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<td>CBN</td>
<td>Central Bank of Nigeria</td>
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<td>ETF</td>
<td>Education Tax fund</td>
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<td>R&amp;D</td>
<td>Research and Development</td>
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<td>RBD</td>
<td>Korea’s Reverse Brain Drain</td>
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<td>EU</td>
<td>European Union</td>
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<td>UCH</td>
<td>University Teaching Hospitals</td>
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<td>Human Immune Virus</td>
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<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>UNDP</td>
<td>United Nations Development Programmes</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>AU</td>
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<td>SMEs</td>
<td>Small and Medium Enterprises</td>
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<td>ICT</td>
<td>Information and Computer Technology</td>
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<td>TCB</td>
<td>Technological Capacity Building</td>
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<td>FG</td>
<td>Federal Government</td>
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<td>UNN</td>
<td>University of Nigeria, Nsukka</td>
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<td>UNILORIN</td>
<td>University of Ilorin</td>
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<td>NEC</td>
<td>National Executive Committee</td>
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<td>R4F</td>
<td>Regions for Research</td>
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<td>CEO</td>
<td>Chief Executive Officer</td>
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1. General Introduction

The role of universities in human capital development, research and technological innovation cannot be underestimated. All over the world investment in university education is a critical component of national development efforts. Nations today depend increasingly on knowledge, ideas and skills, which are produced in universities (Oni 1999).

In the vain Shah (1975) summarises that all educational systems share three major universally accepted objectives, which include:

- To socialise the recipient into the traditions, mores and values of his or her society.
- To equip the recipient with necessary skills that would ensure his or her livelihood, and.
- To help develop the persons power to contribute to the development of his or her community.

Also, nation states invest in university education because society expects it to contribute to national development in three primary traditions (OECD 2001):

- It is a societal expectation that the university produces the highly skilled personnel in technology, engineering, management and other essential professions for national economic building.
- It is the responsible of the universities to produce its own corps of academic personnel or the intellectual resource pool that will, through scientific research generate new knowledge and innovation to solve development problems.
- Finally, universities produce the teachers, administrators and managers for other levels of human resources development institutions.

The role of the university in capacity building in Africa cannot be underrated. From colonial times university in Africa and indeed Nigeria have built the needed capacity for the management of institutions and the economy. Up to early 1980s the Nigerian universities were repositories of
everything that could be considered excellent in the academe, they had well qualify and adequate academic staff (Bangura 1994).

The working conditions were also good and motivating enough. In addition, funding was very reasonable. Consequently, many academic potential, whether trained in Nigeria or in the overseas universities were motivated to look for and take up academic career in Nigeria, regardless of what could have been on offer to them upon the conclusion of their studies. This would be the case with respect to the potential academicians that studied in overseas universities (Oni 1991).

The academic community in Nigeria lived to its billing: research projects were conducted and results were achieved. The totality of the Nigerian university system was recognised for this feat and was equally well respected. This ideal situation, as it were, changed dramatically from the second half of the 1980s following the precipitous decline in the overall lack of political attention to the needs of the universities (Materu et al., 2006).

The consequences led to the beginning of the phenomenon of brain drain whose impact is felt most by Nigeria universities. It started in trickles until it became a matter of serious concern that has since refused to abate in other to return Nigerian university system to its glorious past. With the departure of seasoned academics that were not prepared to see reputations built over the years going down the drain, as a result, the university system was forced to replace qualified personnel with academics of lower standards both in training and professional experience. The situation therefore calls for urgent attention in order to return Nigerian Higher Education Institutions to its proper place (Oni 1991).

In view of the above, this study is focussing on the effect of Nigerian government’s policy with respect to the factors that lead to the massive exodus of university academicians or human resources to other domestic sectors within the country or to other parts of the world. Also with consideration to the effects of brain drain on the development of globally competitive Higher Education Sector in Nigeria.
A special focus shall as well be placed on the role of higher education institutions\(^1\) in the government policy process, given that being involved in policy formation is one way in which universities and colleges can negotiate and shape their environment. I mean policy process in the sense that the analysis of government initiatives shall include not just policy formation and implementation, but to consider:

- The extent at which Higher education Institutions’ representatives were involved in the entire policy process and,

- To understand the degree through which Higher education Institutions comply with and integrate (implement) the policy.

If the above information is found to be accurate, then the implication of this development for African and indeed Nigerian development in the next century could be grave if not handled properly. This is because without the ability to sustain capacity building for human resources, and ensure the effective utilisation of what has been built (World Bank 1996), Nigeria and indeed Africa as a whole may not be able to achieve the desired integration into the global system in the next century.

Castells (2000), submits that when the process of industrialisation require the training of vast number of engineers, accountants, economists, social workers and other professionals. Also when the expansion of the health and education system demanded for millions of teaching staff and medical personnel, universities were called upon to provide both general and specialised training. Hence, a policy that targets the establishment of capacity building for human capital development, gives higher education institutions the ability to generate research while disseminating it into the industrial world is seen as critical (Wolf 1972).

In other to have a holistic understanding of the effect of brain drain on Nigerian higher education Institutions, the when, what, and how it started become obvious in other to understand its

\(^1\) The term, Higher Education Institutions (HEIs) and Universities system or sector will be used interchangeably in the course of this study
position as at the time of this writing. In other to realise this, I will approach the inquiry by looking at two potential periods of higher education history in Nigeria: 1) The era of military regimes from mid 1980s to 1998, and 2) return to democratic governance from 1999 to the time of this writing. The two eras may not be directly compared, but data trends may add meanings to it as this study progress, i.e. to ascertain if there has been some noticeable change (s) despite the long period.

1.1 Research Aim

The aim of this study is twofold: First, to participate in the ongoing academic discourse regarding brain drain and its effects on Nigerian’s Higher Education Institutions. Second, is to shed light on the phenomenon of brain drain by looking at data trends and policy developments, and link those to basic theoretical concepts from the social sciences.

1.2 Research Problem and Question

The research problem driving the study is as follows:

*How is the problem of brain drain affecting the Higher Education sector in Nigeria being addressed in governmental policy?*

The above research problem is operationalised along the following (7) research questions:

1. How can the phenomena of brain drain be characterized, and what constitute its primary causes and effects?
2. In what way has brain drain affected the development of Nigeria, Higher Education Institutions in the last two to three decades?
3. What, if any, has been the policy measures so far embarked upon by the Nigerian government to turn around the menace of brain drain?
4. How can the role of Higher Education Institutions in the policy process be characterized?

5. What types of policy instruments are used in practice, and what have been their impacts?

6. What are or could be the major challenges (barriers) facing the implementation of government policies and respective instruments?

7. What, if any, have been the major achievements or outcomes from policy efforts aimed at tackling brain drain across the Higher Education Sector?

1.3 Scope and Delimitation

The focal point of this research is the evaluation of Government level policy with respect to the effect of brain drain on Nigerian Higher Education Institutions. It is a study that demands field work empirical investigation; hence a visit to Nigeria was imperative to facilitate the objective reality of the study. However, due to some logistic reasons and time constraints, travel to Nigeria was hampered and in place of that; data collection was based on desktop policy document i.e. secondary and cohort analysis, and phone interviews. Those interviewed were two:

1) Chief Education Officer with Nigerian Ministry of Education, he was interviewed on the 30th of December, 2009 lasted for 43 minutes 11seconds from 15.20pm. He was improvised because the Minister of Education and the Director of Higher Education respectively could not meet up with earlier agreed appointments but at a very last minute, it was a patience wasted disappointment after several adjustments and rescheduling.

2) The original agreement was to interview the Executive Secretary of Nigerian University Commission (NUC). But for almost a month period of scheduling, and rescheduling with couples of excuses, at last I was told to speak with the Deputy Director/Senior Special Assistant to the Executive Secretary of the NUC. The interview took place on Thursday the 7th of January 2010 at 10.17am, lasted for 31:05minutes. It was almost a lost hope, but suddenly I was called at 22:10pm on the 6th of January 2010 only to discover that it was the deputy director, he asked if I was still interested to have the interaction between 08 to 08 30am the following day, 7th of January, I said yes, and I was ready before 08am the next
morning. However, at last the interview finally took place at 10.17am as earlier mentioned, the rest is now history.

3) The third respondent was to come from the Association of Staff Union of Universities (ASUU), but due to unforeseen circumstances the agreement could not materialise. One reason is that they were busy repositioning higher education institutions after about three months strike to press the Nigerian Government for the implementation of a long time lingering policy agreement.

It was a big lost because ASUU’s response was to provide the opposite side to that from the earlier two who are government representatives. Effort to secure telephone audience with any higher education stakeholder in Nigeria was not an easy task. After about eight to six months of hopeless efforts, an idea came up to hire two representatives who live in Nigeria to make the telephone interview arrangement on our behalf. I asked my representatives on the 7th of January 2010 after the last interview, why it was difficult to secure audience by calling the ministries line from Norway? And why did they give too many excuses and rescheduling of appointment even when agreements have been reached? The answer was said to be all about trust and fear, and of course, reasons for that were not provided.

Other set back is the unavailability of much recent data on the historic perspective of higher education and brain drain in Nigeria, most of the data are either compiled more than two decades back, or a decade ago, however, there are some recent findings and developments that corroborate with the old information thereby energising the argument that nothing much has changed for the past two to three decades.

1.4 Research Methodology

This research is qualitative in nature. Three kinds of qualitative data are: Interviews; Observations; and Documents; (Patton 2001). Due to the fact that the level of analysis in this
study is on government level policy, therefore, observations aspect was not considered, but interview and desktop policy documents have been considered. Qualitative research is chosen here because according to Bryman (2001 p. 266) it “tends to be concerned with words rather than numbers”.

Also the social ontology nature of this study makes interpretivist perspective an imperative choice to examine the social tendencies of a phenomenon. It is “an epistemological position that requires the social scientist to grasp with the objective meaning of social action” (Bryman 2001 p.15). Questions of social ontology are concerned with the nature of social entities (Bryman 2001). Another expression for interpretivism is hermeneutics, a word drawn from theological, but in social science, it is concerned with the theory and method of the interpretation of human action (Wright 1971).

Interpretivism is a word that usually denotes an alternative to the positivist orthodoxy that has held sway for decades. It is predicated upon the view that a strategy is required that respects the differences between people and the objects of the natural sciences (Bryman 2001).

1.4.1 Data Collection

Data collated for this study is a multiple methods perspective; it is so because no one data collection is ideal in every situation. When multiple methods are applied to assess a particular outcome, a richer and more detailed picture emanates, hence, inconsistencies that exist between methods is illuminated and chance of bias caused by a particular method is reduced (HFRP 2004). To this end, two main data collection method have been applied: Interview and documents analysis.

*Interview:*
A semi-structured interview has been used because it emphasizes words. It affords me the opportunity to vary the sequence of questions, and the latitude to ask further questions (Bryman 2001). In this case, the interview is a phone type, one personnel each from the Nigerian Ministry
of Education, marked R1 and The Nigerian University Commission (NUC) marked R2 respectively were interviewed, meanwhile, the interviewer is represented as Q.

**Document Investigation:**
Documents data collection consist of written materials and other documents from organizational, clinical, or programs records; memoranda and correspondence; official publications and reports; personal diaries, letters, artistic works, photographs, and memorabilia; and written responses to open-ended surveys. Data consist of excerpts from documents captured in a way that records and preserves context (Patton 2001).

Documents investigate in this research are those that deal with government policy objective with respect to brain drain and higher education institutions in Nigeria. Unfortunately unavailability of official government policy documents was a big setback. Most policy documents used in this study are desktop materials. These desktop documents are mostly secondary and cohort analysis, however, one advantage of the last two is because “many of the data sets that are employed most frequently for secondary analysis are of extremely high quality … sampling procedures have been rigorous” (Bryman 2004 p.202). Secondary analysis material seem very vita to this study precisely when government policy for brain drain seem not to be available.

Other sources of information is the review of related literatures, mostly those originally collected by other researchers and writers as found in the literature review and background information chapters respectively. The literature reviewed has been of great incentive, because it aided me the opportunity to understand the topic better than I would have understood from the respondents alone. Most questions in the interview guide and even further interrogation during the interviewing and the research questions where derived from the literatures reviewed.

1.4.2 **Data Analysis and Generation of Categories**

All data collected is transcribed for final analysis. This level is concerned with explaining what has taken place during the period of data collection. However, the theoretical prepositions of our
research and the objectives where presumably relied on policy insight of (Gornitzka 1999), from this the research problems and questions where derived. The literatures reviewed played a role at which the factors that enhances brain drain was ascertained, such like the push and pull factors. It is bases on the above that the shape of data collection was planed; it also determined the frequency at which the empirical data to this study is finally analysed and presented.

1.4.3 Validity of Categories

“The validity of research concerns the interpretation of observations: whether or not the researcher is calling what is measured by the right name” (Silverman 2004 p. 289). It also concern with the validation of ideas in regards to the social setting under investigation. By validity, I mean looking at the frequency and distribution of concepts as they apply to the entire data collection process. In this case, can all the data so far collated be seen as objective and credible? The Research can be described and evaluated in terms of three types of validities: construct, internal, and external validities. Each gives us a different perspective on any particular research investigation (Cozby 2006):

Construct validity

Construct validity refers to the adequacy of the operational definition of variables: Does the operational definition of a variable actually reflect the true theoretical meaning of the variable? Since the main theory designed to evaluate Nigeria policy is that from Gornitzka 1999, when I asked respondent R1 his knowledge about government policy with respect to brain drain effect on Nigerian Higher Education Institutions, he responded that government actually set a panel in the past to investigate issues concerning brain drain, but he was not sure any policy to that effect was developed, but rather government have been taking actions with respect to entire university welfare including the teachers working conditions, such as the one that forced teacher to strike.

This response corroborates with desktop documents information that Nigerian government set up a panel in 1988 to investigate issues about brain drain, but what happened to the panel’s white paper is now a history. When I asked respondent R2 same question, he avoided it several times.
With this evidences, it is difficult to argue that Nigerian government has a policy specifically about brain drain and this makes construct validity difficult to ascertain. However, since “some policies are solution driven rather than problem driven” (Gornitzka 1999 p. 17), therefore one could as well perceive those policy reforms of Nigerian Government to reposition the Higher Education Sector as solution driven (providing adequate funding), as such has no need of concentrating on the problem (Brain Drain). From this angle, it could be argued that government has take into consideration the reality of push and pull factors, since the objectives attached to the reform policies is primarily to control capital flight. Therefore this last argument could still make case for construct validity for this study.

**Internal validity**

Internal validity is the degree of congruence between the researcher’s observation and theoretical ideas (Bryman 2001). Furthermore, a study has high internal validity when strong inferences can be made that one variable causes changes in the other variables. I rather refer to as limitation than error, the fact that the time of the interview coincided with the three months strike by the university teachers in Nigeria, it caused a huge time constraints. Error occurred when the Minister of Education backed out of earlier appointment without cogent reasons. In place of him, I was asked to conduct interview with respondent R1 who was almost unprepared. His unwillingness or lack of trust played out when he downplayed the scope of brain drain, blaming it on some external actors such as the media, university teachers and the Diaspora people. See appendix for the details.

Error also may have occurred when the two respondents were of government representatives, biases may have occurred going by some of their responses, such that tried to be more defensive rather than facing the realities of university poor funding for newly three decades as confirmed and agreed by all the data collated. Error occurred when I could not have audience with the Nigerian universities teacher’s union officers ASUU because it would have been a balanced interview data collection, since they are always the major victims to the government’s seemingly under funding, hence the repeatedly showdown with the government.
When R2 was asked to confirm if government decision to reform higher education sector was a policy outcome or administrative framework, he accused me of being biased and urged me to be more positive about Nigeria. When I asked R1 to confirm if government is doing their best to stop brain drain, he returned the question by asking if I expect him to say government is not doing much, knowing that he is a government representative. Again it is as well a difficult position to argue for internal validity. The last error could be my inability to access government policy documents.

**External validity** of a study refers to the extent to which the results can be generalised to other population and settings, i.e., can the results be replicated with other operational definitions of the variables, with different participants, in other settings?

Their responses concerning if government has made any policy with respect to the effect of brain drain on Nigerian Higher Institutions confirms the saying that “it is astonishing that so few government policies to stop this drain have been promulgated in the less developed countries and practically none has reached the legislative stage in the developed countries” (Herbert 2008).

For the fact that it is assumed that Nigeria has no policy with no direct theme as brain drain, could add credence to the above international affirmation. R1’s downplaying the scope of brain drain as media or Diaspora make up, demands more close investigation more so when evidences abound that underfunding constitutes a push factor on Nigerian elites. Therefore I make case for external validity in this study. Number of techniques may play a role here to establish the validity of the categories raised. I believe the findings of my data have been incorporated into models, or delimitation of theories, the presentation of evidence and proof will take turn in chapter 5, but before then, the next section (Theoretical Framework Chapter) introduces the tool for the evaluation of the main variables of this research.
2. **Theoretical Framework**

This study is mainly concerned with the level at which government policy influences or changes a phenomenon, applying the potential diffusion of values, objectives, or noticeable tensions that exist among different stages of policy formation. Since the targeted problem to be addressed in this study constitutes national concern, therefore, policy is not just guiding principle for exploit, “but also expression of faith, values and beliefs and instruments of (civic) education” (Gornitzka 1999 p.15).

History of Nigerian Higher Education Institutions from mid 1980s till the time of this study have been characterised with seemingly setbacks due to the effect of brain drain as established in the background chapter. It has attracted both academic and political discourses, debates, texts and decisions that tend to constitute Nigerian Government policy formations.

2.1 **Policy**

It is worthy at this point to ask, what represents a policy, i.e. by what standard on the list of various subject deliberated, words printed, and resolution prepared, amount to a government policy? There are two outstanding policy definitions to be considered:

1. **“an object of legislative choice, linked to a decision in an elected assembly at a national level and with a parliamentary stamp of approval”**. Gornitzka (1999 p.14).

2. **“A public statement of an objective and the kind of instruments that will be used to achieve it”**. Gornitzka (1999 p.14).

These two definitions above will be considered as major tools when evaluating government policies and to operationalise the problems and questions with respect to the effect of brain drain on Nigerian Higher Education Institutions. Reason is because the challenge of this study is a national concern, therefore the possibility of policies with parliamentary stamps of approval may
not be ruled out. However, it is certain that not all government talk or deeds exemplifies a policy, more so when there is no critical resolution or lawfully certified text that can be attached as signifying a policy (Gornitzka 1999).

The second definition serves as alternative, because it includes intentions expressed by the system without a national parliamentary authority, example is the setting up of an investigative panel or board delegated by an executive authority. However, the action must represent an expression of will regarding a given social phenomena/problem (such as brain drain) with the instruments considered fit to solve it.

Second question is vital as to know how one deal with the first, i.e. when do any of the above procedures stop being policy formation and become policy implementation? The understanding here seems necessary because, policy has been referred to as hypothesis, while programme indicates the translation of a hypothesis into government act. The level to which the envisaged effects take place is referred as implementation, i.e. the creating of subsequent ties in a connecting string so as to get the desired outcome; hence, a programme becomes the intermediary phase linking policy and implementation (Pressman et al., 1971: cited in Gornitzka 1999).

2.2 Policy Process

The process of public policymaking has commonly been depicted in terms of a natural logical sequence. Through the accumulation of information, a troubling social condition comes to light and is documented. Next it is the job of public officials to assess that problem and its causes and to respond as efficiently as possible through such means as new legislative enactments. Attention continues until the distressing concern is alleviated. This rationality perspective has been utilized by many writers on the governmental process, appearing in such varied disciplinary literatures as economics, political science, management, administrative science, and budgeting (Dye 1984: cited in David et al., 1993).
Due to the challenges involved to manage and position higher education for growth and certainty, stakeholders do not hence take issues of policy for granted. Therefore what seems to be most fundamental on mind is on the way in which the process of policy-design and policy-formation take place (Gornitzka 1999). Hence, factors that cause institutional change, she continues, could be perceived through two main viewpoints:

- First, we can take on an exchange view of policy making and see policy change as the result of changes in the political coalition and as the result of new bargains struck between policy making actors when resource are redistributed. Such a perspective sees policy formation as strategic goal directed behaviour and problem solving under conditions of conflicting interests.

- Second, an institutional perspective would see policy change as driven by rules as well as taken-for-granted assumptions about appropriate behaviour. It would focus on how policy processes attempt to affect the values and beliefs about the nature of higher education and knowledge production and its role in society (Bleiklie et al., 1995: cited in Gornitzka 1999).

The link between the two points above is that “an organization does not and cannot exist in a vacuum but has to interact with its environment for achieving its basic objectives” (Gornitzka 1999 p. 2). It therefore implies that, the interaction, to a certain degree affords the organization to rely on their environment for supposedly essential resources in the form of financial supply, raw materials, workforce and others.

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2 “Higher education offers a rich and varied landscape for the application of institutional analysis. Universities themselves have traditionally been defined as institutions” (Dill, 2004, p.1). “about eighty-five institutions in the Western world established by 1520 still exist in recognizable form, with similar functions and unbroken histories, including the Catholic Church, the parliament of the Isle of Man, of Iceland, and of Great Britain, several Swiss cantons, and seventy universities. Kings that rule, feudal lords with vassals, guilds with monopolies are gone. These seventy universities, however, are still in the same locations with some of the same buildings, with professors and students doing much the same things and with governance carried on in much the same ways” (ker, 1982: p. 152, cited in Dill, 2004, p.2). “The co ordering effects of the academic labour markets are major. they are intertwined with those of the institutional markets” (Clark, 1983, p. 165), “Public policies on academic quality are therefore a particular apt field for the application of institutional framework” (Dill, 2004, p. 3). “Diversity among institutions or, at least, institutional types, is a policy objective that most systems of higher education pursue although to different degrees. North America colleges and universities, for example, are among the most diverse in the world” (Lang, et Al., 2004, p. 1).
2.2.1 Policy Content

Policy content is better considered in line with the theory that necessitates the formation; hence it is the theory that underlines the specific tendency of policy content. A policy theory therefore in addition with its normative framework, i.e. policy ideology, is acknowledged as the total of casual and other assumptions underlying a policy (Hoogerwerf 1990: cited in Gornitzka 1999).

However, despite that the analysis of policy content encompasses the investigation of policy theory underlying a specific policy, according to Gornitzka (1999), yet the analysis of each of the specific policies shall be characterised in line with the limited attributes and dimensions as set aside in this study, visa vis, the analysis of government policies with respect to effect of brain drain on the development of Nigerian’s Higher Education sector.

2.2.2 Policy Problem

Accordingly, policy problems constitutes a societal problem that a policy is intended to rectify, and those conditions that have been identified by people in and around government as the main policy issues (Gornitzka 1999). It is practical therefore that before policy making is considered, there must have been a risen challenge to be tackled. Policies are as well solutions that are more or less stable, yet are positioned to tackle problem that vary both across time and different national standards. But the overall understanding here is that policies are either solution or problem driven (Gornitzka 1999).

2.2.3 Policy Objectives

Policy objectives depend if it is directed at changing, adjusting or maintaining behaviour of a targeted organization, phenomenon or group. In our case, it could possibly require innovation and maintenance policy since it concerns social experiment (Lane 1993). Policy objective could
as well be characterised according to the dimension of the problem it is aimed at. Outcomes of policies depend on their intentions; they are more likely to succeed if their intentions are focused and well defined rather than ambiguous (Olsen 1989: cited in Gornitzka 1999).

However, policies in most cases seem to have multiple, conflicting and vague intentions because the policy formulation process is marked by contending parties with different interest and values. The price one pays for accommodating them are policies with inherent tensions and contradictions (Cerych et al., 1986: cited in Gornitzka 1999). Even though this may sound like ambiguous and unclear setting, yet ambiguity might be a precondition for getting things done in cases where clarity would bring contending parties involved in both policy makings and implementations to a stalemate and consequent non-action (Gornitzka 1999).

However, ambiguity of policy is problematic in the sense that it makes it difficult for policy makers to gather information on whether implementing institutions are complying or not. It is also described as a prerequisite for a ritualistic compliance to external institutional requirements (Meyer et al., 1977: cited in Gornitzka 1999).

### 2.2.4 Normative Basis of Policy

The objectivity of a policy and the targeted problems it is positioned to handle constitute its normative basis. Though it is assumed as institutionally oriented, yet it constitutes the pivot at which the wheels of a policy rotate. It is important because they relate to the issue of whether there is a normative match between a specific government initiative and the values and identities of institutions a policy is targeted at (Gornitzka 1999).

Although the normative basis of a policy, despite its importance, seems hard to unravel because they are the integral parts of policy subsystems and policy networks to the extent that they could be taken for granted. Accordingly, the analysis of policy discourses and the language of policy are one way of disclosing such normative frameworks, especially when policy languages and discourses are changing (Gornitzka 1999).
2.2.5 Policy Instruments

No matter the context, target, and normative assumptions of a policy, it remains a wishful thinking unless measures are applied to enforce its objectives (Hood 1993: cited in Gonitzka 1999) he uses a scheme refers as “NATO” to categorize and explain policy instruments, as follows: 1) Nodality (information); 2) Treasure (money); 3) Authority (legal official power); and 4) organizations; In his view, these are fundamental government mechanisms by which the steering wheel of authorities is exercised on the subjects:

- **Nodality** refers to the central position of government in societal communications and its ability to ‘send out’ information which it judges to be necessary or relevant.

- **Authority** refers to the ability of government to issue binding laws, i.e. to formally restrict the behaviour of the targeted subjects.

- **Treasure** refers to government control of money and other resources.

- **Organization** refers to the public bureaucracy and its ability to implement programmes, and to monitor environments.

Although Linders et al., (1990) in (Gornitzka 1999), could not understand how the tool of organization can be an instrument without some kind of money or funding attached to it. They maintain that often organization is a prerequisite for governments to employ information or funding as a policy instrument. However, despite the strong opposition, yet it is argued that the categorization can be used to identify the dominant policy instrument(s) attached to a given policy and to identify the blend of different policy instruments within each policy/programme (Gornitzka 1999).

In addition to the support of Hood’s (1993)” in (Gornitzka 1999) categorization, it is assumed that we can use it to describe how restrictive each policy instrument is, given that the four types
of government tools display varying levels of constraints with respect to the aimed at behaviour of societal actors (Maassen 1996: cited in Gornitzka 1999).

2.2.6 Policy Linkages

This component of the policy processes is significant regarding neo-institutional viewpoint, because policy linkage focuses on the issue whether policies are linked to broader tendency, basically on policy that concerns both the public and private sectors. If going according to Gornitzka (1999), it means that the degree of coherence/consistency/reliability of policies and policy linkage over time and over policy fields is empirical because it assesses the extent to which the content of policy is breaking with or continuing the content of other government policies, and not necessarily the behaviour of intended policy targets.

The overall degree of policy-coherence makes up an important intake into the way that environment of higher education institutions are being linked to other sectors of important. It is then argued that reforms can only succeed if they try to change institutions in ways consistent with long term trends in society, i.e. success of comprehensive policies is dependent upon policy not going against the “tide” (Olsen 1989: cited in Gornitzka 1999). Before putting this chapter into action, the detailed information of the background at which this chapter will operate have to be highlighted first, hence the background information chapter follows next.
3. **Background Information**

3.1 Historic Perspective

Higher education system in Nigeria is composed of universities, polytechnics, institutions of technology, and colleges of education that form part of, or are affiliated to universities and polytechnic colleges, and professional, specialized institutions (IAU 2000). They can be further categorised as state, federal, and private universities, and as first, second, or third generation universities (Hartnett 2000).

As of 2005, Nigeria had a total of 20 teaching hospitals. The various teaching hospitals collaborate with their universities in all matters affecting teaching, research and clinical services. Some of the teaching hospitals are centres of excellence, having distinguished themselves in medical practice in designated areas from inception to early 1980s. What qualifies them as centres of excellence is the calibre of their medical personnel and their medical practice. However, that has become history, because the migration of such high calibre medical personnel has caused a great loss to the system (NMA 2005). In the overall, Nigeria has a total number of one hundred and eight (95) universities, as illustrated below in table 3.1.

**TABLE 3.1: Proprietorships & Student Populations (2006/2007)**

<table>
<thead>
<tr>
<th>Ownership Of Universities</th>
<th>Number (2009)</th>
<th>Sub-Degree</th>
<th>Undergrad.</th>
<th>Post-Grad</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEDERAL</td>
<td>27</td>
<td>49,999</td>
<td>503,154</td>
<td>57,300</td>
<td>610,453</td>
<td>55.7</td>
</tr>
<tr>
<td>STATE</td>
<td>34</td>
<td>8,734</td>
<td>419,901</td>
<td>19,459</td>
<td>448,094</td>
<td>40.9</td>
</tr>
<tr>
<td>PRIVATE</td>
<td>34</td>
<td>357</td>
<td>36,641</td>
<td>767</td>
<td>37,765</td>
<td>3.4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>95</td>
<td>59,090</td>
<td>959,696</td>
<td>77,526</td>
<td>1,096,312</td>
<td>100.0</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>5.4</td>
<td>87.5</td>
<td>7.1</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Three levels of university education exist in Nigeria. The university level first stage offers a bachelor’s degree after a minimum of three years and a maximum of six years (e.g. in medicine). The university level second stage offers a Master’s degree following one year of post-Bachelor’s study. The university level third stage offers the doctorate degree two to three years after the Master’s. To gain admission into the first level of university education, one has to pass the competitive University Matriculation Examination (UME 2000).

Higher education in Nigeria can be further divided into two the public or private, and the university or non-university sectors. Public universities, owned by the federal and state governments, dominate the higher education system. Private universities and other tertiary education institutions are a recent phenomenon. In recognition of the need to encourage private participation in the provision of university education, the Federal Government issued a decree in 1993 allowing private investors to establish universities following guidelines established by the government (ADEA 2000).

The non-university sector is composed of polytechnics, institutions of technology, colleges of education, and professional institutions, most of them operating under parent ministries of education. There is no sharp distinction between the university and the non-university sectors; most of the institutions in the latter sector are affiliated with universities and together make up the higher education sector (Hatnett 2000).

The Nigerian higher education system, in spite of being Africa’s largest higher education system with more than 400,000 students, is unable to admit all qualified applicants every year (ADEA 2000). Numerus clausus\(^3\) is applied in admission to some disciplines determined by the National Universities Commission (NUC) and conditioned by the availability of instructional facilities at the level of institution (IAU 2000).

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\(^3\) *Numerus clausus* as a term represents level of grading or cut off marks in other to qualify for admission into a stipulated discipline in the Nigerian University system
Three parallel strategies are being pursued in order to expand access to higher education in Nigeria. First, distance higher education programs are being established; second, good quality private universities are being encouraged and third, plans are in the works to expand all university campus enrolments to a maximum of 30,000 students (ADEA 2000).

The participation rate in higher education is 395 per 100,000 persons. Women accounted for 34 percent of total enrolments in the 1997/1998 academic year. “Female students also represented 35 percent of new entrants in the same academic year, a significant increase from the 26 percent recorded in 1988/89” (Hartnett 2000 p.4).

The Federal Government controls universities and other higher education institutions through the following organs: the Federal Ministry of Education; the National Universities Commission, which among other things allocates funds to federal universities and also prescribes the spending formula, and the Committee of Vice Chancellors of Nigerian Federal Universities, which acts as a coordinating body and offers advice to government and universities governing councils on matters of general and specific concern to higher education. Each university is administered by a Council and a Senate, and is headed by an appointed Vice Chancellor as CEO. Within universities and colleges, the institutes and centres are more autonomous. The Academic Staff Union of Universities (ASUU) safeguards the interests of the academicians in the Nigerian university system.

Private universities, which do not allow trade unionism, have experienced a dramatic increase in the number of candidates applying for admission. But only students from middle and upper class families who can afford the high fees are applying - including the children of staff in strike-crippled public universities.

Private higher education in Nigeria has grown rapidly. According to figure 3.1, there are 34 private universities, and 61 public universities, these are financed by Private organizations.

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4 These figures have increased according to the information gathered while fielding question with my respondent from the Federal Ministry of education but the factual data could not be readily available.
Federal and Regional governments respectively (Okojie 2008). In 2000, the National Universities Commission allowed public universities to admit around 138,000 new students and private universities to admit 32,000 students - numbers based on the carrying capacity of institutions, including their infrastructure and staff strength (Banya et al., 2001).

Despite the limited carrying capacity of private universities, there has been an unprecedented increase in the number of would-be students applying for places in them. A major reason is the constant strike actions by the ASUU, a recently called off strike was one of the longest and it has discouraged parents from sending their children to these institutions. Parents have voiced fears that industrial action and occasional student unrest has affected teaching and research, and made the public university calendar unstable and unpredictable (Banya et al., 2001).

3.2 Accreditation Criteria and Funding Formula in Nigerian Universities System

This level is concerned with seemingly detailed account of the steps so far taken by Nigerian Higher Education Sector stakeholders in the last two decades plus. Accreditation and funding or cost sharing as they relate to higher education form to a large extent the footing at which any establishment is referred as such.

3.2.1 Accreditation Criteria

The term accreditation, as used in this paper, means a system of evaluating academic programmes as having met the provisions of the minimum academic standards document of

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5 “Nigerian university teachers went on strike from mid June, 2009 till 15th September, 2009, to demand for the implementation of a reformed funding policy for Nigerian Higher Institutions reached more than two decades ago between the University and the Government (Nigerian Tribune, 15th September, 2009). This strike therefore poses a question of the normative bases at which a policy was formulated in the first place.”
National Universities Commission (NUC). The Legal basis for accreditation of Academic Programmes in Nigerian Universities is derived from Decree No. 16 of 1985 section 10 of the Decree as amended and incorporated in section 4 (m) of the National Universities Commission Amended Decree No. 49 of 1988 empowers the Commission to lay down minimum standards for all universities in the Federation and to accredit their degrees and other academic award (NUC 2002).

Apart from ensuring that programmes do not fall below benchmark minimum academic standards, accreditation exercise also serve to assure employers of labour, and both local and international community that Nigerian graduates have attained an acceptable level of competence in their areas of specialization (NUC 2002b).

It is of interest to note that one of the most propelling reasons for intensive accreditation visits to Nigerian Universities was the fear that private universities may compromise the high standards of Nigerian Universities System. This fear was further raised by the interest shown by many private agencies to set up universities. It was therefore generally believed that a government regulatory agency was necessary to maintain and enhance standards of university education in Nigeria in view of the expected rise in numbers (NUC 2002b).

One must admit at the onset that accreditation performance is just one out of, at least, twelve criteria for assessing academic performance of universities. Other performance indicators include: compliance with carrying capacity (admission quota), proportion of the academic staff of the university at full professional level, foreign content (staff), foreign content (students), proportion of staff with outstanding awards, internally generated revenue, research output, student completion/dropout rate, Ph.D graduates output, stability of university calendars and students to computer ratio (Bashir 2002).

However, in order to ensure uniform standards for comparing, this study is based on the results of accreditation visits to these universities. Moreover, NUC accreditation criteria include elements of almost all the other performance indicators. Accordingly, results of NUC
accreditation visits of May 2005, Nov. 2005, Nov. 2006 and Nov. 2007 have been used for this assessment (Okorie 2008).

### 3.2.2 Funding Formula

The Federal Government maintains a policy of no tuition fees in federal universities while at the same time allowing students enrolled in state universities to pay tuition fees in addition to room and board. In May 2002, the Federal Government issued an order “forbidding” the charging of tuition fees at all 27 federal universities as these universities were contemplating charging tuition fees as a cost recovery strategy. The Government believes that it has a duty to provide qualified Nigerians with free university education. Before the presidential decree, federal universities intended to charge a tuition fee ranging from US$ 200-400 per semester (Higher Education Chronicle 2002).

The Government through the National Universities Commission makes it mandatory for all higher institutions to generate 10 percent of their total yearly funds internally through various revenue diversification means (Odebiyi et al., 1999).

The Education Tax Decree No. 7 of 1993 enforces the payment of 2 percent of profits of limited liability companies registered in Nigeria as an education tax to be disbursed according to the ratio of 50: 40: 10 to higher, primary, and secondary education respectively. The share of higher education is further allocated to the universities, polytechnics, and colleges of education according to the ratio of 2: 1: 1 respectively (Ajayi et al., 1996).

As of summer 2002, no information was available to show the amount of funds collected and disbursed since the promulgation of the education tax decree. It is known that the Education Bank was supposed to be a depository of the funds collected through the decree (Boateng 2002).

All federal universities receive the bulk of their financing (almost 95 percent) from the Federal Government through the National Universities Commission (Hartnett 2000). Furthermore, the federal universities’ budgeting processes and expenditures have to adhere to budgeting and
expenditure formula stipulated by NUC as follows: 60 percent total academic expenditure; 39 percent for administrative support; and 1 percent for pension and benefits (ibid). At the general level, four sources finance university education in Nigeria (Ogunlade, 1989):

(a) Support from federal and state governments constituting more than 98 percent of the recurrent costs and 100 percent of capital costs,

(b) Student contributions towards living expenses on campuses constituting less than 1 percent of the total operating costs of institutions. While there is no evidence to suggest this percentage of students contribution is capped by the government, anecdotal evidence suggest that successive administrations in Nigeria (civilian and military) have been reluctant to charge more than nominal fees probably to obtain and maintain public support. Charging realistic fees has been unpopular among policy makers (ibid).

(c) Private contributions by commercial organizations in the form of occasional grants for specific\(^6\) purposes, and,

(d) Interest earnings on short-term bank deposits and rents of university properties\(^7\).

Other sources of finance to higher education in Nigeria include endowments, fees/levies, gifts, and international aid from international organizations. For example, the World Bank has financed a US$ 120 million project titled: Federal Universities Development Sector Operation (Odebiyi 1999) (Babalola et al., 2000).

In continuation with issues concerning Cost Sharing Measures in Higher Education in Nigeria and to respond to the problem of chronic under-funding, Nigerian public universities adopted an array of cost sharing measures, notable among them being the following (Ajayi et al., 1986):

\(^{\text{6}}\) Details of this specific purpose could not be ascertained, or could it be grants for R&D?

\(^{\text{7}}\) I tried to find what actually are being rented from the universities and by whom, but all to no avail. Should I not succeed at last to get the detail, I therefore suggest for further investigation.
1. Student contributions. Student contributions are made through a multitude of fees: tuition in state and private institutions, acceptance, registration and certification, caution (equivalent to security deposit in US), sports, identity cards, late registration, examination, laboratory, transcript, and medical centre registration fees. These fees vary in amount paid from one university to another.

2. In all federal universities, undergraduates pay the following fees: examination NGN 200 (US$ 3.7); registration NGN 150 (US$ 2.77); Students Handbook for new students NGN 200 (US$ 3.7); accommodation (excluding food) NGN 90 (US$ 1.66); hostel maintenance NGN 200 (US$ 3.7); sports NGN 150 (US$ 2.77); and acceptance fees for new students NGN 300 (US$ 5.55). Other amount of fees charged include: caution NGN 100 (US$ 1.85) for science students and NGN 150 (US$ 2.77) for arts students; students union fees NGN 60 (US1.11); medical registration NGN 100 (US$ 1.85), identity card NGN 400 (US$ 7.40); departmental registration NGN 50 (US$ 0.92) for parent department and other departments NGN 25 (US$ 0.46), and library fees NGN 50 (US$ 0.92). Students also are required to pay NGN 300 (US$ 5.55) for management information system; NGN 200 (US$ 3.70) for examination results verification for new students; and late registration NGN 1000 (US$ 18.51) (J.D. Amin 2002). Students’ contribution to university financing for the period 1988-1994 ranged from 0.28 percent to 3.89 percent (Ajayi et al., 1986).

Private sector contributions.
Contributions from the private sector to education in Nigeria are limited to the endowment of prizes and professorial chairs, and voluntary donations. Campaigns to raise endowment funds in Nigerian universities dates as far back as the 1950’s when the University College, Ibadan started an endowment drive. From 1988-1994, the University of Ibadan generated approximately NGN 22.02 million from endowments and grants, which was the highest during the period (Ajayi et al., 1986). Decree # 9 of 1993 authorizing individuals and private organizations to establish private higher education institutions has also enhanced the private sector contribution to financing of higher education.
National Youth Service Corp Scheme is another cost sharing measure adopted by the Federal Government. The scheme was introduced in 1973 for graduates of universities, polytechnics, and colleges of education. Participation is mandatory for holders of first degrees and higher national diplomas from polytechnics and universities from within and outside Nigeria who have not attained the age of 30 years (Ajayi et al., 1996). These graduates offer their services to the community/nation for a period of 12 months for a monthly stipend of N 900. This scheme becomes a cost recovery measure because these graduates do not collect full salaries and allowances for the services rendered to the community that presumably would have been paid for by the government or the community.

3.2.3 Lecturer/Student Ratio

When the total number of academic staff (12,395) is related to the number of students (236,261) Federal (Office of Statistics 1996), a lecturer/student ratio of 1:19 should be considered much lower than the UNESCO norm of 1 lecturer to 10 students. Table 3.2.3 shows comparative lecturer/student ratios for five developing African countries including Nigeria, two middle-income countries in Latin America as well as two developed countries in Europe. The ratio of 1:8 for Kenya and Zimbabwe is higher than the UNESCO norm, while Ethiopia, (1:18), Nigeria, (1:19) and South Africa (1:28.5) have ratios that are lower than the international norm (Yesufu 1996).
Table 3.2.3: University Lecturer/Student Ratios in Selected Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Lecturers</th>
<th>Students</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
<td>1,440</td>
<td>26,415</td>
<td>1:18</td>
</tr>
<tr>
<td>Kenya</td>
<td>4,392</td>
<td>35,421</td>
<td>1:8</td>
</tr>
<tr>
<td>Nigeria</td>
<td>12,395</td>
<td>236,261</td>
<td>1:19</td>
</tr>
<tr>
<td>South Africa</td>
<td>13,326</td>
<td>380,184</td>
<td>1:28.5</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>1,618</td>
<td>13,045</td>
<td>1:8</td>
</tr>
<tr>
<td>Mexico</td>
<td>72,742</td>
<td>125,207</td>
<td>1:7</td>
</tr>
<tr>
<td>Brazil</td>
<td>172,828</td>
<td>1,716,263</td>
<td>1:10</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>97,274</td>
<td>923,878</td>
<td>1:9</td>
</tr>
<tr>
<td>Germany</td>
<td>243,303</td>
<td>1,856,542</td>
<td>1:7.6</td>
</tr>
<tr>
<td>UNESCO Norm</td>
<td></td>
<td></td>
<td>1:10</td>
</tr>
</tbody>
</table>

(Source: UNESCO Statistical Yearbook, 1997)

Using the above ratios as indicators of part of the responsibilities of university lecturers in the five African countries, it becomes obvious that the average university lecturer in Ethiopia, Nigeria and South Africa carries much heavier burden than his counterpart in Kenya or
Zimbabwe. For example, the case of Nigeria may even be worse because of the constraints under which the academic staffs in this country are forced to work (Mbanefoh 1992). When the Nigerian ratio is further compared with those of middle income countries like Mexico (1:7) and Brazil (1:10) or with those of the advanced countries like the United Kingdom and Germany that have ratios higher than the UNESCO standard, the enormity of the load shouldered by the Nigerian university lecturer can be further appreciated. The situation in the Nigerian university is probably worse than in most of the countries shown in Table 3.2.3 (Bangura 1994).

A onetime Pro-Chancellor of one of the Nigerian universities and Professor of Economics Yesufu (1996 p.73) aptly describes the pathetic picture of the Nigerian university when he submits that:

“... The student-teacher ratios are worsening in virtually all disciplines. Laboratories are either non-existent or completely denuded of essential equipment and experimental consumables. Libraries cry out for updating with current books, periodicals and research findings. Teachers are grossly underpaid and many have had to resort to migration to other countries to seek how to keep body and soul together, and further their intellectual development. Many others have abandoned academics to the greener pastures of the private industry, the banks and consultancies. Part time jobs and moonlighting have become the rule than the exception”

Consequently, Yesufu (1996) concludes that the quality of graduates is so poor that their impact on the national economy in terms of productivity is generally below the required standard for a developing economy. As a result of lack of qualified academic staff the enrolment for graduate studies has also declined.

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8 Brain drain may have affected these other countries on different sectors of the economy than the lecturer student’s ratio in Nigerian case. My concern is not to probe into a broad spectrum of brain drain effect on these other countries.

9 It is worth stressing that the current study does not intend to investigate issues of economic development of Nigeria.
No educational system can be better than those who operate it, that is, the teachers who constitute the intellectual resource pool which ensures that present and future human and social capacity can be developed, managed and sustained. Today, the Nigerian university system continues to suffer from intellectual haemorrhage created by the problem of brain drain. This is more so in the very critical\textsuperscript{11} fields of human medicine, pharmacy, computer science, engineering etc (Mbanefoh 1992).

\footnotesize
\textsuperscript{10} Just 15\% of academic staff were female in 1998, up from 12\% in 1988 but proportionately far below the one-third female share of enrollments. In 1998, the highest percentage of female enrollment (46\%) was found at the University of Nigeria Nsuka (Hartnett 2000).

\textsuperscript{11} This compares with an average staff/student ratio of 1:30 among the state universities (NUC 2002).

\textsuperscript{11} The poor graduate awards on science oriented areas is an indication that these are fields in which the teachers are the most affected by brain drain (Higher Education Policy 2003).
3.2.4 Post Graduate Awards

Table 3.2.4: Post Graduate Awards By Nigerian Universities (Year Ending June 1993)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>519</td>
<td>436</td>
<td>469</td>
<td>621</td>
<td>734</td>
</tr>
<tr>
<td>Agriculture</td>
<td>319</td>
<td>306</td>
<td>213</td>
<td>421</td>
<td>439</td>
</tr>
<tr>
<td>Arts</td>
<td>374</td>
<td>390</td>
<td>441</td>
<td>464</td>
<td>234</td>
</tr>
<tr>
<td>Education</td>
<td>1,751</td>
<td>2,055</td>
<td>1,229</td>
<td>1,972</td>
<td>1,082</td>
</tr>
<tr>
<td>Engineer &amp; Technology</td>
<td>275</td>
<td>217</td>
<td>305</td>
<td>226</td>
<td>112</td>
</tr>
<tr>
<td>Environmental Design</td>
<td>267</td>
<td>170</td>
<td>210</td>
<td>159</td>
<td>41</td>
</tr>
<tr>
<td>Law</td>
<td>121</td>
<td>138</td>
<td>151</td>
<td>226</td>
<td>6</td>
</tr>
<tr>
<td>Medicine</td>
<td>141</td>
<td>152</td>
<td>157</td>
<td>260</td>
<td>77</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>28</td>
<td>15</td>
<td>39</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Sciences</td>
<td>420</td>
<td>474</td>
<td>620</td>
<td>481</td>
<td>276</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>849</td>
<td>881</td>
<td>1,127</td>
<td>1,218</td>
<td>847</td>
</tr>
<tr>
<td>Veterinary Medicines</td>
<td>87</td>
<td>14</td>
<td>18</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>918</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>5,149</td>
<td>5,148</td>
<td>4,991</td>
<td>6,925</td>
<td>3,818</td>
</tr>
</tbody>
</table>


A critical look at Table 3.2.4 shows the decline in postgraduate awards by Nigerian universities from 5,149 in June 1988 to 3,818 in June 1992. Nevertheless, one can safely conjecture that given the impact of the attractiveness of off-shore employment opportunities for Nigerian scholars, the Nigerian universities have continued to suffer from serious intellectual set back. For
the very few, who embark on graduate studies, the university does not offer them any attraction for employment (Oni 1987, 1991).

The relevant question to ask is; why would future workers in a critical knowledge\textsuperscript{12} industry (university) prefer to work outside the intellectual environment that has produced them? In other words, when it is recognised that inter-generational succession is a necessary condition for the maintenance of international competition in the knowledge industry, is the Nigerian system unable to sustain itself? The answer is simple; according to Oni (1987 p. 22) the Nigerian university system is unattractive to any young and ambitious man or woman. With lack of facilities for work, low pay and frustration in the context of rising expectation the Nigerian University lecturer is dissatisfied, he maintains that;

\begin{quote}
"Through his or her experience, the Nigerian graduate student becomes aware of what goes on through his externalised analytic structure and his ego-centred cognitive map. The individual is able to interpret this map because he or she is located within it, this map then presents the configuration of (economic) opportunities. Thus, while the Ibadan respondents ranked university teaching post as fifth, it diminished into a non-desirable future career to be aimed at among Lagos university graduate students."
\end{quote}

The low ranking accorded university academic work by Nigerian graduate students has very serious implications for the future development of the university in Nigeria in the twenty-first century. This is because the graduate students of today are supposed to be the intellectual giants and scientific innovators of tomorrow. Their preference contrasts sharply with the motivation for postgraduate studies among their peers in Britain and other European countries (Rudd, 1975), whose motivation for research and pursuit of knowledge is sustained by a long tradition of the search for new ideas and global competition.(Oni, 1991, p.51).

\textsuperscript{12} Nigerian university system was positioned for the generation of knew knowledge as demonstrated in the introduction, but this study will not go into such details.
The situation seems to get worst by the likely inability of the Nigerian university system to retain even the very few academics it has (Onweh, 1997; Bashir 2002). This is due to the problem of brain drain earlier mentioned. The total number of lecturers in the Nigerian universities was 12,977 in 1992. This total number declined to 12,064 in 1995. In other words, according to Yusufu’ (1996) analysis, a total of 883 lecturers left the universities between 1992 and 1995. With an average separation rate of 294 per annum, the problem is very significant. Worse still is the distribution of the separation rates from the system between different disciplines.

The quest for meeting these basic education needs has been the cause of unending crises between government, and the trade unions such as Academic Staff union of Universities (ASUU), Non Academic Staff Union of the universities (NASU), etc. The effect of the financial crises on academicians, apart from fear of low income, also the overall low condition of the service, the fear of retrenchment due to lack of funding to the sector, may likely become addition to the Nation’s unemployment figure (Nwagwu 1997).

3.3 Nigerian Higher Education and Economy

Political intervention in the higher education system under a series of military governments between 1980s and 1990s imposed distortions and constraints on the system’s development mostly on the economic development. By 1980, Nigeria had established a well-regarded higher education system offering instruction at an international standard in a number of disciplinary areas. However this sparkling reputation steadily tarnished (NUC 2007).

Outside the university that was usurped by various central military government, incentives and rewards for research productivity, teaching excellence and associated innovations gradually disappeared. In consequence, research output dropped, educational quality declined, and management structures rigidified (NUC 2007b).
### 3.3.1 Budgeting and Funding

The Federal Ministry of Education (2003) agreed that 1978 – 1999 period was an ill period for Nigeria education system because of political instability and financial inadequacies due largely to general economic downturn of the 1980s.

Apart from the problem of poor funding and lack of opportunities for self actualisation, there is a general lack of motivation due to poor wages. Within the domestic labour market, Nigerian lecturers constitute the least paid workers (Shah 2001). Table 3.3.1 presents comparative salary scales.

#### Table 3.3.1: A Comparison of Average Salaries in Different Sectors of the Nigerian Economy.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Salary per Annum in NAIRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Sector (oil)</td>
<td>450,000 - 600,000</td>
</tr>
<tr>
<td>Public Sector (Iron &amp; Steel)</td>
<td>300,000 - 400,000</td>
</tr>
<tr>
<td>Nigerian Economy (Average)</td>
<td>100,000 - 200,000</td>
</tr>
<tr>
<td>University Academic Salary</td>
<td>30,000 - 54,000</td>
</tr>
</tbody>
</table>

Source: ASUU, National Secretariat Publication, 1997

Exchange rate = 80 NAIA: 1 dollar.
The wage differentials between the university and other sectors of the economy are a major cause of frustration and disillusionment among present and future generation of academic staff (Oni 2000). Worse still is the comparative disadvantage suffered by Nigerian academicians vis-a-vis their peers in other African countries, as shown in table 3.3.1b:

Table 3.3.1b: Academic Staff Salaries in Selected African Countries

<table>
<thead>
<tr>
<th>Countries</th>
<th>Academic Salaries per Annum (US $)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lecturer</td>
</tr>
<tr>
<td>Africa South</td>
<td>15,000</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>12,000</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>3,600</td>
</tr>
<tr>
<td>Kenya</td>
<td>3,600</td>
</tr>
<tr>
<td>Ghana</td>
<td>1,800</td>
</tr>
<tr>
<td>Nigeria</td>
<td>222</td>
</tr>
</tbody>
</table>


The Nigerian academic staff pay package for a professor is about 1% compared to that of his contemporary in South Africa, 7.32% (Ethiopia) and 9.15% (Ghana). Although allowance must be made for inter-country relative cost of living, wage policy etc., the Nigerian lecturer=s pay is a major cause of out-migration to South Africa and the middle-eastern countries (Oni 2000).

Nation states invest in university education because society expects them to contribute to development in critical areas of national priorities. A university is able to perform these
complementary roles if it has the corps of intellectuals in the right number, quality and composition. It is this important human resources requirement, which seem to be inadequate that may be further depleted by the present conditions (Shah 2001).

In 2001, Federal Government of Nigeria agreed to increase the lecturers’ salaries by 53%, while senior and junior staff would receive 25% more. The new salary scale also favours laboratory, ICT technicians and engineers. Under the old salary structure, higher education institutions struggled to recruit competent staff in these fields (Fatunde 2009).

However, in reaction to the recent call off strike by the Academic Staff Union of Nigerian Universities, on the 1st of November 2009 after signing Memorandum of Understanding (MOU), Fatunde says:

“Nigerian universities have reopened after three months of paralysing strikes by unions. ... A stumbling block, however, may be a lack of funds to implement the core areas agreed on by the parties because of the country’s economic crises” (Fatunde 2009 issue:0040).

It is understood that from the time Prof. Febian Osuji was handed over from Prof. Babalola Borisade as Nigeria’s Minister of Education to Mach 2007 when ASUU went on a long strike, the union do apply forewarning strikes to attract the attention of the government to the non implementation of the 2001 agreement (Obasi 2008).

“... the truth remains that the breach of policy agreements by successive federal administration seems to have contributed immensely to the non-resolution of the three decades of conflict between the Academic Staff Union of Universities (ASUU) and the Federal Government of Nigeria” (Daily Champion, 12 March 2008, column 4).

According to Nigeria’s Central Bank CBN (2000), poor financial investment has been the bane of Nigerian educational system to the extent to which the budgeting allocation has been

---

13 Universities belonging to the states are not bound by the agreement … if they do not implement the MOU, especially the pay increase; they may be an exodus of lecturers to other universities. Some academic programmes may not then be accredited because of a lack of adequate staff (Fatunde 2009)

14 One underlying reason for the signing by ASUU and NASUU was to prevent an outbreak of student unrest. The national Association of Nigerian students had warned the government that if no agreement were reached with the unions, street demonstration would take place during the ongoing October 2009 under-17 Junior Football World Cup being held in the country (Fatunde 2009).
very low compared to others. Furthermore, the federal government allocation to higher education has witnessed significant fluctuation since 1994.

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Figure 3.3.1 Proportion of Total Budget Allocated Education (F.O.S. Annual Abstract of Statistics 2003 Edition)

Fig. 3.3.1 shows that education allocation as a percentage of total budgets ranged from 9.88% in 1986 to 3.3% in 1999. A close look at the distribution shows that the pattern of government budgetary allocation to education as a percentage of total budget was not consistent. Instead of maintaining an increasing proportion of the yearly budget, it has been largely fluctuating since introduction of SAP in 1986. Regardless of incessant strikes and negotiation to stimulate governments to increase the proportion, the proportion has rather been below 8% apart from 1994 and 2002\(^{15}\), which were slightly above 9% (Annual Abstract of Statistic 2003).

\(^{15}\) The increase of proportion in 1994 and 2002 simply indicate the level of incoherency and inconsistency which is not in harmony with some stated elements of policy instrument. The supposed economic causality to the inconsistency is not a major objective to this study.
Figure 3.3.1b, Proportion of Total Expenditure Allocated to Higher Education Sector (Annual Abstract of Statistics 2003 Edition)

A breakdown of the higher education allocation to capital and recurrent expenditure is shown in Fig 3.3.1b. Since the oil crises in the 1980s, the proportion of capital budget allocation to higher education has been consistently lower than the proportion of recurrent expenditure. Over the years, the government capital expenditure allocation to higher education as a percentage of total capital budgets ranged from as low as 1.71 in 1999 and not up to 9% in all cases. Like total budget, the proportion was also not consistent (Ajetomobi 2005).

One of the approaches the Nigerian government adopts in financing education in Nigeria is the annual budgetary allocation to the sector that are distributed as subvention or grants to the different levels of education. The grants or subventions are made through respective coordinating agency to the Education Ministry such as the National University Commission (NUC 2000).

Despite all the reformed alternatives of funding formulas so far advocated in sub-heading 3.2.2, yet the infrastructure and facilities remain inadequate for coping with a system that is growing at a very rapid pace (Bashir 2002). Due to poor financing, the equality of education offered is affected by poor attendance and inadequate preparation by teachers at all levels (URT 1998). Furthermore, physical facilities are thought as having to be upgraded and
resources such as libraries, laboratories, modern communication and information technology equipment have to be provided to supplement any other physical funding (Nwagwu 1997).

The problem of education funding has been over the years a subject of great concern to all stakeholders in the sector. The magnitude of the problem has consistently led to strikes by, ASUU, NASU and other bodies coordinating the grievances of the workers. The cornerstone of the struggle is to make the Nigerian state to be responsible to the problems (Sule 2005). As shown in appendix II, the strikes have however caused the nation serious man-day loss. It ranged from 27072 in 1972 to about 234 million in 1994. Apart from 1995 when the loss dropped down to about 2 million, it has been more than 100 million man-days since 1996.

The problems of brain drain on Nigerian higher education institutions have several causes. Some of the causes relate to the low priority in budgetary allocation to education by the Nigerian government vis-à-vis countries like Kenya, South Africa and Zimbabwe. This is shown by the higher education expenditures of these countries in Table 3.3.1c. The percentage proportion of actual to budgeted expenditure was almost 100 percent in Zimbabwe\textsuperscript{16} in 1990 and 1993 respectively. This was followed by Kenya with 90.1% in 1990 and little over 94% in 1993 and 1995 respectively (UNESCO Statistical Yearbook 1997).

The former apartheid South Africa also increased its actual to budget expenditure from almost 90% in 1990 to 94% in 1995. Nigeria on the contrary performed not only comparatively worse than these other countries but its ratio of actual to budget expenditure on education actually declined from 85% in 1990 to about 77% in 1993 and 1995 respectively (UNESCO Statistical Yearbook, 1997).

\textsuperscript{16} The situation in Nigeria during these dates is being considered at par with the development in some of these other countries within the same period, not minding what might have developed later at those places.
Table 3.3.1c: Budgeted and Actual Expenditures on Higher Education in Selected African Countries, 1990-1995 in Million Dollars.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>12.4</td>
<td>20.0</td>
<td>29.2</td>
<td>11.2</td>
<td>18.9</td>
<td>27.5</td>
<td>90.1</td>
<td>94.9</td>
<td>94.3</td>
</tr>
<tr>
<td>Nigeria</td>
<td>2.3</td>
<td>8.0</td>
<td>12.8</td>
<td>1.9</td>
<td>6.4</td>
<td>9.8</td>
<td>85.0</td>
<td>76.6</td>
<td>76.5</td>
</tr>
<tr>
<td>South Africa</td>
<td>17.1</td>
<td>26.3</td>
<td>32.3</td>
<td>15.3</td>
<td>23.8</td>
<td>30.5</td>
<td>89.0</td>
<td>90.6</td>
<td>94.0</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>1.7</td>
<td>2.9</td>
<td>-</td>
<td>1.6</td>
<td>2.9</td>
<td>-</td>
<td>99.2</td>
<td>99.2</td>
<td>-</td>
</tr>
</tbody>
</table>

(Source: UNESCO Statistical Yearbook 1997)

3.3.2 Private University and Funding

There are two types of private universities in Nigeria:

1. Non-for-profit private institutions;

Most private non-for-profit institutions are owned, operated and supported by religious agencies. The funding is heavily relied on endowments and fees collected from students. The fees are rather low and affordable to many; some of them get subsidies from their parent organizations, and at times the staffs are drawn from the church hierarchy who may not draw salaries, while others collect lower salaried. However, others get support from other sources, such as from voluntary contributions, supplies in terms of equipments and engage in income generating activities (Varghese 2004).

2. The for-profit-private institutions;

These are private institutions established to generate profit. In general, the for-profit-private higher institutions levy high fees on the basis of full cost recovery and, if possible make profit. They offer market-friendly courses and create a surplus, offer courses such as economics, banking and finance, business administration, accounting etc. Many of them are
operating in collaboration with foreign universities and institutions located in Europe, United States of America and Australia. They recruit more of retired professors rather than young and vibrant teachers who are mindful of high-handedness, longevity of the job, retirement benefits etc (Varghese 2004). As we have opened up the historic information regarding the emergence of brain drain and its threat on the development of Nigerian Higher Education Sector, it will serve us good to understand what brain drain is, the causes, the threat and the dimensional effects including the attentions and anxieties it has drawn, therefore it is beneficiary by introducing next chapter that deals with the appraisal of brain drain.
4. Literature Review

4.1 The Phenomenon

Historically, it is believed that the spokes man for the Royal Society of London coined the expression “brain drain” to describe the outflow of scientist and technologist to Canada and the United States in the early 1950s, (Lincoln 1852).

The expression “brain-drain migration” was popularised in the 1960s with the loss of skilled labour-power from a number of poor countries, notably India. Of particular concern was the emigration of those with scarce professional skills, like doctors and engineers, who had been trained at considerable expense by means of taxpayers’ subsidies to higher education, (Cohen 2008).

Other earlier notable forms of brain drain were the shortage created in the wake of the First World War; whereby much affected nations were in dare need of human resources (Cassedy, 1997). Also worthy to mention is the wave of German scientists who moved to the United States after the Second World War, and their discoveries and inventions, came readily to mind (Augustine 2007).

International migration of highly skilled education persons, of scholars and scientists and the practitioners of the learned professions, is a very old phenomenon (Bruce 2000). Earlier research found that skilled emigration tends to lower the source country employment level and thus has negative welfare implication for the source country (Bhagwati, et al., 1974).

4.2 Defining “Brain Drain”

Despite the fact that brain drain is rather old phenomenon, yet recent globalization trends have increased the dimensions of movement of people, mostly the highly educated. In this regards, brain drain is noted as one of the major trends of globalisation, in the sense that a brain drain may occur when the (exogenously or endogenously determined) probability of immigration is large. In developing literature, the process is referred to as the flows of high skilled immigrants from developing countries to developed countries (Donald 2003).
However, brain drain by extension on a broader perspective, has been define as “an emigration of trained and talented individuals (human capital) to other nations or jurisdictions, due to lack of opportunity where they are living.” (Lincoln 2005 p.52).

Evidence so far shows that individuals with little or no education generally have limited access to international migration, and migrants tend to be much better educated than the rest of the population of their country of origin. For almost all countries, the highest migration rates are for individuals with tertiary education (Carrington et al., 1999).

### 4.3 Factors Leading to Brain Drain

The motives for migration have been numerous. Sometimes scientist and scholars are forced out of their own countries, by deportation, by the denial of opportunity for the practice of their professions or for fear of the loss of livelihood and life itself (Bruce 2000). However, a major factor that has impacted the present global trend is the declining nature of communication and transportation costs, and the opening of political borders combine to facilitate increase movements of skilled people. This dynamic is de facto leading to a global market for advanced human capital in which individuals with tertiary education are the most likely to participate (World Bank 2002).

In view of this, it is perceived that the most powerful contenders in the labour market apply the economic concept of “pull” factor (Fig. 4.1), in which the richer countries endeavour to attract and retain the finest trained-brains from all over the globe and in many ways. One of those methods is the effective policies that stimulate research and development (R&D) activities and increase direct investment (Lincoln 2005). In addition, through an internationalization factor, yet the motivation to open up institutional boarders, A) for students and staffs mobility, B) Flows of educational services, C) Increase of linkages, D) Foreign campuses as foreign investment, has to a large extent contributed to the factors of exposure to better educational conditions in advanced environments (Knight 2003).
The push factor as indicated in fig.4.1 is a direct opposite to the pull factors. While the push factors contain the conditions that tend to retard the progress of human resources to run higher education sector, the pull factors stand as catalyst for growth. The after effect resulting from brain drain or capital flight is readily felt mostly on the losing countries. The huge set back as demonstrated on fig. 4.1 is highlighted below according to Hartnett (2000):

- Reduces the already low quantity of skilled manpower available in African countries and needed for their development, mostly the higher education institutions.
- Reduces numbers of dynamic and innovative people, whether entrepreneurs or academics.
- Increases dependence on foreign technical assistance.
• Slows the transfer of technology and widens the gap between developing countries and the industrialized countries

• Negatively affects the continent's scientific output

• Money lost in income tax revenues and in potential contributions to gross domestic product

4.4 The Challenges and Policy

The problem of the phenomena has penetrated public and official consciousness in many parts of the world, yet despite the alarm about the brain drain; it is astonishing that so few government policies to stop this drain have been promulgated in the less developed countries and practically none has reached the legislative stage in the developed countries (Herbert 2008).

This is so because; the elusiveness of the problem makes it difficult for responsible men and their women counterpart to enact policies for its solution. For the reason that responsibility in such a situation demands that the policies be appropriate for the specific difficulties, especially that their consequences for world welfare and the population of certain countries should not be worst than ills they aim to cure. In this manner, Herbert (2008) means that, there are probably very few persons who would recommend that all travel, foreign student exchange, and migration could be prohibited in order to eliminate the brain drain. Such draconic measures he continues are never proposed simply because it is so obvious that the resultant losses of world welfare would outwear the gains.

In contrary to above, and according to Bang-Soon, (1992) account, the example of Korea’s Reverse Brain Drain (RBD) policy, which has been an organised government effort, rather than a spontaneous social phenomenon sets a new tone. In that various policies and the political support of President Park, Chung-Hee were instrumental in laying the ground work for its success. Particular attention is the features of Korea’s RBD policies which includes the creation of conducive domestic environment (i.e., government-sponsored strategic R&D institution-building, legal and administrative reforms).

Importantly, the empowerment of returnees (via, ie, exceptionally good material benefits and guarantees of research autonomy). It is observed that RBD in Korea will continue in the near
future given Korea’s drive for high technology, and the remarkable expansion of local industrial and the educational sectors.

Tests conducted on 367 Polish students prove that almost 80% of those considering migration would reconsider their decision if appropriate job opportunities were available locally. The pressure or conditionality for the Polish to maintain their ego in the European Union (EU) membership was to retain their doctors by improving both the financial and development perspectives in the medical profession (Krzysztof 2007).

4.5 Discourse on Reversible Option

International migration, historically a one-way process, presently seems to have found a reversible choice, particularly for those with scarce technical skills, and it is now possible to collaborate in real time, even on complex tasks, with counterparts located at great distances. As a result, scientists, engineers and academicians from developing countries are transforming developmental opportunities for previously peripheral regions as they build professional business connections to their home countries thereby forcing higher education stakeholders to boldly develop policies to directly tackle the menace of brain drain.

This has been achieved by capitalising on those tools that aided the transformation of global labour markets that resulted to brain drain. Falling cost of transportation and communication to facilitate greater mobility and as digital technologies supports the formalization and long-distance exchange of large amount of information. This section shall dwell on those reversible choices to brain drain, such as processes akin to:

- Diaspora options or Virtual participation
- Brain circulation or Brain reversal

4.5.1 The Diaspora Option

Strategies used in the past to attempt to reverse the brain drain include retention and the return of skilled migrants to their countries of origin. However, many African countries have
acknowledged that efforts either to stem the emigration of highly skilled people or to attract them back to the home country are not always effective.

The Diaspora option or ("virtual participation"), which encourages highly skilled expatriates to contribute their experience to the development of their country without necessarily physically relocating, emerged in the early 1990s as a more realistic strategy to alleviate the consequences of brain drain, mostly as it affects the higher education sector.

There are some 41 expatriate knowledge networks in the world with the explicit purpose of interconnecting the expatriates themselves and with their country of origin, 6 of which are linked to countries in Africa. Among them are the Association of Kenyans Abroad; the Moroccan Association of Researchers and Scholars Abroad; the Association of Nigerians Scholars Abroad; the South African Network of Skills Abroad; and, the Tunisian Scientific Consortium (Teferra 2000).

4.5.2 Brain Circulation

The 20th-century phenomenon of 'brain drain', of scientific and engineering talent emigrating from developing countries to North America and Europe, is likely to be complemented by 'brain circulation', in which globally mobile scientists and engineers work for shorter periods in a wider range of countries.

In brain circulation, students, academicians and scientists go abroad for training or to start their careers. They build professional networks with colleagues in multiple countries and use these networks both for professional advancement and to help build research programs and the scientific infrastructure of the home country. Some of these scientists eventually emigrate back home, while others become permanent expatriates but with permanent ties to their countries of birth (Soojung-KimPan 2007), he continues that the brain circulation phenomenon has been driven by two major trends:

- The growing appeal of developing countries as destinations for research and entrepreneurship

- The slow flattening of labour markets in science and technology
A smaller portion of the brain circulation phenomenon consists of world-class Western scientists being recruited to developing countries, or non-Westerners returning home with plans to build world-class institutions. In the former case, Singapore and South Korea have both recently aggressively recruited American and European Nobel laureates to their universities and research institutes. Many emerging countries and niche scientific players have demonstrated considerable interest in attracting Western researchers (Soojung-KimPan 2007).

Parthasarathi (2006) argues in favour of policies that allow scientific talent to circulate between developing and industrialized nations. He maintains that in the 1960s and 1970s, the flow of scientists, engineers and medical personnel from developing to industrialised nations was thought to have almost entirely negative consequences for the source countries, affecting their university staffing and availability of industrial personnel.

However, there has been growing emphasis on reverse flows of knowledge and skills, and of money the migrants send home. What was once termed “brain drain” is now seen as “brain circulation” but this has blurred important issues affecting most developing countries (Parthasarathi 2006).

Another example of brain circulation is as demonstrated by in 2000, over one-third of Silicon Valley’s high-skilled workers were foreign-born, and overwhelmingly from Asia. These U.S. educated engineers are transforming developmental opportunities for formerly peripheral regions as they build professional and business connections to their home countries. In a process more akin to “brain circulation” than “brain drain,” these engineers and entrepreneurs, aided by the lowered transaction costs associated with digitization, are transferring technical and institutional know-how between distant regional economies faster and more flexibly than most large corporations (AnnaLee 2005).

4.6 The Trend in Nigeria

From Sodeinde’s (2000) research, it is discovered that there are two levels of brain drain as concerning exodus of academicians and professionals from and within Nigerian universities; these are:
The internal and

The external.

The internal brain drain, that is, movement from state owned university to other Federal Universities and from the universities to the private sector which was caused by disparity in wages, salary and other fringe benefit as perceived by migrants.

The external brain drain as affected by the need for exposure to Western idea, availability of modern educational facilities for teaching and research, huge financial reward and conductive socio-economic and political atmosphere for intellectual to operate.

4.7 Nigeria and Brain Drain

When the flight of academicians started departing Nigerian universities early in the 1980s, it was slow, almost unnoticeable and therefore appeared not to be a cause for concern. By the mid 1980s, it had become a massive outflow of all manners of medical personnel - doctors, nurses, academicians and technologists - with early migrants recruiting for their host organizations (Mazrui 1999).

Dr. Lalla Ben Barka of the United Nations Economics Commission for Africa was quoted as saying that in 25 years, Africa may be empty of brains (Mutume 2003). The following statistics seem to justify his claims, mostly as it concerns Nigeria: According to Emeagwali (1999), when Zik\(^{17}\) set foot in America in 1924, the number of Nigerians in the U.S. was probably less than ten.

By the end of the twentieth century the number of Nigerians in the United States has risen to a quarter of a million. Hence it is widely believed that about 10,000 Nigerian academics are employed in the United States alone. In view of this (Mazrui 2000) observed that the best-educated ethnic group in the United States is according to the U.S. Census Bureau, the population of Nigerians in the America.

\(^{17}\) Nnamdi Azikiwe (Zik of Africa) was the father of Nigerian Independent and the first president of the Country from 1960 to 1966.
It is also estimated that sixty four percent of Nigerians in the United States aged 25 and older have at least a bachelor’s degree and above (Anekwe 199).

Discussing on the theme; “Brain Drain: Where the difference lies” (The Guardian June 23, 2006 p.8). While playing host to a US-based Nigerian scholar who was on a research visit to his country Nigeria, Abati (2004 p.23) submits that:

“For the past two decades, Nigerian academics in search of better conditions for contemplative inquiry have continued to flock in droves to foreign universities. The brain drain phenomenon continues to pose a threat to the Nigerian university system”

According to the estimates of the Presidential Committee on Brain Drain set up in 1988 by the then military head of State Ibririm Babangida, Nigeria, between 1986 and 1990, lost over 10,000 academics from tertiary education institutions alone (Hartnett 2000).

Recognizing the severity of the problems besetting the university system, military heads of state appointed presidential commissions in 1991 (the Grey-Longe Commission) and again in 1996 (the Etsu-Nupe Commission) to analyze the problems and recommend reforms. In both instances these 2 commissions submitted thoughtful and constructive recommendations, but the governments of the day chose not to act on them ((Hartnett 2000).

Within the onset of the brain drain in the early 1980s and 1987, the university teaching hospitals such as UCH had lost almost 40 percent of its senior doctors many departments became shadows of their past and utterly unable to carry out their statutory functions (NMA 1989).

Factors precedent on the exodus of doctors from Nigeria’s teaching hospitals include the Frequent face-offs between the doctors and the federal government over poor salary and Allowances, proscription of private practice in 1978 and again in 1984; the banning of the Nigerian Medical Association (NMA) for embarking on strike action; and the forced ejection of doctors living in government quarters (Mbanefoh 1992).

The same scenario was replicable in most other departments of the UCH and in majority of the other teaching Hospitals in Nigeria (Yaqub 2007).

More fundamental is the ripple effect of their leaving, in UCH for instance, the Department of Surgery, which had 23 lecturer/consultants in 1984, was left with only five by April 1989 and
student intake fell from 279 in 1984 to 124 in 1989. In view of this, the developed nations of the west and the oil rich Middle East countries cashed in on the prevailing severe work and socio-economic environments to lure away Nigerian health professionals with good salary and allowances, excellent professional opportunities, state of the-art-facilities, and excellent social amenities (UME 2000).

4.8 Why the Academic Brain Drain is Particularly Important

According to research conducted by Nunn (2005, p.5):

“If skilled labour in general is important, academic labour is doubly so, providing a variety of crucial functions: 1) pure research. 2) Innovation. 3) The translation of research and innovation into useful or commercially exploitable ideas, products and organisational development. 4) Building the capacity of others through teaching but also teaching and training other key professionals including teachers and healthcare workers. Thus while the loss of all skilled labour to migration is of fundamental importance to the development potential of developing countries, the loss of academic labour is even more crucial still.”

The above research statement was applied during an international conference on higher education organized by the teachers’ global trade union federation, Education International, and hosted by the Senegalese teachers’ unions, in Dakar, Senegal, in November 2003. At that conference university teachers unions from Africa, Asia and the Caribbean described the difficulties their education systems faced in respect of migration of teachers to the industrialized world. They outlined the complexities and range of phenomena which lay behind the term ‘Brain Drain.’ Also they were concerned to emphasise that the phenomenon arose from many individual, rational and justifiable decisions, but in the context of conditions and policies which in many cases exacerbated the problems faced by universities, education systems and the societies for which they were vital to economic development (Nunn 2005).
Chapter 4 ends the theoretical data to this research, and for the fact that this study is an empirical type, it is therefore imperative to evaluate, relate and present all the data so far collated in other to facilitate the results, next section continues with that aspect.
5. **The Empirical Section**

This chapter is for the description and interpretation of all the data so far collated. Those are the two phone interview: one each from the Nigerian Ministry of Education (R1) and the Nigerian University Commission (R2) respectively. Desktop documents form the second data to be analysed. The sequence of responses from the two respondents did not flow together, but I managed to follow the sequence of the interview guide with R1, which could be due to the timing of my interaction with him, he was like an emergency improvise for the Minister of Education and the Higher Education Director, he had less than 24 hours to through the interview guide as to prepare for the questions.

R2 was more of talkative, probably because he has read the interview guide five days before the interaction, in view of this he tried to deal with many issues at a time. But because it was a phone conversation I deliberately let him flow but continue to chip in questions that still bring him to my expectation.

I will relate, present and explore the core assumptions and premises of the main concepts and theories so far used in this study. These are the earlier empirical data of chapters 3 background information and chapter 4 the literature review along side with the major aspect of theoretical importance of chapter 2.

5.1 **Level of Awareness**

When R1 was asked to express his understanding of the phenomenon, he agrees that brain drain is a reality but has been over trumpeted by the Nigeria media and the Diaspora people, but R2 responded on the same question that brain drain is the movement of employable academicians to other country. That intellect is a commodity that stays where it suits most.

In the regards it seems all the data presented agree on the reality of brain drain, but not consistence on the magnitude. But why R1, a chief executive education officer who responded on behalf of the Minister of Education and the Higher Education Director will downplay the scale of brain drain occurrence was not immediately ascertained, maybe subsequent interrogation could throw more light. Meanwhile here is a time when data abound on the dimension of capital flight from OECD, the World Bank, EU, AU etc.
5.2 Assessment of the causal Effect

My respondents were asked to characterise brain drain and what they consider to be the primary cause and the effect. Both the respondents and other desktop data agree that when people are dissatisfied with work condition, mostly the intellectuals, and then they leave to other sector or another country, this consistency confirms the reality of push and pull factor as demonstrated in figure 4.1.

All the data also agree on the effect of brain drain precisely on Nigerian Higher Education Sector in the last two decades. However, responses on the extent of brain drain effect on Nigerian Higher Education Sector was not consistence among the data presented, while the empirical desktop materials put the effect on a high threat level, the two respondents did not want to go into that, while R1 referred me to the individual universities to find out, R2 simply say government is responding to it.

When I asked R1 if the ministry of education has the data of the number of teachers that have left the university, he said, “I don’t think I have ever come across such data, but each university must have the number of teachers they have lost” on the other hand, R2 claimed to be interested in what he referred as the reality at hand. The two responses are drastic contrasts to the statistic data contained in the secondary analysis.

5.3 Government Policy Input

When I demanded to know the level of Nigerian government’s attention to the problem of brain drain, R1 says government is the sole proprietor of all higher education institutions in the country and it has the moral and political will to design and enforce policies as it has been doing, he also says, in 1988 government did set up panel to look into the extent of brain drain, but he was not sure if any policy to that effect was designed, but that government has new policies with regards to teachers welfare designed in 2001, such as the one teachers are striking due to no implementation, but was .

R2 concurred to R1 submission above, but maintained that government has a policy based on administrative framework designed in 2009. Then what is a policy? Looking at Gonitzika (1999) frame work, policy is either a public statement of an objective, or an object of
legislative choice ... with a parliamentary stamp of approval. Evidence is that for the fact that teachers’ demand during the strike action was for government to honour an agreement reached with teachers in 2001.

What the two paragraphs above mean is that Nigerian government actually have had policies that was not implement, the recent called off strike by the university teachers association is one big example. Also for the fact that university teachers refers the none implementation as breach of agreement, shows that university representatives participated, and of course the beliefs and values of the institution must have been taken into consideration.

R1 and the secondary data are consistence about government failure to respond to their agreement. However, when R2 from the NUC (Government main implementation body) spoke authoritatively about government intervention policy to take the Nigerian higher education institutions to another height with a lump sum of more, I asked if that intervention is not just mare wishful thinking because they (the government) is not known for implementing agreements with the Higher Education Sector. He accused me of being biases against the government.

5.3.1 Policy Problem and Objective

Let us take for granted that other elements of policy process have been taken care of in the case of Nigerian government and higher education Institutions. Therefore I have randomly picked out few items as I deem necessary for now. It is believed that policy problems constitutes a societal problem that a policy is intended to rectify, and those conditions that have been identified by people in and around government as the main policy issues (Gornitzka 1999). In the case of Nigerian, let us assume, according to data information so far gathered in the course of this study that government have engaged several policies to deal with the Higher Education problem in Nigeria, but for about 30 years past, the same data informs as when the problems of higher education institutions in Nigeria began.

When I asked R2 if the policy he was referring to earlier is a public statement of an objective or a policy with a parliamentary approval, he said it has and administrative framework and not necessarily a parliamentary. I asked if ASUU was represented he says yes, and I said but the
problems have persisted, that I am not convinced that there is a strong instrument for consistence/coherence, he replies by saying:

“I urge you to be very positive about Nigeria it (sin) starts from you, because you are one of the stakeholders of this country, at least I like to see the objectives conditions on ground. For me the government have been bold about their intentions, we have not seen this way before, but if you act like you have doubt there is nothing you can do about it, the country belong to you and me”

I have deliberately quoted verbatim here because of the strategic important of the citation. It is said that, policy objectives depend if it is directed at changing, adjusting or maintaining behaviour of a targeted organization, phenomenon or group, in our case, it could possibly require innovation and maintenance policy since it concerns social experience (Lane 1993 cited from Gonitzka 1999). But if the problem of Nigerian has lasted this long with almost the same governmental approach, how a person can ascertain the government objective and bold intentions as mentioned by R2, where as outcomes of policies depend on their intentions; they are more likely to succeed if their intentions are focused and well defined rather than ambiguous (Olsen 1989: cited from Gonitzka 1999). Could it then be said that Nigerian government policy are challenged with ambiguity or lack intention since the problem it is intended to solve have persisted for nearly 3 decades?

5.3.2 Policy instruments

It is said that no matter the context, target, and normative assumptions of a policy, it remains a wishful thinking unless measures are applied to enforce its objectives (Hood 1993: cited in Gonitzka 1999). When I asked about the factors responsible to the Government’s delays in implementing policy agreement with the university teachers, R1 responded that government have to go according its revenue earning, if the situation at hand is not favourable, the government will delay or change their mind. If one relates the respondent’s comment to the policy procedure attached.

It call to question what the intentions of government are with all its reform programs because, reforms can only succeed if they try to change institutions in ways consistent with long term trends in society, i.e. success of comprehensive policies is dependent upon policy not going
against the “tide” (Olsen 1989 cited in Gornitzka 1999). The relationship between the Nigerian government and ASUU demands further investigation, because one wonders at what point the face up between the two shall end if we must go by R1 statement.

When I asked, what can government do to avoid the repletion of ASUU strike and to prevent the teachers from leaving the universities? R1 responded that:

“Government knows what to do, as I am speaking with you I am sure meetings and consultations are going on to resolve all these. But let me tell you Nigerian university teachers are comparing their condition of service with their counterparts abroad, but that is not fair, Nigerian government must go according to what it can do”

But R2 responded thus, they in Nigeria know that there is the problem of laboratory and teaching, problem of equipment. He says that is why they want to come up with centre of excellent and that is why they have come up with all these new policies. By these responses it means government still feel it has the prerogative to solve the problem of Nigerian universities. But the secondary data has different view which is to diversify the funding base.

When I asked, considering the present global economic downturn facing every government including Nigeria, what can you advice the government, as a way of diversifying the funding formula. R1 says, he thinks that is the thinking for now, as you can see, private higher education institutions are doing far better that the public despite the high tuition fees.

But R2 rather says they are adjusting to global reality, that at present there are developing a programme called Nigerian University annual research and development firm, and the industries are filling for slots to cooperate with the universities, for knowledge transfer, in the petrochemical, agricultural, and other biological corporations. We know that government cannot do it all.

5.3.3 Summary of Major Finding

Brain drain is a factor that threatens the development of the Higher Education Sector, even though they are little inconsistency on the level of the effect. But that brain drain is an issue to consider is a welcome necessity. Poor condition of job has been identified as constituting the main cause of capital flight, in this view push and pull factors become the main item to pay
attention at. The reason behind the government representative uninterested to talk about the direct effect on Nigerian Higher Institutions was not clear.

There is a consensus agreement that Government is the one to stop brain drain through policy formation. Although policies have been designed yet the problem has persisted. Hence a more focused government policy is to be encouraged.

Government seem to shy aware from key issues with respect to brain drain, this is due to none available of any document specifically referring to brain. Recognise that there is a problem of funding therefore government cannot do it alone. Considering a time when there is a global economic problem rocking the whole world including Nigeria, hence government policy for more robust diversifying funding formula becomes imperative.

Chapter 5 brings the discourse of this research to an end, next section, chapter 6 deals with the summery of what has been learnt: answers to the research questions, adequacy of theory/concepts used and the linkages with the literatures reviewed, including the possible unique contribution/recommendation of this work.
6. Conclusion and Recommendation

6.1 Conclusion

In this study, brain drain as a phenomenon has been identified as a challenge to the development of Nigerian Higher Education Sector. This study therefore has made attempts to ask why and how the threat of brain drain in the first place, mostly on a sector that was said to have taken off on a sound foundation. In this case, since the sector is a national institution, its problem therefore could only be resolved via government actions.

In the course of this study, we have been able to identify a set of key factors that helped to determine the degree of effect of brain drain on Nigerian Higher education Sector, and the factors that seem to constitute the cause; these are made possible through the review of existing related literatures. The factors identified therefore formed the main idea used in this study, and have aided in choosing the method to operationalise the empirical findings through interview and document analysis.

By engaging theoretical analysis from Africa, and from the world over, evidences abound that brain drain is a reality, and has become a nightmare to many national governments, Nigeria inclusive. Through the analysis of related sources, push and pull factors as demonstrated in figure 4.1 contain those major footages that enhance capital flight thereby resulting to brain drain. In order to realise the intentions of this research work, a hypothetical problem statement was developed to act as a pivot at which the wheels of this research rotates:

*How is the problem of brain drain affecting the Higher Education sector in Nigeria being addressed in governmental policy?*

As a means of operationalising the above problem, the following research questions have been put together:

1. How can the phenomena of brain drain be characterized, and what constitute its primary causes and effects?
2. In what way has brain drain affected the development of Nigeria, Higher Education Institutions in the last two to three decades?
3. What, if any, has been the policy measures so far embarked upon by the Nigerian government to turn around the menace of brain drain?
4. How can the role of Higher Education Institutions in the policy process be characterized?

5. What types of policy instruments are used in practice, and what have been their impacts?

6. What are or could be the major challenges (barriers) facing the implementation of government policies and respective instruments?

7. What, if any, have been the major achievements or outcomes from policy efforts aimed at tackling brain drain across the Higher Education Sector?

In response to the seven research questions, it is very imperative to investigate the nature of brain drain in order to facilitate a cure. From the empirical analysis, it is obvious that globalization trend has blossomed massive movement of people from one place to another and the most affected is the intellect which is seen as a commodity that goes where it fits most as mentioned earlier, the demonstration in figure 4.1 contains those factors that either attract or repel potential victims, the intellectuals. From there the after effect resulting from brain drain or capital flight is readily felt mostly on the losing countries. The huge set back is highlighted bellow:

It reduces the already low quantity of skilled manpower available in Nigeria and needed for their development, mostly the higher education institutions; reduces numbers of dynamic and innovative people, whether entrepreneurs or academics; increases dependence on foreign technical assistance, slows the transfer of technology and widens the gap between developing countries and the industrialized countries; negatively affects the country’s scientific output including the money lost in income tax revenues and in potential contributions to gross domestic product.

Evidences of the effect of brain drain on Nigerian Higher Education Institutions are enormous. When the flight of academicians started leaving Nigerian universities early in the 1980s, it was slow, almost unremarkable and therefore appeared not to be a cause for concern. By mid 1980s, it had become enormous outflow of all manners of professionals who constitute the pillars of anything to be known as Higher Education Institution.

A presidential committee was set up by the Federal Government of Nigeria in 1992, and it confirmed that between 1986 and 1990, Nigeria lost over 10,000 academics from tertiary education institutions alone, and recommended a road map to avert the advert effect of human
capital flight to the government, whether the recommendation was implemented, the government respondents cannot remember.

The total number of lecturers in the Nigerian universities was 12,977 in 1992. This total number declined to 12,064 in 1995. In other words, a total of 883 lecturers left the universities between 1992 and 1995. When the total number of academic staff of (12,395) is related to the number of students (236,261) a lecturer/student ratio of 1:19 should be considered much lower than the UNESCO norm of 1 lecturer to 10 students.

Consequently the quality of graduates become poor that their impact on the national economy in terms of productivity is generally below the required standard for a developing economy. As a result of lack of qualified academic staff the enrolment for graduate studies has also declined.

Presidential Committee Panel on Brain Drain (set up in 1988 by the Babangida’s administration) was the first step ever taken to tackle brain drain. Government Policy on Autonomy for Universities announced on July 21, 2000. This forward-looking policy framework gives university councils: full responsibility for institutional governance, including the appointment of senior officers. It also restores block grant funding to universities, circumscribes the powers of the National Universities Commission.

It vests university senates with the authority to decide on curricula, returns to universities the rights to set admissions criteria and select students and lays the groundwork for new minimum academic standards. In March 2002 a National Summit on Higher Education was held to examine specific policy issues arising from the government’s university autonomy. Topics addressed included: management, funding, access, curriculum relevance, quality and other social problems, including brain drain, and the following was noted: Ten years developmental plan was inaugurated in 2005, among targets to be tackled include; Institutional accreditation scheme, instead of “programme accreditation” as has been the case but due to financial constraint. Training of ICT personal and encourage adequate application of its ramifications in all higher education institutions in Nigeria and to tackle the menaces of brain drain.

In November 2009, government signed an agreed with the ASUU to increase the salary of senior lecturers by 57%, agree to fund and equip 6 universities at each geopolitical zone of the country, each of the university to get 5billion Naira (1.2billion usd) each for some strategic
issues.

Nigeria has always consulted higher education institutions stake holders during policy design or formation, the agreements reached with ASUU have always sparked face off if violated. It means the values and beliefs of the universities are considered. One major instrument applied by the Nigerian government is through the budgetary allocation; by this Nigerian universities have been sustained. But evidences prove the single instrument inadequate. One major challenge that faces policy implementation is funding, for more than 20 years, ASUU have often be known for embarking on strikes against the government. This is one means or tool by which the teachers or universities compel the government to respond or honour policy agreements.

It is not yet clear as to identify what could be termed as major achievement through policy to stem brain drain. The three months strike action by ASUU is a major highlight to this evidence. 1st November 2009 is just about a month past. Therefore if government has not achieved anything before the above date, then it could seem nothing has been achieved.

In the overall, when it comes to how government policy could be used with respect to the effect of brain drain in Nigerian Higher Education Institutions, data reveal that the only way to resolve the problem is by being more pragmatic on government approach to Higher education sector. But for now, it seems the sector is yet to be identified as an important factor or partner of government in the socio-economic development of the country.

As have been testified, between policy design and policy implementation is policy program and instruments; if this two areas are not taken into consideration then the policy will always run against the tide. However, if the problem is about transparency or the technicality involved in implementation process, then Cerych et al., (1986) in Gornitzka (1999 p.21) have recommended what they refers as “fixer” defined as “an actor from outside the implementing organization who is committed to policy objectives, who has the capacity to monitor implementation and the political resources to intervene” of course higher education institutional managers may fit best as “fix” option. In the other hand, if the problem is about resource inadequacy that frustrates budget implementation (as hinted in data collated) then a robust policy framework may consider diversification of funding formula as an option, find detail in the next subheading.
In the overall, this research hopes to motivate future investigation that will target critically the area of funding and implementation of policies with respect to the effect of brain drain in Nigerian Higher Education Sector.

6.2 **Recomendation:** Policy Objective on effective Decentralised Resource Dependency/Flexible Governance.

Evidently, funding inadequacy seems to have constituted main reason behind the inconsistency and incoherency that have characterised Nigeria government policies implementation, with respect to putting a stop to capital flight as it affects Nigerian Higher Education professionals. In view of this, I have therefore recommended for government level policies that targets decentralised resource dependency and flexible type of governance/management. On the side of higher education, recourse dependency could be made possible through much emphasis on Research and Development (R&D).

Going by decades of rambling between Nigerian government and the higher education sector, one is forced to ask if the government of Nigeria actually considers and understands the place of intellectuality in the making of a 21st Century knowledge society. In the course of this study, there is no one record when government did accuse the university managers for misappropriation or performing below expectation as an excuse for starving the sector. It has always been the ASUU on offensive and government on defence. Unfortunately one point dominates the entire data analysis, i.e. underfunding coming from several years of unwillingness to implement policy agreed. 30years seem to be extra much for one issue to dominate a setting without a bold step out. Therefore the choice to argue my recommendation to this study on the side of the revealed challenges should be appreciated.

First let us take a brief exploration of what 21st century higher education institution represents. It is acknowledged that among the four functions of the University is the generation of new knowledge (Castells 2001). In the other hand, higher education institution is also considered as a foremost contributor to economic generation and development (Cloete et al., 2006). Higher education is as well perceived as a major stakeholder that plays an important role in the process of innovation within the context of an increasingly knowledge-based society (Etzkowitz et al., 2000).
Examples of the United States of America and Germany, and of course, other developed countries reveal the critical role the coordination between universities, research centres, industries, foundations and government play in the institutionalisation of capacity building (Mbanefor 1994). It is on the above basis that policy linkages come to bear as proposed by Gornitzka et al., (1999). This is vital because policy linkage focuses on the issue whether policies are linked to broader tendency on policy that concerns both the public and private sectors. Accordingly it means that the degree of coherence/consistency/reliability of policies and policy linkage over time and over policy fields is relevant.

All over the worlds, HEIs that combine teaching and research activity are going through change processes, (Clark 1997), behind this trend lies, of course, the rise of the so called, “knowledge society”, technological developments, globalisation and increasing international competition (Robertson et al., 2005). All of these trends are seen by governments throughout the world as necessitating increasing investments, by all concerned, in education, training and learning through life (Tight 2003).

Not surprisingly, then, both the major funders of higher education (and particularly national governments and their agencies) are concerned to ensure that they are expending their funds and using their resources in the most effective ways, but does the Nigerian higher education institutions have any to invest? This remained to be ascertained, and how long will they continue to depend on a single channel of block funding. In the other hand, higher education is now, therefore, ‘big business’, as well as being increasingly connected to other businesses in the public and private sectors, and throughout the society as a whole (Barnett 2000) and when will the Nigerian counterpart experience this.

However, the overall goal for the connection to other sectors is for industrial pull and market push as represented in fig.6.2.2, but contrary to factors that facilitate brain lost as demonstrated in fig. 4.1. All the Nigerian Higher Education Institutions need now is government policy to redefine its position in the knowledge society. In addition,
Figure 6.2.2 Knowledge Transfer Assessment Matrix, as derived from literature review.

the overall degree of policy-coherence makes up an important intake into the way that environment of higher education institutions are being linked to other sectors of important. It is then argued that reforms can only succeed if they try to change institutions in ways consistent with long term trends in society, i.e. success of comprehensive policies are dependent upon policy not going against the tide (Olsen 1989).

Several important higher education policies have been initiated in Nigeria, according to sources. Most of it seems to respond to long-festering problems of access, quality, financing, governance and management within the nation’s Higher Education System, and seek to bring this system more in line with global good practices. However, Clark Kerr (1993 p.19) an internationally recognized higher education expert from the United States, threw down a gauntlet of challenge for higher education systems around the world. He said:

“For the first time, a really international world of learning, highly competitive, is emerging. If you want to get into that orbit, you have to do so on merit. You cannot rely on politics or anything else. You have to give a good deal of autonomy to institutions for them to be dynamic and to move fast in international competition. You have to develop entrepreneurial leadership to go along with institutional autonomy.”
This is yet to be identified in the way Nigerian higher education system is organized. Intrinsic in Kerr’s account is a call for universities to become more flexible and responsive. A similar call to action constitutes a central message in the World Bank’s new technical paper, Constructing Knowledge Societies: New Challenges for Tertiary Education (World Bank 2002). But how do we assess higher education flexibility and responsiveness?

El-Khawas (2001) offers a framework for generating answers to this question. She distinguishes between rigid institutions of higher learning and responsive institutions. A rigid institution resists making changes in institutional behaviour and often rejects possible changes without openly considering whether they are feasible or desirable. A responsive institution, on the other hand, is adaptive in its orientation. It intentionally considers changing circumstances, identifies appropriate ways to adapt, and takes responsive actions. El-Khawas goes on to hypothesize the use of four categories for assessing responsiveness: 1) Access; 2) Teaching/Learning; 3) Financing; and 3) Management/Governance. These four categories provide a heuristic tool for appraising the performance of Nigeria’s present higher education system, however, only two of the four: finance; and management/governance; fit more to my level of recommendation and by so doing dominate subsequent discussion of this sub-section because of their relevancy to the focus of my investigation.

6.2.1 Funding

A approachable form for financing higher education should address three broad areas of public interests: (i) the need to provide hope and educational opportunity to ever larger segments of a country’s population, i.e., increase access; (ii) the need to encourage (and possibility subsidize) study in certain fields important to a country’s economic development; and (iii) the need to ensure a steady flow of talent into careers that infuse dramatic shifts in supply and demand that can negatively affect the quality of life for a country’s people (El-Khawas 2001).

In Nigeria, these three needs have been only partially addressed. As have been noted, access has certainly increased both in terms of total enrolments and in terms of disadvantaged groups benefiting from admissions quotas. However, financial instruments for research, good salary, and enough financial backing for efficient up keep of higher education institution is lacking. Likewise, government funding of higher education has neither been guided by criteria linked
to strategic national priorities, nor by a concern to attract talent (teachers as well as students) into careers linked to the public good.

Historically, university funding has been distributed in broadly equitable ways across both institutions and disciplines with little concern for their performance. The result has been to create a system of excessively homogeneous institutions. This approach, although perhaps justifiable in terms of fairness looks a bit problematic to realise, judging by the present trend of events within the Nigerian Higher Education circle.

Continued expansion of the higher education system has now exceeded government’s capacity to serve as the principal financier of this growth. Under these conditions, local income generation takes on added importance, and also serves to reinforce policies promoting decentralization and institutional autonomy. Locally generated revenues have grown steadily in recent years, but may be approaching the limits of what is possible under existing circumstances, or useful in reducing competitive tensions and political appeals surrounding the allocation process which does not serve the country’s longer term development interests.

For example, just 10% of academic programs of potentially strategic development importance were accredited in 2000. Petroleum exports account for nearly one half of Nigeria’s GDP, only one out of six programs in petroleum, mining and production engineering were awarded full accreditation. Although agriculture generates 30% of GDP, just five out of 38 programs in agriculture and forestry were fully accredited. Disciplines necessary for business development and economic management fared no better. For accounting, 2 programs fully accredited out of 17 reviewed; for banking, none out of 14; for business administration, 4 out of 20; for economics, none out of 26 (NUC 2002a).

Without disciplinary capabilities approaching international standards in at least a few key professions necessary to underpin economic growth, it is difficult to see how Nigeria will be able to compete successfully in the global knowledge economy. The source of these problems can be traced largely to insufficient funding of the higher education system. In fact, funding shortfalls have been the norm for many years as enrolments have increased more quickly than the government’s capacity to maintain its proportional financial support (Banya et al., 2001). Simply put, the system has not had the financial resources necessary to maintain educational quality in the midst of significant enrolment expansion. These funding constraints have been
mainly the result of government insistence that it remains virtually the sole source of financial support for institutions of higher learning.

During the 1990s, for example, up to 93% of university funding was provided by the federal government. In current value terms, the government’s recurrent grants to Higher education would appear to have increased dramatically, from 530 million naira in 1988 to 9.6 billion naira in 1999. In real terms, however, total recurrent grants per student in 1999 were at only one-third of their 1990 level. Thus, increased budgetary allocations have been muted by the effect of rising enrolments (Hartnett 2000).

When government funding becomes insufficient to maintain institutional performance in teaching and research, universities elsewhere in the world have sought to supplement their public funding with locally generated income (fees, cost-recovery, business income, investment income, gifts, etc.). Insufficient funding has been compounded by inefficient management and an absence of strategic vision. In this regard, Burton Clark (200 p.14) has stated categorically, “Let us be clear: a high degree of financial dependence on a single mainline source is a flawed way to construct a self-reliant university.”

This is also true in Nigeria, locally generated income has contributed a relatively constant share of around 15% of higher education’ recurrent budgets in recent years, varying among institutions from a low of 4% to a high of 37% (Hartnett 2000). In spite of active verbal encouragement from government to increase local income generation, it appears that the universities’ capacity to generate revenues in this way may have been reached.

The principal untapped source of university financing remains undergraduate student tuition fees, which government prohibits. Its potential is considerable. Already, income from student fees (for non-degree, distance education, and postgraduate courses only) rose from 4% to 10% of total income between 1988 and 1998 (Hartnett 2000).

Additional gains are possible. For example, asking the wealthiest one-third of university students to pay tuition fees equal to one-half of the government’s contribution per student (i.e, about $390) would increase system-wide resources by 14%. Similarly, asking the middle one-third of income-ranked students to pay tuition equal to one-third of government’s contribution per student (i.e., about $260) through participation in a student loan program would increase university financing by an additional 10%. Assuming that government’s contribution remains undiminished, tuition fees structured in this way hold the potential of increasing the
universities’ recurrent budget by 24%. This would translate into an increase from about $900 to $1,116 in terms of recurrent expenditures per student, including for the remaining one-third of students who would pay no fees (Annual Abstract of Statistic 2003).

At this point, it seems clear to many observers that more creative and adaptable financing strategies are needed in order for Nigerian higher education to offset the likely risks of declining educational quality, resource use efficiency, and learning effectiveness that it now confronts. Institutional responses to resource constraints can range from simple belt-tightening to further income diversification, and beyond to creative entrepreneurship. What progress has Nigeria registered on this front?

To tackle the system’s funding limitations; the Nigerian government announced its decision in July 2000 that institutions were henceforth awarded administrative and financial autonomy. They were now expected to specialize in areas of comparative advantage that will be identified through participatory strategic planning processes, and government’s future budgetary allocations would consider institutional performance in this area. Government further announced an increase in university funding and urged universities to generate an additional 10% of their recurrent budget from income-producing activities. These steps are important because institutional autonomy without revenue diversification can ring hollow, and because when funding is insufficient, the need for strategically determined expenditures becomes all the more necessary. In other words, the benefits of government’s new autonomy policy will only be captured through active strategic planning by universities.

It seems the only significant financing reform yet outstanding concerns student cost-sharing. In practice, however, announced policy changes in the financial, governance and administrative autonomy of institutions will ideally create the opportunity for cost-sharing to evolve locally through a series of individual institutional decisions rather than to be introduced abruptly by national policy edict (Banya et al., 2001). This process according to Johnston (2002) is well underway in several African countries and increasingly accepted in others (Amonoo-Neizer 1998). Even in Nigeria, the topic is not lacking proponents (Babalola 1998; Bashir 2002; Okebukola 1998). Whether or not government decides to permit the evolution of these trends in Nigeria will determine how bright or dim the future of higher education is likely to be (Bashir 2002). To this end, the above may not be possible without a robust managerial capacity.
6.2.2 Governance/management.

Responsive university systems around the world have been moving towards more business-like forms of management and governance (Clark 2001). In the process, accountability, quality assurance and performance monitoring have become more important, and management innovation has become a permanent quest.

In Nigeria, capacities for managing the university system and individual institutions have struggled to keep pace with the increasingly large and complex federal university system. Professional management techniques and training generally have not been applied. Management information systems vary widely in their use and their development is limited. Strategic planning is in its infancy. Institutional communications with internal and external audiences are weakly developed. Moreover, management innovation does not seem to be a conscious pursuit.

Recognizing these shortcomings, the National Universities Commission took steps in 2001 to promote more professional institutional management by encouraging institutional strategic planning; organizing annual two-week management training workshops for senior administrators; and establishing a uniform accounting code for the university system. As yet, more efficient and responsive management has been slow to materialize.

A possible explanation for this lack of progress is suggested by Burton Clark (2001). He argues that an institution’s incapacity to respond is the outcome of limits on government funding capability combined with rigid internal organizational structures. These conditions seem to prevail in Nigeria. Funding dependence has been demonstrated above, and organizational and procedural rigidities are also apparent.

However, management rigidities are also found at the institutional level. University management is based in large part on the highly participatory system of senate and academic committees that characterized British universities at the time of Nigerian independence. Very little movement can be observed from this time-honoured practice towards the leaner, more nimble and more corporate management model that has now become the norm in the United Kingdom and elsewhere (Adeyemi 2001).
It is worth noting that similar institutional rigidities can also be found within the various staff and student organizations. Their agendas and practices are increasingly old-fashioned. ASUU, in particular, would benefit from a strategic reorientation in response to changing national circumstances. Militant uncompromising opposition has only a limited place in a democracy. The confrontational tactics that brought ASUU success during the military era have become largely unnecessary, and could usefully give way to a more service oriented role in support of union members (Adeyemi 2001).

This lack of adaptability in the light of changing circumstances may eventually lead to a loss of ASUU’s hard-won credibility with the general public, and further retard their actions, already overdue, that are required to begin forging a national innovation system and to enhance Nigeria’s productivity in an increasingly competitive global economy.

Although this may sound abstract, yet transparency is a prerequisite to growth, it must be recognized that efforts to improve university system management and governance have been confounded by a pervasive culture of corruption within Nigeria society. A long tradition of weak governance oversight and limited management accountability under a succession of military governments seems to have made corruption endemic to Nigeria at the end of the 20th century. This led the global corruption watchdog organization, Transparency International, to rank Nigeria as the world’s most corrupt nation in 2000 (Transparency International 2000).

Even though the ranking has improved, yet this social malignancy has also extended to the federal universities. Reports of falsification, plagiarism, cheating, examination malfeasance, sexual harassment, contract kickbacks, and the obligatory purchase by students of professorial lecture notes have regularly appeared in Nigerian newspapers in recent years. Prior to becoming the head of the National Universities Commission in 2001, Prof. Peter Okebukola denounced the “growing menace of student gangsterism, cult practices, examination malpractice, and other forms of violence and disruptive behaviors” within the university system (Okebukola 1998 p.310). Clearly, progress towards more responsive university governance and more innovative university management will be difficult until the political will can be found to tackle such deep-seated social dysfunction.

Increasingly large and complex institutions of higher learning demand the application of professional management techniques, strategic vision, more proactive corporate management styles that address problems through innovation, and governance structures that facilitate
institutional responsiveness to the wide range of university stakeholders. These shifts have been slow to materialize within Nigerian universities. The transition towards more flexible management and governance would be assisted by a national training capacity in university management, a budget allocation process that recognizes institutional performance and financial management that empowers strategic planning and decentralized governance and management.

At this point, the government’s policy reform package has been adequately designed but possibly not well explained to higher education stakeholders. University officers and governing councils seem to have been largely passive observers of the announced reforms instead of taking on the role of change agents. Vocal opposition has come from the Academic Staff Union of Universities (ASUU), and to a lesser extent, from the National Association of Nigerian Students.

In the same vein, the impact of the Nigerian economic reform on the industrial sector did not provide the opportunity for the industry to support the universities or collaborate with them as it is the practice in many advanced countries (African Development Bank, 1995). Therefore, Oni suggest that policy environment for the technological capacity building (TCB) in Nigeria should be multisectoral, involving the government, universities, research centres, the private sectors and other stakeholders. This is important in any policy environment that is characterised by social and ideological heterogeneity (Oni, 1991).

Therefore to tackle brain drain head long, Bossuyt (1995) suggests that capacity building that touches on much sensitivity which includes governance, quality of leadership, management philosophy, workers remuneration, resource allocation strategies is the best.

The reforms so far put in place must require in addition to urgent implementation of existing policies, also design policy with the objectives that is centred on effective resource dependency and change from inherent rigid governance/management type of higher education to more reformed flexibility, more stumbling to the realisation of urgent reformation of Nigerian Higher Education System is the constant face off between the government and ASUU, therefore an urgent call places that:

“Both ASUU and the federal government need an operational policy shift, if this 30-years old antagonistic conflict is to become less disruptive and destructive of the
“system ASUU has laboured so much to improve” (Dialy Champion, 12 March 2008, column 4).

That operational policy shift, to me will rely on designing policy of an objective towards resource diversification and flexible/transparent governance/management through the application of suitable reform theories. This may peradventure reduce total dependency thereby bring the usual antagonism between the government and ASUU to an enviable end, and of course, save the life of Nigerian Higher Education Sector.
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7.1 Interviewees

Chief Education Officer, Nigerian Ministry of Education

Deputy Director/Senior Special Assistant to the Executive Secretary of the Nigerian University Commission, (NUC)
APPENDIX I: Interview Guide

1. Informants’ Background
   1.1 Level of awareness on the issue concerned?
   1.2 Any previous personal encounter, and how?

2. Assessment of the Cause and Effect
   2.1 As a phenomenon, how can you characterize brain drain, and what do you consider to be the cause with regards to Higher Education Institutions?
   2.1 How will you assess the level of socio/economic impact of brain drain precisely on higher education sector in the last two decades?
   2.2 Considering the population of the country and the number of graduates that are supposed to be produced each year, do you think the massive departure of academicians or educated professionals, affect, or are of any worry to the nation?
   2.2 If yes, how do you quantify the rate of the drain (the data)? And if no, do the universities, including teaching hospitals have enough qualified personnel? Explain.

3. Administrative Input
   3.1 How can you assess government’s attention to the problem of brain drain?
   3.2 Do you think the government has the moral and political wheel to enforce policies aim at tackling brain drain? Explain.
   3.3 Was the policy a parliamentary decision with a legally sanctioned text attached to it, or a public statement of an objective?
   3.4 Is there any evidence to showcase the effect of government policies and programs on the issue concerning the phenomenon of brain drain?
3.5 It is evident that no matter the content, target and normative assumptions of a policy, it remains a wishful thinking unless measures are applied to enforce its objectives: can you recollect the policy instrument(s) put in place during the processes of the policy-design and formation?

3.6 How can you rate the level of linkages during policy-design and policy-formation between the government policy actors and that of Higher Education, mostly under conditions of conflicting interests during bargaining, and how do the said linkages affect the collective beliefs and values of Higher education as an organization?

3.7 Do you foresee any chances of achieving the objective of curbing mass exodus of higher education academicians (which is detrimental to realizing a globally competitive Higher Education Sector), considering the recent ASUU/Government face off? Do you have a projected date in mind?

4. Ending
4.1 Is there more information you want to add that I have not asked?
APPENDIX II: Mondays Lost Due to Strikes

![Graph showing Mondays Lost Due to Strikes](image)

Fig ii Mondays Lost Due to Strikes (Annual Abstract of Statistics 2003 Edition).

Information concerning strike actions by Nigerian Higher Education Workers Unions is accessible in chapter 3.
APPENDIX III: Nigerian Universities and Accreditation: Date: February 13, 2009


Fig iii, iv, and v are presentations of accreditation performance of the Nigerian universities system (NUC) from 2005 to 2008. Fig. iii compares percentage scores for full accreditation in Federal, State Government and private universities. Fig. iv does the same comparison with percentage scores in interim accreditation category while Fig. v is that same comparison for denied accreditation category (Peter 2009).

Fig.iii Percentage of programmes with full accreditation status for May 2005 (1), Nov, 2005 (2), Nov, 2006 (3) and Nov, 2007 (4)
**Fig. iiib:** Percentage of programmes with interim accreditation status for May 2005 (1), Nov, 2005 (2), Nov, 2006 (3) and Nov, 2007 (4)

**Fig. iiic:** Percentage of programmes with demand accreditation status for May 2005 (1), Nov, 2005 (2) Nov, 2006 (3) and Nov, 2007 (4)
APPENDIX IV: The Entire Tertiary Education in Nigeria

Nigeria's entire tertiary education system (Federal, State and Private) comprises 267 institutions: 19 federal universities, 4 federal universities of technology, 3 federal universities of agriculture, 1 national open university, 4 national centres for specialized tertiary instruction, 34 state universities, 34 private universities, 1 military university, 17 federal polytechnics, 27 state polytechnics, 7 private polytechnics, 22 federal teacher training colleges, 38 state teacher training colleges, 4 private teacher training colleges, 36 colleges of agriculture, 12 specialized training institutes, and 4 parastatal supervisory agencies (NUC 2002b)