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Understanding brain drain in Nigerian universities

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Abstracts

Global migration of both skilled and unskilled persons from developing countries to developed countries is on the increase and to understand the underlying factors behind the increase, this research examines how migration theories like pull-push factors of migration, world system theory and Maslow's hierarchy of need explain those factors that cause migration among Nigerian university workers. I reviewed the data from the research conducted by Omonijo et al (2011) titled: *'Understanding the Escalation of Brain Drain in Nigeria from Poor Leadership Point of View'*, *'An Examination of the causes of Brain drain in Nigerian universities'* conducted by Aliyu 2005, *'Effect of brain drain of librarians on service delivery in some selected Nigerian Universities'* examined by Okolo et al (2014) and a research titled *'An analysis of the cause and effect of the brain drain in Zimbabwe'* conducted by Chetsange and Muchenja (2003). Variables which drive migrants out of their home countries are push factors while pull factors are positive variables which attract and draw immigrants to receiving countries. This theory identified push variables that exist in Nigerian universities working environment as poor leadership, poor salaries and mass unemployment, etc. these factors are responsible for a mass exodus of Nigerian university's workers to developed countries. The world system theory explains that reason why workers from Nigerian universities migrate is that 'core region' (powerful and developed countries) offer better and attractive incentives that lure them (from periphery region) to migrate. Core regions have better technology, salaries, and conditions of service which attracts Nigerian university workers to migrate. In support of pull-push and World system theory, Maslow's hierarchy of need explains that Nigerian university workers migrate because they are in need, first (physiological: food, water, shelter) and second (safety: security of employment, of health, of property and of resources) stage in the hierarchy. According to Maslow, an individual will not stop needing until he gets to the apex rank in the hierarchy. Maslow explains that Nigerian university workers migrate because they cannot actualize their higher needs if they choose to remain in the Nigerian university system, hence their migration. These theories provide us with the answers that Nigerian university workers migrate because of poor salaries, poor work conditions and poor leadership.

Keywords: Brain drain, Nigerian universities, Migration.

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1 Introduction

During the last decades, many factors have contributed to increasing migration in the world and those factors are economic problems, political instability, social inequality, civil wars, conflicts, globalization, unemployment and the development of market economy. The role of mass-media like television, radio, newspapers and internet (Facebook, twitter, foursquare, LinkedIn, Yahoo group, Skype etc.) in the globalization of the world has been great. People in one part of the world are more aware of living standards, cost of living and lifestyles of people in other parts of the world. Global events get into people's consciousness through mass-media, and this has reshaped the way people view the world. In some instances, television broadcasts the stories or the wealth of returning expatriates, which could motivate more people to migrate to secure a lucrative income and safeguard their future. Increasing international migration occurs as a result of globalization. Economic globalization avails by modern media communication stimulate powerful push factors in the migrants' home countries, such as increased poverty rates and economic difficulties (Stanojoska and Petrevski 2012).

The main causes of migration are unstable political, social and economic conditions in the migrants' home countries. Other factors which can possibly cause migration are human rights violations, poverty, civil disorder, oppressive political dictator, widespread violence, unemployment, and increase in population. Push factors are caused by society's changes in the migrants' countries of origin and they are factors linked to conflicts and wars. They can include disintegration of the multicultural countries, natural disasters, economic situation, religious and ethnic conflicts and increase in population. The pull factors are opposite of push factors, they are positive factors. They are social stability, positive economic variables, common language and lack of workers, democratic system, political and religious stability (Stanojoska and Petrevski 2012). The inconvenience situations in some part of the world have resulted in a mass migration of skilled and professional labour across the globe. These factors are responsible for high cases of brain drain in the developing countries, particularly Nigeria. From this perspective, I present the aim, research questions, limitations and the organization of the paper.

1.1: Aim / Research Questions

In view of rampaging negative impact of brain drain across developing countries, this thesis explores to understand the causes of brain drain and how Pull-push factors, World system theory and Maslow's hierarchy of needs can explain brain drain in the Nigerian universities.

Research Questions

- 1) Why is there a brain drain from the Nigerian universities?
- 2) How can Pull-push factors, World system theory and Maslow's hierarchy of needs explains the causes of brain drain from Nigerian universities?

1.2: Limitation of the studies/Organization

Secondary materials from the works of Omonijo et al (2011), Aliyu (2005), Okolo et al (2014) and Chetsanga and Muchenja (2003) were used to study brain drain from the Nigerian universities. The analysis for the research was from the data extracted from the secondary

materials. This study does not use primary data to ascertain the causes of brain drain in the Nigerian Universities but relies on data provided by secondary sources. Besides, limitations in space, time, and expertise prevent the extensive exploration required to establish strong causal linkages between potential factors that affect brain drain phenomenon in Nigeria. Some factors identified in the quantitative studies were not critically analyzed, while the analysis for others was necessarily brief. This paper uses the works of Omonijo et al (2011) titled: *''Understanding the Escalation of Brain Drain in Nigeria from Poor Leadership Point of View''*, Aliyu 2005 titled *''An Examination of the causes of Brain drain in Nigerian universities''*, Okolo et al (2014) titled *''Effect of brain drain of librarians on service delivery in some selected Nigerian Universities''* and a research titled *''An analysis of the cause and effect of the brain drain in Zimbabwe''* conducted by Chetsange and Muchenja (2003). These materials though limited in quantity but they are relevant to my thesis because the data from the works will able me to use migration theories to explain why there is brain drain in Nigerian universities.

Organization

This thesis consists of seven chapters. The first chapter of this thesis consists of introduction while second chapter is made up of background, outline of research questions and elaboration of limitation of studies. The third chapter outlines the theoretical framework which will guide me in the subsequent analysis. The fourth chapter contains the review of previous research on brain drain which will serve as a reference point in my analysis. The fifth chapter presents the methodology while the sixth chapter outlines Data analysis and discussion of the study. Chapter seven presents the conclusion of the work.

2 Brief background about Nigerian brain drain

Brain drain is a common phenomenon that exists in the Nigerian universities. The cases of brain drain in the Nigerian university system date back three decades, during the era of military dictatorship and still continue till today. Indeed, Nigerians live and work in almost every country. But how many Nigerians live abroad? An effort was made by the Nigerian government to ascertain the exact number of Nigerian professionals living and working abroad in 1988. It was discovered that Nigeria lost a total number of 10,000 professionals from different higher institutions between 1986 and 1990. It was estimated that 30,000 people from both public and private organizations have migrated abroad. It was also discovered that about 64% of Nigerians living in America age 25 years and above have a minimum of bachelor degree (Mojeed-Sanni, 2012). A national census conducted by the United State in 2004 reveals that 3.24 million Nigerians live in America alone...some 202,000 are medical professionals, 174,000 are experts in information technology, and 250,000 are experts in different areas, including university teachers (Adebayo 2010: 8).

Brain drain has distorted the organizational structures of some Nigerian universities. In most cases, brain drain has placed the academic departments of the Nigerian universities in a state of chaos and no direction. Many departments of Nigerian universities have lost the middle cadre of their lecturers to brain drain, while most of the senior and junior lecturers were left behind. The senior lecturers will soon retire and the junior lecturers who received little training are saddled with a lot of departmental responsibility ranging from heavy teaching to department administration and university administration. In some cases, when the seniors leave, the departments become leaderless. In fact, many departments in the universities exist without a professor. Many Nigerian scholars who travelled for their doctorate degree abroad were employed by their host universities, and chances that they will come back to fill the vacuum left in Nigeria is very minimal (Adebayo 2010:2-4).

The Nigerian educational system had better funding from the government between the mid-sixties to the late seventies; the welfare of the university teachers was well protected. During this period, professor's salaries were high. It was only the Chief Justice of the Federation that had an annual salary of £3, 600.00 (three thousand, six hundred) British pounds per annum that earned more than a university professor.

University teachers enjoyed higher housing allowances and better social status. The overall working conditions were more attractive than those in civil service, which made teaching the envy of civil servants. The annual salary of the Nigerian university lecturers was enough to provide for their comfort (National University Commission, September 1994:3). Presently, the condition of the Nigerian educational system has deteriorated and university workers have become the least paid among all the professions in Nigeria. This was revealed in a survey carried out in 2007 by the National universities Commission (NUC). It was found that a full professor in any Nigerian university earned 12,000 dollars per annum in 2006 which was only increased to 21,000 dollars in 2009 and still stand today. A full professor from Botswana earned 27,000 dollars per annum while Namibia full professor earned about 35,000 dollars. A full professor from South Africa earned between 58,000 and 75,000 dollars. The above statistics indicates that the Nigerian university workers earn less among their contemporaries (Adebayo 2010: 2).

3 Theoretical framework

This chapter will discuss the theories that can explain the migration in relation to the brain drain phenomenon in Nigeria. The theories of interest are Push-pull migration factors, World system theory and Maslow's Hierarchy of need. These theories will provide the needed structure for this research, which will provide an important leverage for the understanding of the reasons and solution for brain drain in the Nigerian universities.

3.1: Push-pull migration theory

Variables peculiar to home countries, which include: poor employability and insecurity exist and motivate workers to migrate to foreign nations. Many studies have been carried out to discover the reason why people migrate from their home countries to other foreign nations. An English geographer named Ravenstein in 1889 developed a 'Law of Migration' and concluded that migration process was guided by the principle of 'push-pull' process where comfortable situations in an external area 'pull' people away from their current abode, while uncomfortable situations 'push' people out simultaneously. Oppressive laws, despotism, economic discrimination and heavy taxation, etc., are examples of uncomfortable situations in one place whilst other areas with advanced technology and well developed economy with a high standard of living are big allures. People opt for migration and leave their homelands because of the dynamic process involve in the migration.

Sjaastad 1962 and Todaro 1969 are some of the theorists who have improved and expanded on Ravenstein's neoclassical economic theory. They propounded that international migration is closely linked to the global supply and demand for labour. From their findings, the demand for work force globally was one of the moving forces for migration, pulling individuals away from their natural abodes by the prospects conveyed. The 'Harris-Todaro model' was originally used to discuss the rural-urban immigration, and further explains that the driving forces for migration like attraction for a better job opportunity exist at international stage too. Everett Lee (1966) farther expatiates Ravenstein's theory by his emphasis on internal factors (push factors). In supplement to the dissatisfaction of living and working conditions, variables which include: insecurity, political instability, poor medical care, religious crisis, economic marginalization are factors which drive people away from homeland. Lee retaliated that migration relates to unique features or traits of a particular individual, individuals react differently to the 'push-pull' variables before and after reaching their final destinations and can devise various strategies to cope with intervening factors. Lee disposition on migration approach has made push-pull theory more popular in the study of migration populations, explaining the reasons behind the concept of immigrations and emigrations (Wang 2010).

3.2: World systems theory

A world system can be referred to as a world economy integrated through the market rather than a political fulcrum, in which two or more regions are totally interdependent on fuel, food and protection and two or more polities struggle to overshadow one another without the emergence of one single center forever. The World system said to be a multicultural territorial division of labour in which manufacture and exchange of goods and basic raw material are very important daily life of its inhabitants. The division of labour is interrelationship that occurs in the production of the world economy and it results to the emergency of two interdependent regions, which are called ‘*core and periphery*’. These regions are both culturally and geographically different, labour intensive is the core interest of one region and the other is focusing on capital-intensive production. The nomenclature, core-periphery has a structural relationship while semi-peripheral acts as a cushion between core and periphery with concomitant of a mix of activities and institutions that exist for them. In the world-system structure, there is a power hierarchy between core and periphery in which ‘‘core region’’ which symbolizes wealthy and powerful nations overshadow and exploit the ‘‘periphery region’’ which is weak and poor nations. The central factor which directs the position of a region in the core or the periphery is technology. The subordinate status of periphery countries (less developed countries) is structurally designed to experience a kind of development that reinforces the status quo of their subordination. The powerful nations enforce and multiply the differential flow of surplus to the core region (developed countries) because the differential strength of the multiply nations that exist in the system is important to maintain the system as a whole. The dramatic transfer of surplus from semi-proletarian areas in the periphery to the high-technology and industrialized core is known as unequal exchange. The resultant effect of this unequal exchange is huge capital accumulation on a global scale and this involves the transformation of peripheral surplus.

Politically, World system opined that nation-states are variables and elements within the system. Class forces within the core nations pursue their selfish interest using the instrumentalities of the states. Domination and exploitation of the weak periphery regions by powerful core regions are called imperialism. The predominant influence of the core region over periphery regions is referred as hegemony. Hegemonic powers sustain a steady balance of power and encourage free trade as far as it is for their own advantage. Hegemony occurs as a result of temporally class struggle and

assimilation of technical advantages and its metamorphose into a global class struggle (Martínez-Vela 2001).

3.3: Brief overview of factors behind brain drain

Brain drain is closely associated with developing countries. According to UNESCO “brain drain could be defined as an abnormal form of scientific exchange between countries, characterized by a one-way flow in favour of the most highly developed countries” Brain drain can occur in two ways, first is the outright and direct outmigration and second is that graduates trained abroad refuse to come back (Kaempf and Singh 1987). Brain drain can also be described as the international transfer of knowledge and resources in the form of human capital and applies to the migration of academics, skilled professionals, technical manpower and experts from developing to developed countries. The term “brain drain” is used in a narrower way in the non-academic literature to refer to the migration of physicians, academics, scientists, engineers and skilled labour with university training. Brain drain has been a great constraint on the development of poor countries (Docquier and Rapoport 2006).

Factors behind Brain drain

There are many factors responsible for migration of skilled and educated individuals from developing countries towards industrialized and developed nations. But the main causes are as follows-

- 1) Economic Factors
- 2) Social factors
- 3) Political factors
- 4) Cultural factors

Economic factors

Economic problems which can cause migration of highly professionals from developing countries include poor salaries, lack of job opportunities, unemployment, inflation etc. A skilled worker decides to move from his home country for another in search for better economic conditions such as job satisfaction, a higher standard of living, better salary and educational progressive society, etc. It is a historical fact that countries which provide these “pull factors” have welcomed the highest population of skilled migrants and these have, in reverse, made substantial efforts and contributions, not only to the economic advancement of their host nations, but also to

the technological and scientific development of the world. Globally, the free movement and easily interaction of highly professionals and experts is a positive thing. But attendant cost to the home nations of losing their highly skilled professionals is incalculable in terms of both development opportunities and loss of investment (Oyowe, 1996)

Social factors

Brain drain can occur because of lack of respect for social rights, inaccessible social benefits and protection. These lead to social exclusion. Oppression and marginalization of some classes of people stream out from other complex reasons, as ethnic origin, gender, religious background of some people in the society. This marginalization can be through educational discrimination, denial of job opportunities and deprivation of medical and social protection. Some of the skilled professionals who are socially excluded as a result, their ethnic and religious backgrounds tend to migrate to more accommodating and inclusive societies (Stanojoska and Petrevski 2012).

Political factors

Political crisis is closely connected to an economic downfall of a nation. Economic challenges of poverty, diseases, rapid population growth and environmental degradation result in volatile cocktail of insecurity. Resulting war, riots, civil strife and other types of political turmoil can result in the displacement of a large population as migrants. Many wars have taken place across the globe in the last three decades, which resulted in heavy casualties and massive devastation. This results in unprecedented high level of migration across the world (Chimanikire 2005).

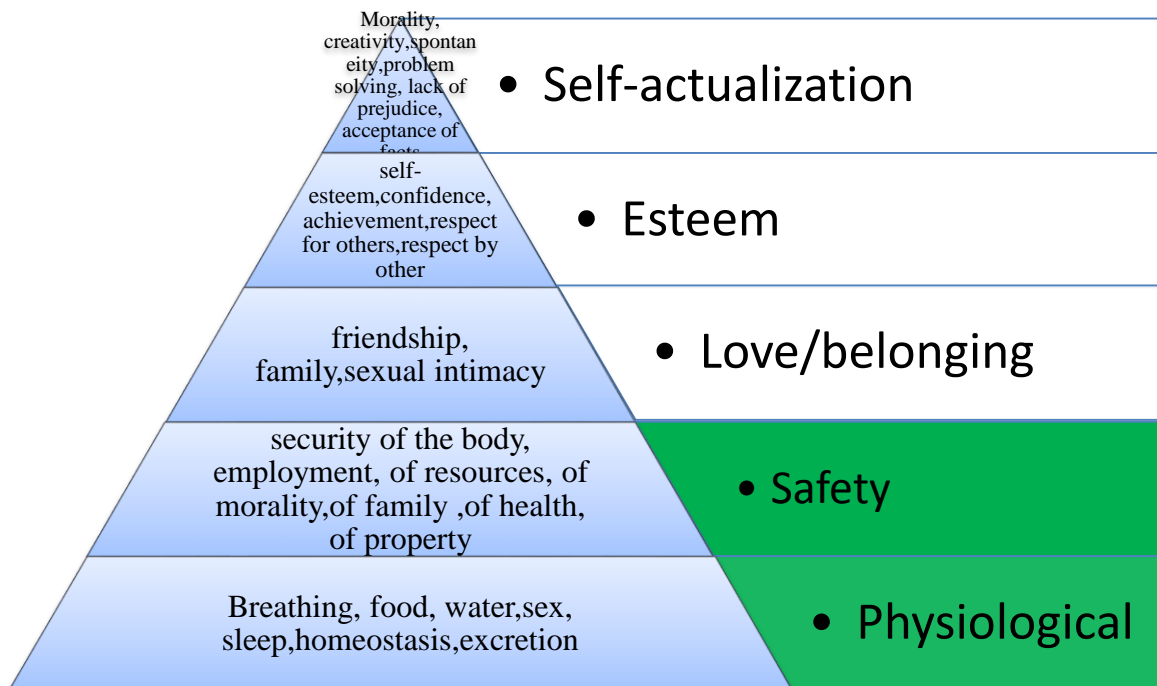
Cultural factors

Brain drain can occur as a result of some cultural factors such as gender discrimination. Many cultures discriminate against women and their rights are not respected. In some societies, single woman is worthless unless she has a husband. Men are regarded as a superior being and they have the power to dictate to women, this unequal power relation between men and women subject women to the state of inferior sex. The world of 21th century has changed male-female dichotomy. It is outdated to discriminate on the basis of gender. Some of the skilled workers who are discriminated against as a result of their gender or workers with feminist ideology have tended to migrate to gender friendly societies (Stanojoska and Petrevski 2012).

3.4. Maslow's Hierarchy of needs and Brain drain syndrome

Maslow postulated that every individual pursues the same need. When a particular need is fulfilled, an individual will move on in pursuit of the next need. The hierarchy of need is presented with a pyramid. Every individual starts at a basic need of food and water, which is the physiological layer. The second layer is safety, it encompassed of security of body, employment, morality and property. This is followed by the third layer which is the importance of friendships and family. Self-esteem is at the fourth layer which includes: self-confidence, owe respect to another and be respected by others. The peak of the hierarchy is self-actualization, which consists of creativity and spontaneity. Many individuals migrate as a result of many factors, but all factors in the hierarchy do not affect every person in the same way. The individual valuates their unique need in order to arrive at the right decision to improve their life and then move on or not (Benefader and Boer, 2006). The figure below shows Maslow's hierarchy of needs.

3.4 Figure 1, Maslow's hierarchy of needs



Source: Benefader and Boer (2006:33)

From Maslow's hierarchy of needs, the individuals migrate in order to satisfy the basic needs which Maslow termed physiological needs and it encompassed food, water and a place to sleep, secure employment, extra income. After when that was satisfied the individual will move higher in need to satisfy safety needs which is part of security and social networks. After the need for safety was accomplished, the need for love and belonging creeps in and the individual will strive to satisfy the needs for friendship, family and sexual intimacy. Need for self-esteem will come after need for love has materialized. The individual wants to be respected by others, need achievement, self-confidence and need to respect others. Finally, the individual will reach the peak of need when the need for self-actualization is attained. Here the individual has actualized all the targeted goals and will live a fulfilled and happy life.

3.4.1 Pull-push factors, Maslow's hierarchy of needs and world system theory's relationship with environment and individuals.

There are some levels of interaction which Pull-pull factors, Maslow's hierarchy of needs and world system theory avail that exist between the society and individuals in their quest to actualize their unfulfilled needs. Pull-push are factors that can either force individuals to migrate from the country of origin to other countries or pull individuals from the country of origin to other countries because of better opportunities. Push factors are the variables which are averse for personal survival of an individual. Some of these factors are economic problems (poor salaries, poverty and poor infrastructure, etc.), political turmoil and religious upheaval etc. Pull factors are opposite of push variables and tends to attract individuals to opposite direction. Pull-push factors' interactions are more personal to individuals. The variables of pull-push factors affect the individuals personally and the individuals make personal decisions either to migrate or not based on their discretion. Maslow's hierarchy of needs stands in-between Pull-push factors and world system theory. Maslow's hierarchy of needs occurs as a result of interaction between personal and societal needs. Individuals have to make a decision whether to migrate or not based on those interactions. Pyramid in Maslow's hierarchy of needs is a societal achievement "code" which begins from the very basic need of food (Physiological needs) to the self-actualization which is the apex of the hierarchy. Society regards anybody who attains the self-actualization needs as an achiever. Individuals make their own personal evaluations on how to attain the self-actualization, which is widely accepted by the society. The personal interaction between individuals and society will help the individual to determine whether to actualize his/her desire within the society and this will be the center point in his/her decision to migrate or not. World system theory is

third factors in the individual-societal interaction. Here, states use the instrumentality of states to manipulate the factors that induce migration. Factors that induce migration are in the hands of the states and individuals rely on the actions of the states to arrive at a favourable decision about their migration plans. Here, variables that causes migration cannot be determined by individuals, but by the states, so individuals are at the mercy of the state in their decision to migrate or not. The figure below shows how migration theories interact with the individuals and the environment to influence individual migration plans.

Figure2, Pull-push-Maslow's-World system theory



Source: Model developed by the author, Maslow's hierarchy of needs and world system theory's relationship with individuals and the society.

4 Literature review

As noted in the introduction, research focusing on the impact of brain drain on the developing countries has been growing for the past two decades. For example, previous studies suggest that the Chinese government has been troubled about high cases of brain drain in China. And as such, in the early 90's the Chinese government began to encourage students living overseas to come home for short visits and partake in government development initiatives (Zweig et al 2008). In view of the Chinese government programmes to minimize brain drain, Zweig et al (2008) conducted a research and titled their paper "Redefining the Brain Drain: China's 'Diaspora Option.'" The researchers used data from a survey conducted in Silicon Valley and three web-based surveys carried out in Canada, the US and Hong Kong with the mainland academics to answer these questions: What form will china's strategy and assistance take to encourage brain circulation and develop diaspora option to curtail the loss of high skilled workers from china's society? Why do people contribute to China's development, while living and working abroad? The study suggests that china's government supports its people overseas to help to participate in collaborative research, organizing seminars or mini-courses in China and lecturing. It also observed that China's government encourages mainlanders abroad to establish business in China and to also help China find export market. The study found out that reason why China in diaspora contributes to the china's development (e.g. setting up company in China) while working and living abroad is because of technology exchange that exists between people at home and those abroad. Other reasons are: they want to promote the quality of research in China and make China stronger.

Similarly, Docquier and Rapoport (2011) carried out a research on "Globalization, brain drain and development" by reviewing economic research on brain drain with interest on recent contributions and development issues. The researchers employ a stylized growth model to analyze the areas through which a brain affects the sending nations. Three case studies are used, they are: "the African medical brain drain, the recent exodus of European scientists to the United States and the role of the Indian diaspora in the development of India's IT sector" the empirical analyses of the determinant of the medical brain drain on the survey of African doctors deliver the same outcomes on the push and pull factors involved. The physicians surveyed indicate that the reason for their emigration is to gain access to better wages, working conditions and improve lifestyle. Another reason for their migration which falls under push factor was the associated risk involved in taking care of AIDS/HIV patients. Docquier and Rapoport (2011) summarized that countries with lower pay for doctors, higher HIV prevalence and higher enrollment in secondary school have higher medical brain drain rate. Docquier and Rapoport (2011) observed in their findings that the European Union has a net loss of 0.120 million of high skilled workers by the year 2000 to the USA but a net deficit of the European countries is

low because the losses to the other advanced nations are compensated for the substantial migration of highly skilled worker from developing nations. The researchers also found out that many Indian diaspora travelled to India for business purposes at least once a year and there is a regular exchange of information on job opportunities and on technology with people back home. Researchers also observed that India's economic reform, which includes a reduction in import restrictions boost growth in the software and service industry. This was mainly made available by Indians in diaspora.

Benefader and Boer (2006) further examined the new phenomenon of brain drain within developed countries. They investigate to give more insight on the reasons why migrants move within developed countries, contrary to the traditional view that connected migration of academics from developing countries towards developed countries. The migration from Germany and Netherland to Sweden was used as a case study. Benefader and Boer (2006) found out that the reasons for migration within developed countries are dissatisfaction with the society at home country, labour conditions and the natural environment.

The previous studies may have different focus, but their arguments and conclusions are most suitable for the background knowledge of the case that my study is grappling with. The previous studies will enable me to incorporate the following points below in my analysis.

- To situate Nigeria into a proper context and to identify its position in-between "core" "semi-peripheral" and peripheral regions using Europe / US, China / India as countries of comparison.
- New dimension of brain drain within developed countries. Movement of highly skilled workers from one developed country to another is a fact that will be very useful in my analysis.

5 Methodology

Research methodology can be described as the procedure for examining and the framework for investigating a defined problem in order to facilitate a factual assessment of the problem under study for the objective of drawing meaningful conclusions.

5.1 Discussion of Secondary Materials

My research materials are based on secondary materials, which means that I source my data from journal articles, dissertations or theses and books. Secondary materials includes analyses of evidence and data from primary sources. Secondary materials simplify the process of locating and evaluating the primary materials. Secondary materials repackage, rearrange, summarize, reinterpret and ultimately add value to the new information reported in the primary materials (Montereau 2005).

From this perspective, this paper draws data from the works of Omonijo et al (2011) titled: *''Understanding the Escalation of Brain Drain in Nigeria from Poor Leadership Point of View''*; *''An Examination of the causes of Brain drain in Nigerian universities''* conducted by Aliyu (2005), *''Effect of brain drain of librarians on service delivery in some selected Nigerian Universities''* examined by Okolo et al (2014) and a research titled *''An analysis of the cause and effect of the brain drain in Zimbabwe''* conducted by Chetsange and Muchenja (2003). In the research carried out by Omonijo et al (2011), they used primary and secondary means to generate their data. They made use of a questionnaire and in depth interviews as major instruments in the data collection. Students were administered with the questionnaire while the in-depth interviews were administered to academic and non-academic staff of the university. The participants were from Bells University of Technology and Crawford University Nigeria. The questionnaire aspects are grouped into five tables which have open and closed questions. Table 1 presents twelve questions where the participants were instructed to rank items provided from 1 to 12 using a one way ranking scale. Only one question was available in the table 2, which asked the participants to indicate their desire in travelling to more developed countries after their education. Table 3, are list of countries, in the open ended question, participants were asked to indicate countries which they are planning to travel to after their education. Only those who indicate interest in travelling out after their education are expected to supply information about the countries they are planning to travel to. The table 4 has 11 questions relating to the solution to brain

drain problem in Nigeria. The participants were instructed to indicate best option they know that will be useful to tackle brain drain in Nigeria.

Aliyu (2005) in his research titled ‘*An Examination of the causes of Brain drain in Nigerian universities*’ used questionnaires and the oral interviews in his data collection. The questionnaire was designed to extract information on brain drain. The questionnaires were administered through random sampling techniques.

Okolo et al (2014) examined ‘*effect of brain drain of librarians on service delivery in some selected Nigerian Universities*. In their studies, they adopted a descriptive survey design where they used questionnaire as a means of data collection. Their questionnaire is tagged ‘*Librarians’ Brain Drain and Service Delivery Questionnaire*’ they also used interviews to authenticate the veracity of the responses provided in the questionnaire.

Chetsanga and Muchenja (2003) also studied to ‘*analyze the cause and effect of the brain drain in Zimbabwe*’ questionnaires and interviews were used to gather information from the participants who are composed of Zimbabwe in diaspora.

5.3: Population and Sample Size

The population of Omonijo et al (2011) study constitutes of student body, academic and non-academic staff. The population of the students in the Bells University of Technology is two thousand three hundred (2,300) while the staff is two hundred (200). The student population of Crawford, University is one thousand two hundred and fifty (1,250) and the staff is about one hundred and fifty (150) and the sum total is three thousand nine hundred (3,900). Only six hundred and ninety-one (691) samples were drawn from the total population. The student population was six hundred and thirty-seven (637) while fifty-four (54) members of the staff were picked. Aliyu (2005) population size constitute of students and Academic staff. The population was made up of eighty (80) members of academic staff and forty (40) students. The sum total was one hundred and twenty (120) participants while Okolo et al (2014) population size constitutes of 60 university librarians in the South - south and South-west part of Nigeria. The librarians used in this study are those who have migrated from Nigerian universities to work abroad between 2006 and 2010. Chetsanga and Muchenja (2003) study made up one hundred and seventy two (172) of Zimbabwean in diaspora.

5.4: Document analysis

The author did not go into the field to collect data rather, he relies on the secondary materials. Its data drawn from Omonijo (2011), Aliyu (2005), Okolo (2011) and Chetsanga (2014). The data drawn from these secondary materials are important to my research because I embellished their data with pull-push theory, world system theory and Maslow's hierarchy of needs to explain why brain drain exists in Nigerian universities. The review of my secondary materials reveals that Omonijo et al (2011) employed the proportional sample technique in the selection of the participants in the study. This technique involves selecting the population for the study, according to its size. The number of participants selected depends on the population of the departments in Bells University. The departments were divided into six (6) namely Biological, Chemical and Physical Sciences, Centre for Foundation Education, Economics and Accounting. The Crawford University was divided into five (5) departments. In the each of the departments, sample random sampling technique was used to select the participants for the study. In the selection of interviewees among academic and non- academic staff the same simple random sampling was employed. Simple percentage and one way ranking scale were used as instrumental in data analysis. Hypothesis formulated was tested using chi-square. The total of 650 questionnaires was distributed to the respondent but only 637 questionnaires were returned back to the researcher. That stands at 98.9% response rate. Okolo et al (2014) used descriptive survey. A purposive sampling technique was used to select two geo-political zones (South-south and South-west) from the six geopolitical zones in Nigeria. South-south and South-west have 22 and 38 Universities in Nigeria making both zones area of highest place of concentration of universities among six zones in Nigeria. Chetsanga and Muchenja (2003) used postal survey method because Zimbabwean in diaspora are scattered all over the world. The questionnaires were sent respective embassies in Europe and America and the questionnaires are in turn sent to the respondents who are in their database.

In a research carried out by Omonijo et al (2011) titled: *''Understanding the Escalation of Brain Drain in Nigeria from Poor Leadership Point of View''* discovered that poor leadership leads to increase in brain drain. Aliyu (2005) found out in his research titled *''An Examination of the causes of Brain drain in Nigerian universities''* that salary structure of Nigeria university workers is generally very poor. He also discovered that the facilities and learning equipment in the Nigeria universities are either not available or ill maintained. He also reported that academic staffs are overburdened with a lot of work and they have little time for leisure. These

enumerated factors force the academic staffs of Nigerian universities out of the university system to a place where there is better condition of service. Okolo et al (2014) discovered that lack of job opportunities, lack of job satisfaction and fear of professional atrophy are reasons for the brain drain in Nigerian universities. Finally, Chetsanga and Muchenja (2003) found out that Zimbabweans migrate to work abroad as a result of work related issues such as unemployment, low salary, better job advancement and foreign exchange.

In the research carried out by Omonijo et al (2011) , Aliyu (2005) and Okolo (2014), they explained that interview was one of the methods employed to extract data from their respondents but they never mentioned the type of interview used or how they go about their interview process. Structured, semi-structured and unstructured interview are three different forms of interview, which suited a particular type of research (Mathers et al, 2002). Although they did not mention the type of interview used, but structured type of interview is best suited for Omonijo, Aliyu, and Okolo's research because their research is a quantitative research. Aliyu's population size was very narrow and centers only within Ahmadu Bello University Zaria, the population size might not be able to generate enough data that will explain the causes of brain drain in Nigerian universities. Okolo (2014) population size is equally not big enough while the Omonijo's population size is large enough for their research but their geographical spread within Nigeria is very limited. Nigeria is made up of six geographical regions (South-east, south-south, south west, north-east, north- west and north central) with 40 federal, 39 state and 50 private Universities spread across the regions (National University commission, 2014). But, Omonijo selected two private Universities from South-west zone of Nigeria, hereby making their respondents not properly spread. This might affect the outcome of their research because the data might be biased and one-sided since it did not reflect the view of other geographical zones in Nigeria.

5.4.1: Strengths and weaknesses of secondary materials

Strengths

The strengths in Omonijo et al (2011), Aliyu (2005), Okolo et al (2014) and Chetsanga (2003) research works are as follows:

- 1) The use of simple random sampling techniques
- 2) The use of appropriate statistics to test the hypothesis
- 3) Ethical Issues

Simple random sampling: This is one of the important methods used in Omonijo et al (2011), Aliyu (2005) and Okolo et al (2014) research works. Omonijo, Aliyu and

Okolo used this method to eliminate bias in the selection of the subjects for the research. This method makes it possible for every subject to have equal chances of being selected and take part in the research. Simple random method can be defined as a sampling method in which O unit items are chosen from the A distinct items in the population in such a manner that every possible combination of O distinct items have equal chances of being selected from the sample (Meng, 2013). Here, all the population was given equal chances of being able to be selected to take part in the research. Okolo et al (2014) employed purposive sampling techniques to select participants for the studies.

Chi-square: Omonijo et al (2011) use chi-square to determine whether there is a significant relationship between two categorical variables. In their hypothesis: H^1 : There is a relationship between poor leadership of the country and escalation of brain drain. Chi-square is the appropriate statistical design that can be employed to determine the level of significant association between poor leadership of the country and escalation of brain drain. The appropriate statistic was chosen because the sample method was simple random sampling and the variables are categorical variables. Chetsanga and Muchenja (2003) used Statistical package for the social sciences (SPSS) as a method of analysis because it was a survey research. It also used sophisticated inferential and multivariate statistical procedure like analysis of variance (ANOVA), factor analysis, cluster analysis and categorical analysis.

Ethical consideration: Omonijo et al (2011), Aliyu (2005), Okolo et al (2014) and Chetsanga (2003) did not directly addressed ethical concerns; but there is no observable ethical flaw in the research carried out by them. Some of the important ethical issues like privacy and confidentiality of the subjects are respected. There is no section in the research that reveals the name of the participants or personal discussion they had with the participants in the cause of the research.

Weaknesses

I did not analyze my own work with rigor due to lack of expertise even though I can identify some of the limitations of the past studies. Okolo et al (2014), Aliyu (2005), Chetsanga and Muchenja (2003) and Omonijo et al (2011) did not situate their studies in any analytical framework and their argument not nuanced. One can question the conclusions drawn from such one-sided presuppositions. Therefore, their data not their argument was useful in that the variables are relevant to address the case at hand. And as such, this study makes use of migration theories in order to explain the existence of brain drain in the Nigerian Universities. Although, I have made an effort to provide logical explanations that will enable us to understand underlying factors for brain drain in the Nigerian universities, but my own study did not carry out extensive exploration required to establish strong causal linkages between potential factors that affect brain drain phenomenon in Nigeria.

6. Data Presentation and Analysis

This section is concerned with the presentation and analysis of the data chosen. This is done with the aid of tables.

Table 1, Data from Omonijo et al (2011): Causes of Brain drain in Nigeria.

SN	Causes	Frequency	%	Rank
1	Mass unemployment	95	14.91	3
2	Mass poverty	92	14.44	4
3	Poor leadership of the country	110	17.27	1
4	Poor salaries and conditions of service	100	15.69	2
5	Crises (political, religion, communal, education)	73	11.46	5
6	Poor infrastructural facilities	27	4.24	8
7	Poor recreational facilities	15	2.35	11
8	Poor recreational facilities	12	1.88	12
9	Lack of opportunity for advancement	19	2.98	10
10	Poor education facilities	29	4.55	7
11	Poor health facilities	43	6.75	6
12	Lack of good rewarding system for hardworking manpower Untimely death of manpower assets	22	3.45	9
	Total	637	100	

Source: Omonijo et al (2011)

Table1 displays the causes of the brain drain in Nigeria. The respondents rated poor leadership of the country 1st with 17.27% as one of the main causes of brain drain. This was followed by poor salaries and conditions of service which ranked 2nd with 15.69%. Closely followed was Mass unemployment, which ranked 3rd with 14.91%. Mass poverty was placed 4th with 14.44%, while crises such as political, religious, communal and education in the country were ranked 5th with 11.46%. On the 6th position with 6.75% was lack of good rewarding system for hardworking manpower. Poor health facilities were ranked 7th with 4.55%. Poor infrastructural, untimely death of manpower assets and recreational facilities were ranked 8th, 9th and 10th with 4.24%, 2.98% and 2.35% respectively. Poor recreational facilities were ranked 11th with 2.35%. Finally, lack of opportunity for advancement was rated 12th position with 1.88% (Omonijo et al 2011).

6.1: Analysis of Push factors of the Nigerian immigrants

The causes of brain drain in Nigeria as indicated in table 1 above are all elements of push factors in the push-pull migration theory. Item 3 in the above table suggests that poor leadership is one of the major causes of brain drain in Nigeria and this corroborates Oni (2005:15) who noted that leadership challenges are prevalent in the Nigerian University communities. Many scientists and researchers have left the shores of the Nigerian university system to different parts of the world and this has posed a grave danger to the developmental survival of Nigeria because development of any nation rest on the pivot of robust research structure. The issue of poor leadership which leads to poor implementation of policies should be properly resolved by the government and university leaderships so to provide a dynamic and challenging platform for efficient learning so that the reported cases of brain drain should be curtail. It was reported that in 1992, that the total number of all Nigeria university lectures was 12,977. But in 1995 this figure sharply declined to 12,064, meaning that Nigeria has lost a total of 883 lectures between 1992 and 1995. This has a separation rate of 294 persons per annum (Okemiri 2010: 34).

Poor salaries and poor conditions of services stand next to poor leadership as causes of brain drain in Nigeria. Nigerian university lecturers are not well remunerated; this was obvious when compared to their counterparts in other parts of the world. This view was supported by Timilehin et al (2010) who noted that salaries of Nigeria University teachers are poor when compares to the salaries of their counterparts in South Africa. He also lamented that young graduate who is fortunate enough to secure employment outside the unified public service immediately after schooling earned salary twice of the annual salary of their professor per annum. Academic staff members of the university are ill motivated to perform their function due to poor salaries and other work benefits.

On the causes of brain drain, the respondents suggest that Mass unemployment in Nigeria is third causes of brain drain in Nigeria. Many factors contributed to the mass unemployment in Nigeria. These are lack of electricity, a poor road network, insecurity, etc. In the view of Ottawa et al (2012), they submitted that many companies and organizations have closed shops across the country as a result of lack of electricity and poor security network. Many companies and organizations use generators to generate electricity. This adds to increase cost of production and makes the products uncompetitive.

Many Nigeria graduates are unemployable because of the deplorable state of Nigeria universities. Most employers prefer to employ graduates with foreign certificates in place of those with local certificates because they think that Nigeria education lacks quality. In addition, the Nigeria government placed an employment embargo on certain types of professions like civil and public service. This has greater effect on unemployment rate because government is the largest employer of labor in Nigeria. This view was corroborated by Ekundayo and Adedokun (2009), who noted that

graduate unemployment is obvious in Nigeria. Ucha (2010:51) added that many Nigeria graduates wander the streets without any reasonable means of livelihood. The government has the ability to offer them employment, but they decided not to do so. He maintained that employment in Nigeria is not based on merit but depends on who you know on the position of power or how connected you are.

Mass poverty is next to mass unemployment as one of the major causes of brain drain in Nigerian as indicated by the respondents. It was supported by Ucha (2010:47) who noted that widespread and severe poverty is a reality in Nigeria. Many staff from Nigerian universities migrates overseas to escape from poverty.

Respondents indicated that political, religion, communal, education crisis ranked 5th on the causes of brain drain in Nigeria. Over the years, Nigeria has recorded a lot of crises in politics, religion, communities and education. There are many incidences of crisis in education where the Federal government of Nigeria failed to honor the agreement reached with the academic staff union of Universities which resulted in prolonged strikes. This was supported by Timilehin (2010:157) who stated that the Government's inability to respect various agreement reach with the members of the academic staff union of universities leads to incessant strike action embarked by the university teachers. Members of the staff union of universities want government to allocate more funding to the educational sector, but government renege on the agreement reach, this causes crises in the system which always result in strikes

There are religious clashes between government and Islamic fundamentalists. According to Bukar and Mwajim (2012: 249) the religious crisis between the Nigerian government and Islamic sects have claimed a lot of lives. The crises have distorted academic activities in the Universities. In 2011, the University of Maiduguri was shut down for 60 days as a result of the activities of Islamic sects. In addition, there was a case of bomb blast which happened in a church at the Bayero University Kano and this claimed lives of so many worshippers. Another bomb blast was recorded at the University of Gombe, but no life was lost. Bukar also maintained that there is a tussle over the control of Nigeria oil rich and gas reserve; this always leads to frequent clashes between Niger-delta militants and the federal Government of Nigeria. The cases of kidnapping of wealthy individuals, foreigners and big shot politician for a ransom is on the increase in the Niger-delta region. All these places where there are crisis have universities located in them. Many candidates who seek for admission shun those universities. In 2012, total of 3,000 students applied for admission to the University of Maiduguri through Unified Tertiary University Matriculation examination (UTME) as against 14,000 in 2011. These crises have

created a sense of insecurity among the interested stakeholders in educational Subsector, many candidates are beginning to seek for admission overseas. Many teachers in the universities who cannot cope with the high sense of insecurity in the Nigerian University environment have started migrating abroad where they will have better security of their lives and properties (Mwajim 2012).

Lack of good rewarding system for hardworking manpower was ranked sixth by the respondents as the one of the main causes of brain drain in Nigeria. Nigeria lacks good rewarding system for hard working teachers who are outstanding in their academic profession. In the view of Fagbemi (2012), every employee who is due for any promotion shall be promoted except those who are under disciplinary action. Compensation is an instrument for motivation of workers. It can come in the form of financial or non-financial. Compensation under non-financial category includes recognition, personal growth and higher responsibilities while financial compensation under financial category includes wages, salary and other fringe benefits. The employee can take full leave at once or sometimes on two installments. Fagbemi also maintained that employees are entitled to job-related allowances which include: shift-duty allowance, call duty allowance, over-time allowance, transport allowance, hazard allowance, etc. The Nigerian University teachers are demotivated because their promotions are irregular; there is no adequate compensation for their job. Many lecturers work without annual leave and there is no provision of their personal growth and development. Many of the outstanding ones are not recognized. These factors bring about job-dissatisfaction which forces many to migrate abroad in search of better opportunities (Fagbemi 2012).

Respondents rated poor health facilities in the country as 7th causes of brain drain in Nigeria. Health facilities in Nigeria are in deplorable form. This was corroborated by Agunwamba et al (2010), who noted that Nigerians life expectancy is very low. According to Agunwamba, Nigeria ranks 167th out of 176th countries in life expectancy index of the World health organization. About one in six Nigerians die before they reach the age of 50 years. Nigeria had lost an enormous human potential. Sickness and ill health results to poor work output in schools and workplaces. With Nigerian health system been rated one of the worst in the world, it has little chance of confronting the present educational challenges in the university system. Many university lecturers have left Nigeria to take up teaching jobs abroad where there is a good health system. Besides, safety and the desire to reach the peak of their career pushes some to migrate.

Table 2, Data from Omonijo et al (2011): Students' interest in travelling to developed countries after their study.

s/n	Institutions under study	Students response			Total
		Yes	No	I don't know	
1	Bells University of Technology	268(42.07%)	46(7.23%)	36 (5.65%)	350(54.95%)
2	Crawford University	213(33.44%)	30(4.70%)	44(6.91%)	287(45.05%)
	Total	481(75.51%)	76(11.93%)	80(12.56%)	637(100%)

Source Omonijo et al (2011)

It was indicated in table 2 above that approximately 76% of the respondents indicated their interest to travel to more advanced countries after their school in Nigeria. Out of the entire sample, participants from Bells University of technology represent 42.07%, while Crawford University represents 33.44%. The participants who indicated their dislike for travelling out are 11.93%. Bello University of Technology represents 7.23%, while 4.70% are in the Crawford University. Students who have not made up their minds to travel out or not are 12.56%. Crawford University represents 6.91%, while 5.65% is from Bells University of Technology. On the reactions of the staff members, thirty-five (64.81%) did not frown at students wish to travel abroad after their studies while nineteen (35.19%) frowned at the student desire to travel out after their studies because they believed that they are the future of tomorrow (Omonijo et al 2011).

6.2: Categories of the Nigerian immigrants/Destination countries

The opinion of the Students corroborates the assertion of Mojeed- Sanni (2012) who noted that as of 2004 up to 3.24 million Nigerians have travelled to the USA. The breakdown shows that various professionals from the Nigerian Universities are the majority, example, the number of information technology professionals is 174,000, medical and allied professionals 202,000, engineers 50,000 and professionals in other areas including the University lecturers 250,000. However, only 20% of Nigerians educated abroad returned home while about 80% stayed on in the country of study. This opinion was in agreement with the view of Olufemi (2010:8) who noted that the estimate of 300,000 professionals live and work abroad; over 30,000 of them are estimated to have doctorate degrees.

Table 3, Data from Omonijo et al (2011): Country of choice of students who wish to travel after their school

s/n	Country	Frequency	%
1	United State of America	103	21.44
2	United Kingdom	94	19.54
3	Canada	72	14.96
4	Italy	58	12.05
5	Belgium	45	9.36
6	France	37	7.69
7	Germany	24	4.98
8	Japan	15	3.11
9	Turkey	13	2.70
10	Australia	11	2.29
11	Netherland	09	1.88
	Total	481	100

Source: Omonijo et al (2011)

Table 3 above shows that many of Nigerian students prefer travelling abroad after their school. The table above indicates that 18.2% of the students prefer travelling to North America, 13.7% of students want to travel to member states of the European Union, 3.1% students refer going to Asia and 2.29% of students want to travel to Australia after their studies (Omonijo et al 2011).

Table 4, Data from Omonijo et al (2011): Solutions to the problem of brain drain in Nigeria

s/n	Solutions	Frequency	%
1	Good leadership of the country	109	17.11
2	Mass employment opportunities	85	13.34
3	Political stability (sound democratization process)	74	11.61
4	Good salary and conditions of service for workers	100	15.69
5	Good rewarding system for hard working staff	92	14.44
6	Solid infrastructural facilities	46	7.22
7	Solid health facilities,	37	5.80
8	Solid recreational facilities	25	3.92
9		19	2.98
10		22	3.45

11	Reduction of high level of poverty in the country Eradication of unnecessary crises in the country Eradication of high level of poverty salvaging the country	28	4.39
		637	100

Source: Omonijo et al (2011)

From table 4 above, although the causes of brain drain are directly related to the solution of it; nevertheless, the respondents were asked to suggest the appropriate solution to drain in Nigerian universities. Respondents suggested that good leadership is the best solution to the problem of brain drain in Nigeria with 17.11%. This is closely followed by good salary and conditions of service for staff with 15.69%. Good rewarding system for diligent workers is third in hierarchy with 14.44%. Mass employment for the populace is next with 13.34%. Next in the hierarchy was political stability with 11.61%. Solid infrastructural facilities, health facilities and eradication of mass poverty in the country constitute 7.22%, 5.80% and 4.39% respectively. Lastly, participants who suggested eradication of unnecessary crises and solid recreational facilities in the country as the solution to brain drain represent 3.92% and 3.45% respectively. Members of the staff interviewed also of the view that good leadership is the major solution to the issue of brain drain. They believe that once the good leadership is in place other factors that leading to brain drain will be drastically reduced (Omonijo et al 2011).

Table 5, Data from Aliyu (2005): What is the most pressing problem facing University Education

Responses	Number of Respondents	Percentage %
Inadequate funding	24	25
Poor Equipment and facilities	12	15
Inadequate staff	17	22
All of above	8	38
Total	65	100%

Source: Aliyu (2005)

Table 5 above indicates that 25% of respondents say that the most pressing problem facing University Education is lack of adequate funding. 15% of the respondents indicated that poor equipment and facilities are the most pressing needs of University

education because it will be difficult for effective learning to take place without good equipment and facilities. 22% of the respondents are of opinion that inadequate staff is the most pressing problem of University education because without skill workers learning will not take place. Finally, 38% of the respondents indicated that the most pressing problems facing university education in Nigeria are the mixture of the aforementioned factors (Aliyu 2005).

6.3: Causes of brain drain in the Nigerian Universities

Table 5 above highlighted, push factors which exist in Nigeria universities. In the table, the opinion that poor equipment and facilities are the most pressing problems of the university education in Nigeria was in agreement of view of Olukoya (2006) who noted that infrastructures and social amenities in the Nigerian Universities are very poor. He also stated that facilities in Nigerian Universities are in poor form, with overcrowded classrooms. Many students are sitting on the floor to receive lectures. The equipment for teaching and learning are very inadequate and the available ones are in a very bad shape to enable Universities to continue to carry out their academic responsibilities effectively. Additionally, NUC (2004) confirmed the report of visitation panel set by the federal Government of Nigeria in 1999 and 2003 to investigate into the activities of Nigerian Universities to identify their problems. It was observed that infrastructures in the Universities are deplorable condition. Infrastructural decay in Nigerian Universities has resulted in the brain drain whereby the best and brightest lecturers are moving out from the Universities to take up more lucrative positions abroad. Sokunbi (2006) cited in Ohiwerei (2009) corroborated this by saying that, Nigerian University students' lack good training because of poor teaching facilities and this had rendered them functionally unemployable as many organizations and institutions prefer to employ people from abroad.

The opinion that inadequate funding was the most pressing problem facing university was corroborated by Osawe (2006) cited in Nwaopara et al (2008: 32) who attributed the falling standard of education in Nigeria is as a result of inadequate funding that started during the military era. There are no adequate provisions of resources from the government. The existing and old facilities were not taken care of. Lectures are grossly underpaid and overworked. The lecturers have unpaid gratuities and pensions running into billions of Nigeria Naira. The laboratories are antiquated; the libraries have become obsolete and students lack hostel accommodation and a venue for sporting activities. Misappropriation of little funds meant for Educational development in Nigerian Universities by University leaders contributed in declining of academic standards. Bollag (2002: 40-42) added that Money provided by the World Bank to Nigerian Universities for educational development in the country in the 1990s was used and utilized in the buying unnecessary equipment that cannot be

put into use because of lack of qualified personnel that can install those facilities. The funds would have helped to solve educational problems in the Nigerian universities, had they been well managed.

Table 6, Data from Aliyu (2005): What is your suggestion to the Government to curtail the problem of Brain drain in the University?

Response	Number of Respondents	Percentage %
Better funding of Universities	6	20
Provision of Research facilities	8	27
Improved reward system	6	20
All of above	10	33
Total	30	100%

Source: Aliyu (2005)

The table 6 above shows that 20% of the respondents agreed that better funding of the Universities is the best way to address the problem of Brain drain in Nigeria. Learning can make more effective when there is appropriate funding. 27% of respondents indicated that improvement in the provision of research facilities will be better option to solve the problem of brain drain in Nigeria. 20% of the respondents concurred that the improved reward system will be a better motivating factor to minimize the problem of brain drain in Nigeria. Finally, 33% of the respondents suggested that a mixture of the factors will be a better option as all of them depend on another. They should all exist together to be able to solve the problem of brain drain in Nigeria (Aliyu, 2005). Okolo et al (2014) found out several reasons why university librarians in Nigeria Universities migrate to live and work abroad. In their studies, it was revealed that 85% of librarians migrate because of low prospect for further training, 81.7% reported that lack of job opportunities was the reason for the migration, 80% was found out to have migrated because of job dissatisfaction and finally, 56.7% migrated as a result of fear of professional atrophy. The result of Okolo et al (2014) is in agreement with the findings of both Omonijo (2011) and Aliyu (2005) that push factors in Nigerian universities are responsible for high increase rate of brain drain in Nigerian universities.

6. 4: Discussion

Push-pull factors of migration explain that the reasons why workers from the Nigerian university prefer to migrate and work in more developed countries rather than staying and work in Nigerian university system are due to poor leadership, poor salaries and conditions of service, unemployment, mass poverty, political and religious crises, lack of good rewarding system for hardworking manpower, poor health facilities and poor infrastructural facilities etc. These aforementioned factors are within the purview of pull-push migration theory. It was observed from the data analysed that worker from Nigerian universities are being forced to work and live abroad as result of some many inconvenience situations they have at home. Push factors are driving forces that motivate Nigerian university workers to migrate to more developed and advanced countries such as, North America, European Union, Japan and Australia. These developed countries have what is known as pull factors and they include high wage and better salaries, better work condition, low unemployment level, political freedom, and good facilities, etc. Nigerian university workers are attracted to more developed countries because of availability of pull factors. The working landscape of Nigeria university workers is dotted with so many obstacles which constitute push factors; these are the reason why they prefer migrating to work abroad. The result is an upsurge in the cases of brain drain from Nigerian universities.

In addition to pull-push migration factors on why there is brain drain in Nigerian universities Maslow's hierarchy of need also laid some analytics corroboration. Maslow's hierarchy of need is represented in a pyramid and it postulated that everybody purses the same need and when a particular need is actualized, the individual moves on to fulfil the next need. According to Maslow, human needs in hierarchy start from the basic layer which is physiological layer, then move to safety, love/belonging, self-esteem, and to the peak of the layer called self-actualization. It was discovered from the research that Nigerian university workers are still within physiological and safety need in the hierarchy. Their physiological needs are good salaries and high wages, good life, good rewarding system for hardworking manpower, etc. while their safety need are good leadership, employment, political freedom, good health facilities and good infrastructural facilities, etc. The needs of Nigerian universities, workers are still within second layer of Maslow's hierarchy of need (Figure 1, section 3.4 shows green colour in Maslow's hierarchy of needs and it represents the stage of needs of Nigerian workers). Maslow postulated that individual will always purse his needs until he get to the apex of hierarchy which is self-

actualization. The most basic needs of human need which are physiological and safety needs have not been fulfilled by the Nigerian universities workers; this prompted and energizes them to strive to fulfil them. The end result was their mass migration to developed countries where they believe that their dreams of actualizing their needs will be materialized. Brain drain in Nigerian university is on the increase because many workers are migrating to more developed countries in order to fulfil their needs in hierarchy. There is a new brain drain phenomenon which, occurs within developed countries. According to Benefader and Boer, Migration of workers within developed nations is growing in recent decades and this is in contrast to the traditional view that academics from developing countries like Nigeria move to developed countries of Europe and America for better financial opportunities. Migrants within developed countries migrate because of possibility of less stressful job conditions in the host nations and dissatisfaction with the society at the home country. These reasons belong to the apex layer in Maslow's hierarchy which is self-actualization. These reasons are contrary to why migrants from developing countries like Nigeria migrate, whose reasons are expectation of higher salaries in host nations, high unemployment and insecurity in their country of origin. These reasons are the first two layers in the Maslow's hierarchy of needs which is physiological and safety needs

The world is now becoming a unified global village. There is inter-dependent of labour among the different countries in the world. In the world system, there are core regions (developed countries) and they exploit the peripheral regions (developing countries) using high superior technology as an advantage. The World system theory of migration posited that the world has become a global village with capitalism as a preferred economic system with core regions dominating and dictating the tune of the market. The larger proportion of the world population has been incorporated into the world market economy. The workforce from different countries can move freely in search of better opportunities elsewhere. Many workers in the Nigerian universities are not comfortable as a result of poor leadership, poor salaries, poverty, and unemployment, etc. they are forced to migrate freely to other developed countries (core regions), because they offer better working conditions

Nigeria is in a severe stage of brain drain typical of other developing nations like Zimbabwe. Technology and other developmental initiatives are lacking in Nigeria. This scenario placed Nigeria in periphery region where skilled workers migrate to developed nations (North America and west Europe) otherwise known as "core regions" where there are high developed technology, and other pull factors that

attract skilled workers. In-between the ‘‘core region’’ and ‘‘periphery’’ is ‘‘semi-periphery’’. According to Zweig et al (2008) and Docquier and Rapoport (2011) the semi-periphery regions are countries like China and India. These countries have mapped out some developmental initiatives that attract skilled workers who have migrated out of their countries to start coming and invest at home. China and India have an improved technology and relatively developed infrastructure, this effort encourages many Chinese and Indian’s diasporas to return home to contribute in the development of their home countries. Below represents the position of Nigeria.

Core region (e.g. America, Europe) -----***Semi-periphery*** (e.g. China, India) -----***Periphery region*** (e.g. Nigeria, Zimbabwe)

In the research titled ‘‘*an analysis of the cause and effect of the brain drain in Zimbabwe*’’ carried out by Chetsanga and Muchenja (2003), about 54.5% of Zimbabweans in diaspora reported that their reasons for their migration was work related, 24% mentioned education as a reason for migration, 10.4% reported marriage/relationship factor as a reason for migration, while 7.8% reported political issue as a factor for their migration and finally 2.6% said that they migrated because of wander lust. In the proportion of those who reported work related issues as a reason for moving, 34.5% of the respondents reported low salary as the reason for moving followed by exchange rate, which was 32.5% while 29% reported opportunity for career advancement overseas as a reason for migrating.

The same factor causing brain drain in Zimbabwe resonates in Nigeria. The reasons discovered as the causes of brain drain in Zimbabwe like low salary, opportunity for advancement of career, exchange rate, political issue can be encapsulated as push factors. This is similar to the findings of Omonijo (2011), Aliyu (2005) and Okolo (2014) that push factors are the reasons why there are brain drain in Nigerian Universities.

7 Conclusion

The objective of this studies is to study the causes of brain drain and how Pull-push factors, World system theory and Maslow's hierarchy of needs can explain brain drain in the Nigerian universities. Pull-push factors are variables that cause migration of people from one place to another, usually from inconvenient societies to comfortable places. Push factors are poor leadership, poor salaries, mass unemployment, mass poverty, etc.; they are the factors that are responsible for brain drain from Nigerian universities. Pull factors are variables which attract people. They are good leadership, good salaries, employment opportunities, etc. Pull-push factors affect the individuals personally and individuals make migration plans based on prevailing personal conditions. Pull-push factors relate to Maslow's hierarchy of needs, but the only difference is that push variables in Maslow's hierarchy of needs interact with society and individuals and individual migration plans were based on that interaction. Maslow's hierarchy of needs explains that Nigerian university's workers migrate abroad because they are stagnated in the physiological (need for food, shelter, water, etc.) and safety needs (security of health, property, family, body etc.) in the pyramid. They cannot move further in the hierarchy to actualize the need for self-actualization, which is the society code for "an achiever". This necessitated their migration. In the world system theory, the states are the actors that determine migration pattern. Stronger and powerful countries exploit and manipulate the poor and weak countries by promulgating policies that skew development away from poor countries. This results in migration of skilled workers from poor and developing countries to strong and developed countries. In view of the circumstances that have caused brain drain in Nigerian universities as was observed in this study, the following recommendations are given:

Government should minimize brain drain in Nigerian universities by positively manipulate push factors by making adequate funds available. This also includes provision of appropriate democratic structure that will encourage the emergence of leaders with good managerial skills in the universities. Salaries and wages of workers should be increased to motivate and to maintain optimal performance. Unemployment should be reduced by the provision of more job opportunities. Push factors are related to Physiological and safety needs in Maslow's hierarchy of needs but the government needs to manipulate some factors in the society to enable Nigerian workers to attain self-actualization in the pyramid. Government should sponsor and provide a platform for social interactions like "end of the year parties"

after work party and other social gathering. It will help the Nigerian workers to have atmosphere for social interaction which will help them to attain need for belonging (friendship) and need for esteem (confidence, self-esteem) in the hierarchy before finally get to the apex of the pyramid which is self-actualization.

Migration variables in world system theory are influenced by states. Developed countries exploit and promulgate obnoxious policies that skew development away from developing countries in order to attract their skilled workers. The Nigerian government should engage in international diplomacy and high power lobbying to discourage the powerful and developed countries from implementing policies and programme that will militate against Nigeria development. The Nigerian government should attract and partner developed countries in developmental venture in Nigeria. Joint partnership in developmental projects will accelerate development, which will assist in creating jobs. This has the potentiality of providing basic infrastructure that will render workers' migration unattractive. The Nigerian government should emulate Indian's and China's example by the way of support and encouragement to its people abroad to take part in collaborative research and set up business at home as this will encourage them to start thinking about home and migrate back.

Push factors of migration are very strong variables with a very strong appeal, government should provide the needed support highlighted above to dissuade Nigerian workers from migrating abroad and this will help in putting to an end the increase cases of brain drain from the Nigerian universities.

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