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Transforming Brain Drain to Brain Gain in Nigeria

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Introduction

Brain drain is a slang term that indicates a substantial emigration or migration of individuals, Julie Young (2023). The term “brain drain” was first coined by the Royal Society in 1963 to describe the migration of scientists and technologists from less-developed countries to more developed ones, particularly from Commonwealth countries to the United Kingdom, Bhagwati (1976). Since then, it has become widely used to denote the broader phenomenon of skilled migration and its implications for countries of origin. Brain drain, also known as human capital flight, refers to the emigration of skilled



and talented individuals from their home country to other nations in search of better opportunities and prospects abroad, resulting in a loss of valuable human capital and intellectual resources for the country of origin, Lowell, B. L., Allan, F. and Emma, S. (2004). This phenomenon is characterised by the departure of professionals possessing specialized knowledge, expertise, and qualifications critical for national development and progress. This phenomenon has far-reaching implications for both the countries of origin and the receiving nations.

A brain drain can result from turmoil within a nation, the existence of favourable professional opportunities in other countries, or a desire to seek a higher standard of living. Economic disparities, lack of job opportunities, political instability, inadequate infrastructure, and limited access to quality education and healthcare are some of the primary reasons why skilled individuals choose to migrate to more developed countries. The promise of higher salaries, better working conditions, and opportunities for career advancement lures many talented professionals away from their home countries. In addition to occurring geographically, brain drain may also occur at the organisational or industrial level when workers perceive better pay, benefits, or upward mobility within another country or industry, Julie Young (2023).

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, characterised by a one-way flow in favor 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 labor with university training. Brain drain has been a great constraint on the development of poor countries, Docquier and Rapoport (2012).

Factors Behind Brain Drain

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

1. 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).

2. 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).

3. 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 results in a 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).

4. Cultural factors

Brain drain can occur as result of some cultural factors such as gender discrimination. Many cultures discriminate against women and their rights are not respected. In some societies, a 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 21st 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, Stanojkovska and Petrevski (2012).

Brain Drain in Nigeria

Brief Background of Nigerian Brain Drain

Brain drain is a common phenomenon that exists in Nigeria and her universities. The cases of brain drain in Nigeria 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. However, 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).

Brain drain has distorted the organizational structures of some Nigerian institutions (academic institutions inclusive). Taking the academic institution as an example, brain drain has placed the academic departments of the Nigerian institutions in a state of chaos and no direction. Many departments of Nigerian institutions have lost many of their lecturers to brain drain, leaving only few 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 institution's administration. In some cases, when the seniors leave, the departments become leaderless. Many Nigerian scholars who traveled 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).

The Nigerian educational system had better funding from the government between the mid-sixties to the late seventies; the welfare of the lecturers 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).

In Nigeria today, the economic condition of most Nigerians has deteriorated. Many establishments, both private and government owned, are paying what's not worth it to their workers. Even academics 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 workers earn less among their contemporaries, Adebayo (2010:2).

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 involved 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 workforce 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 exists at the international stage too. Everett Lee (1966) further 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 marginalisation are factors which drive people away from their 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’s 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).

In Nigeria today, brain drain has been a significant challenge with skilled professionals such as doctors, engineers, scientists, educators, researchers, and entrepreneurs leaving the country in search of better opportunities abroad. This trend has been influenced

by a combination of push and pulls factors. Push factors include economic challenges, political instability, inadequate infrastructure, limited career advancement opportunities, and social unrest, while pull factors encompass higher salaries, better job prospects, access to advanced technology and research facilities, and improved quality of life in destination countries.

Scholars such as Prof. Adebayo Olukoshi (2004) and Dr. Pat Utomi (2010) have conducted extensive research on the impact of brain drain on Nigeria's development trajectory. Their works highlight the adverse effects of skilled migration on human capital development, innovation ecosystems, and economic growth. They emphasise the need for proactive measures to mitigate brain drain and harness the potential of skilled professionals for national development.

Causes of Brain Drain

1. Brain-drain on students

Students studying abroad may experience the dilemma of deciding whether to return to their home country after completing their education or to remain abroad for better opportunities. They can relate to the aspirations, challenges, and decisions involved in the brain drain and brain gain dynamics. Here are some causes of brain-drain on students.

- a. Limited opportunities for higher education: Inadequate access to quality higher education institutions and programmes in their home country can drive students to seek education abroad. The perception of better academic opportunities, facilities, and resources in foreign universities motivates many students to pursue their studies overseas.
- b. Desire for better career prospects: Students often perceive better career prospects, including job opportunities, professional growth, and higher salaries, in countries with stronger economies and more developed industries. The allure of a promising career path abroad encourages students to consider emigrating after completing their education.

- c. Political and social instability. Political instability, social unrest, and insecurity in their home country can create uncertainty and discourage students from envisioning a stable future there. Concerns about safety, freedom, and the overall quality of life may push students to seek opportunities in more stable and peaceful countries.
- d. Lack of research and innovation opportunities. Limited research and innovation infrastructure, funding, and support in their home country can hinder students' academic and professional development. The availability of advanced laboratories, research centers, and collaborative networks abroad may attract students who seek to pursue cutting-edge research and innovation.
- e. Migration policies and immigration opportunities: Favorable migration policies, including work permits, residency pathways, and opportunities for post-graduate employment, in destination countries influence students' decisions to emigrate after completing their studies. The possibility of obtaining permanent residency or citizenship in a foreign country may incentivize students to explore long-term prospects abroad.

2. Brain-drain on professionals in the diaspora

Nigerian professionals living and working abroad, commonly referred to as the diaspora, are directly affected by brain drain and may also be potential contributors to brain gain initiatives. They can relate to the experiences of leaving their home country, as well as the desire to contribute to its development. Here are some causes of brain-drain on career professionals.

- a. Limited career opportunities in home country: Professionals in the diaspora may perceive limited career opportunities, lack of job vacancies, and limited upward mobility in their home country. The prospect of better career prospects, higher salaries, and opportunities for professional advancement abroad motivates many to remain in their host countries.

- b. Desire for stability and security: Political instability, economic uncertainty, and social unrest in their home country can create concerns about safety, stability, and the overall quality of life. Professionals in the diaspora may prioritise stability, security, and a conducive environment for themselves and their families, leading them to stay in their host countries.
- c. Quality of life considerations. Professionals in the diaspora often seek a better quality of life, including access to healthcare, education, infrastructure, and amenities, which may be lacking in their home country. The perceived higher standard of living, better social services, and overall well-being in their host countries influence their decision to remain abroad.
- d. Professional recognition and opportunities for growth: Professionals in the diaspora may find greater recognition for their qualifications, skills, and expertise in their host countries compared to their home country. The availability of diverse career opportunities, professional development programmes, and avenues for skill enhancement and career advancement abroad attracts them to stay and pursue their professional goals.
- e. Family and social networks: Established family ties, social networks, and community connections in their host countries contribute to the sense of belonging and integration among professionals in the diaspora. The support systems, cultural diversity, and opportunities for personal and professional growth within their social circles encourage them to remain connected to their adopted communities.

3. Brain-drain among non-students

Brain drain traditionally associated with students seeking higher education abroad, also affects non-students, including professionals and skilled workers. The causes of brain drain among non-students

are diverse and include economic factors such as limited career opportunities and inadequate compensation, as well as political and social factors like instability and lack of recognition. Understanding these causes is crucial for addressing the broader implications of brain drain on both individuals and their home countries. Here are some causes of brain-drain on non-students.

- a. **Limited career opportunities:** Non-students may experience limited career opportunities in their home country due to factors such as high unemployment rates, lack of job vacancies, and limited upward mobility. The perception of better job prospects, higher salaries, and career advancement opportunities abroad motivates many professionals to seek employment overseas.
- b. **Political and economic instability:** Political instability, economic uncertainty, and lack of governance transparency in their home country can create an environment of instability and unpredictability. Concerns about economic recession, currency devaluation, inflation, and government policies may drive professionals to seek more stable and prosperous countries.
- c. **Inadequate compensation and benefits:** Non-competitive salaries, insufficient benefits, and poor working conditions in their home country compared to international standards can contribute to dissatisfaction among professionals. The desire for better remuneration, job security, and work-life balance may prompt individuals to explore opportunities in countries with higher compensation packages and better employee benefits.
- d. **Limited access to advanced resources and infrastructure:** Non-students may face challenges accessing advanced resources, infrastructure, and technology in their home country, particularly in sectors such as healthcare, research, and innovation. The availability of state-of-the-art facilities, equipment, and research opportunities abroad may attract professionals who seek to enhance their skills and expertise

in their respective fields.

- e. Professional development and recognition: Non-recognition of qualifications, lack of professional development opportunities, and limited avenues for career growth in their home country can hinder professionals' advancement and fulfillment. The prospect of gaining international exposure, networking with global experts, and receiving recognition for their achievements may prompt individuals to pursue career opportunities abroad.

Effects of Brain Drain in Nigeria

1. Loss of skilled labour and expertise: Brain drain results in the emigration of skilled professionals, leading to a shortage of critical talent in key sectors such as healthcare, education, technology, and finance. This loss of skilled labour and expertise hinders the country's ability to innovate, compete globally, and address socio-economic challenges effectively. For example, the departure of medical doctors from Nigeria to countries like the United Kingdom and the United States has contributed to a significant shortage of healthcare professionals, exacerbating the healthcare system's challenges, Mullan (2005).
2. Negative impact on economic development: Brain drain undermines Nigeria's economic development by depriving the country of human capital and intellectual resources needed for sustainable growth. The loss of skilled professionals leads to decreased productivity, reduced innovation, and hindered progress in key sectors, ultimately impeding economic diversification and prosperity. For example, the departure of engineers, scientists, and entrepreneurs deprives Nigeria of the expertise needed to drive technological innovation and industrial development, slowing down the country's economic advancement, Beine *et al.* (2001).
3. Strain on public services and infrastructure: Brain drain places additional strain on public services and infrastructure in Nigeria, as the departure of skilled professionals exacerbates

existing challenges in areas such as healthcare, education, and public administration. The increased workload on remaining professionals and inadequate resources further deteriorate service delivery. For example, the shortage of teachers resulting from brain drain has led to overcrowded classrooms and decreased educational quality in Nigerian schools, impacting students' learning outcomes and educational attainment.

4. **Loss of intellectual property and innovation:** Brain drain diminishes Nigeria's capacity for innovation and knowledge creation by causing the outflow of intellectual property, research, and technological expertise. The departure of researchers, scientists, and innovators deprives the country of valuable ideas, inventions, and discoveries that could drive technological advancement and economic growth. For example, Nigerian researchers and academics who migrate abroad may contribute their expertise to scientific breakthroughs and technological advancements in other countries, rather than benefiting Nigeria's research and innovation ecosystem.
5. **Decreased global competitiveness:** Brain drain reduces Nigeria's global competitiveness by weakening its human capital base, innovation capacity, and ability to attract investment and talent. The perception of brain drain negatively impacts the country's image and potential for attracting skilled professionals, foreign direct investment, and international partnerships. For example, Nigeria's ranking in global competitiveness indices may decline due to brain drain, affecting its attractiveness to investors and hindering its ability to compete with other countries in the global market, World Economic Forum (2020).

Effects of Brain Drain in the Diaspora

1. **Loss of cultural and social connections:** Brain drain can result in a loss of cultural and social connections for individuals in the diaspora, as they may become disconnected from their homeland's traditions, values, and community networks. The distance from their native country may lead to feelings of

alienation and identity crisis. For example, Nigerian professionals living abroad may struggle to maintain ties with their cultural heritage and community due to the physical distance and cultural differences, leading to a sense of disconnection and loss of identity, Adepoju (2003).

2. Emotional and psychological impact: Brain drain can have significant emotional and psychological effects on individuals in the diaspora, including feelings of homesickness, loneliness, and isolation. The challenges of adjusting to a new culture, language, and social environment can take a toll on mental well-being. For example, Nigerian professionals living abroad may experience psychological stress and emotional strain as they navigate the complexities of adapting to a new country, balancing work and family life, and coping with feelings of displacement, Ding, L., Li, X, Feng, Y., *et al.* (2020).
3. Challenges in integration and assimilation: Brain drain may present challenges for individuals in the diaspora in terms of integration and assimilation into their host country's society and workforce. Cultural differences, language barriers, and discrimination can hinder their ability to fully participate and succeed in their new environment. For example, Nigerian professionals living abroad may face obstacles in integrating into the local community and workforce due to differences in cultural norms, communication styles, and professional practices, affecting their social and economic integration.
4. Impact on family dynamics: Brain drain can disrupt family dynamics and relationships for individuals in the diaspora, as they may be separated from their families and loved ones in their home country. The distance and time apart can strain familial bonds and lead to feelings of guilt, loneliness, and disconnection. For example, Nigerian professionals living abroad may experience challenges in maintaining close relationships with their family members, especially if they are unable to visit or communicate regularly due to logistical or financial constraints, Adepoju (2010).

5. Diaspora engagement and transnational identity. Brain drain can influence diaspora engagement and the development of transnational identities among individuals living abroad. Despite being physically distant from their home country, members of the diaspora may remain actively engaged in their homeland's affairs, contribute to development initiatives, and maintain strong ties with their communities. For example, Nigerian professionals living abroad may participate in diaspora organizations, cultural events, philanthropic activities, and knowledge exchange programs to maintain connections with Nigeria and contribute to its development, Nyamnjoh (2012).

These effects demonstrate the complex interplay between brain drain and the experiences of individuals in the diaspora, highlighting the emotional, social, and cultural dimensions of migration. Efforts to address brain drain should consider the diverse needs and challenges faced by members of the diaspora and seek to foster meaningful engagement and integration.

Mitigating Measures for Addressing Brain Drain and Promoting Brain Gain in Nigeria

In recent years, there have been promising initiatives and efforts aimed at reversing brain drain and promoting brain gain in Nigeria. For example, the Nigerian government's establishment of programs such as the National Diaspora Policy in 2017 and the National Volunteer Service Scheme (NVSS) demonstrates a commitment to engaging the diaspora and creating avenues for skilled professionals to contribute to national development.

However, today in Nigeria, brain-drain has become a prevailing issue which is very common, most especially among the youths of the country. There has been a common *slang* termed "JAPA". This Nigerian *slang* has gained widespread usage among Nigerian youths and in popular culture. The term is used to describe the act of escaping, fleeing, or disappearing quickly from a situation, often in a hasty and urgent manner. However, here are some mitigating measures to curb brain-drain in Nigeria.

1. Policy frameworks and government initiatives

Development and implementation of policy frameworks and government initiatives to incentivise the retention of skilled professionals and attract diaspora talent back to Nigeria. For example, the Nigerian government could establish a National Brain Gain Strategy, providing tax incentives, research grants, and support for returnees' reintegration into the workforce, Olukoshi (2004).

2. Strengthening education and research infrastructure

There should be increment in investment and improvement of education and research infrastructure to provide quality educational opportunities and foster a conducive environment for research and innovation. This may involve upgrading universities, laboratories, and libraries, as well as providing scholarships and research grants to support academic excellence, Okojie (2009).

3. Treating opportunities for returnees and diaspora engagement

Create opportunities for returnees and engage the diaspora in educational initiatives and research collaborations. For instance, the government could establish mentorship programs, academic exchange programs, and research partnerships with diaspora scholars and institutions to facilitate knowledge transfer and capacity building, Utomi (2010).

4. Promoting entrepreneurship and innovation

There should be promotion of entrepreneurship and innovation by supporting the development of startup ecosystems and technology hubs. This could involve providing funding, incubation support, and access to networks for aspiring entrepreneurs and researchers. Collaboration with international partners and organisations can further enhance opportunities for innovation and commercialisation, Soludo (2018).

5. Collaboration with international partners and organizations

There should be strong bond of collaboration with international partners and organizations to leverage expertise and resources in educational and research initiatives. For example, Nigeria could collaborate with universities, research institutions, and funding agencies abroad to establish joint research projects, exchange programs, and technology transfer agreements, Olukoshi (2004).

Conclusion

The objective of this study is to examine how brain drain can be transformed into brain gain for Nigeria. 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 Nigeria. 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 individual's migration plans were based on that interaction. Maslow's hierarchy of needs explains that Nigerian Nigerians 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 actualise the need for self-actualisation, 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 Nigeria as observed in this study, the following recommendations are given:

1. Government should minimise brain drain in Nigeria by positively manipulating the push factors; making the economy and human capital viable. This also includes provision of appropriate democratic structure that will encourage the emergence of leaders with good managerial skills in all sectors of the country.
2. Salaries and wages of workers should be increased to motivate and to maintain optimal performance. Pay them a living wage.
3. Unemployment should be reduced by providing more job opportunities. The government needs to manipulate some immigration factors in the society to enable Nigerian workers to attain self-actualisation 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 getting to the apex of the pyramid which is self-actualisation.
4. 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.
5. 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.

6. 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.

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