Cape Peninsula
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# THE SOCIO ECONOMIC IMPACT OF SOUTH AFRICA'S BRAIN DRAIN: AN ASSESSMENT OF EXISTING SKILLS AMONGST AFRICAN FOREIGN NATIONALS AND THEIR CONTRIBUTION TOWARDS THE ALLEVIATION OF SKILLS SHORTAGES AND JOB CREATION IN THE WESTERN CAPE

By

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# DECLARATION

I, **Joao Mateus Domingos** declare that the contents of this thesis represent my own unaided work and that the thesis has not previously been submitted for academic examination towards any recognised qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

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# ABSTRACT

The purpose ofthis research project was to conduct a skills audit amongst the immigrant communities (refugees and asylum seekers), in South Africa and in Cape Town in particular, to assess whether refugees, asylum seekers and immigrants of African origin have the necessary skills to fill the gaps left by South Africa's brain drain.

The study explored the impact of the skills shortage on the economic development, unemployment and poverty of the country. The study also explored measures taken by the government and other stakeholders to address the skills shortages. In order to achieve the study's objectives the researcher used a quantitative research method as an instrument of data collection with an interpretational method of data analysis. The research was in 2 parts, a literature review and 200 immigrants completed questionnaires.

The finding here is intended to directly address some of the research questions posed and investigated by this study, as well as to provide background information and clarity on the research question.

The finding highlight that African immigrants in Cape Town are most likely to be male between the ages of 19 and 45. Most African foreigners in the Western Cape are single males although some public officials believed that they came as families. As supported by Statistics released by the Cape Town Refugee Forum in 1999 estimate that of the 11 900 refugees in Cape Town, 10 000 are male, 1 000 women and 900 children (Cape Argus, 1999). This is supported by Rogerson (1997), writing in the Migration Policy Series about Johannesburg's foreign entrepreneurs, who established that new immigrant businesses are run by single, young, males who work on average a 64-hour week; their employees work similar hours.

- Most immigrants have some kind of work experience or skill acquired via life experience, practical training or university. The literature found support this. The findings by McDonald et al., (1999) and Peberdy (2000) hold that migrants are motivated to come to South Africa largely, but not entirely, by economic opportunities and that they are motivated, educated, skilled and enterprising and that they find work easily but are poorly paid, are corroborated by this study.

- It was found in this study that there is no truth regarding the negative perception that immigrants are taking jobs and the study reveals that most of them are self-employed small entrepreneurs who create jobs and by so doing contribute to poverty alleviation. This is in line with a previous study conducted by Tengeh(2015:261), who found that most immigrants own small businesses and that most of them employ South Africans in those small businesses.

These findings help to understand and clear up the misconception that immigrants are not job creators. This study only investigated African immigrants without expanding to Europeans and Asians, who are also immigrants. It is interesting to note that Basotho, Tswana and to certain extent, Namibians, do not see themselves as foreigners in South Africa. In line with the research questions about how to address the problem of the skills shortage the study recognised the existence of various and important initiatives locally and internationally that failed due to a lack of supervision during the implementation phase, reduced political will at certain stages, lack of enthusiasm and of policy coordination across the relevant sectors due to fragmentation among government departments, which makes developmental policies difficult at one level, career development policies need to be part of a coherent coordination of relevant policies relating to education and training, skills development, the labour market and social equity and development. Further this various initiatives served as a framework to develop a model that it is hoped will respond to the issue at hand.

This research disclosed that numerous governments in Africa and private sector concerns are all interested in finding a solution to the scarce skills shortage, at least in principle and in terms of policies. On paper there are numerous initiatives to deal with the skills shortage and training people with scarce skills. As an example, the AU launched the Western Hemisphere African Diaspora Network in 2002 prior to the 2003 summit of heads of states, to investigate a role for the Diaspora (Easterly and Nyarko, 2005:17). In summary the study have achieved its objective as it was set in the begin of the study.


Keywords: skills shortage, brain drain, immigrant communities, brain gain, brain circulation, scarce skills, migration

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In the name of Allah most high, the merciful and the most gracious, to you all praise and honour must be rendered.

 I wish to thank:

# DEDICATION

This dissertation is dedicated to: My late father, Antonio Francisco Domingos, who did not live to see my achievement. May your soul rest in peace. To my wife for being patient while I travelled back and forth, thank you for the significant spiritual support. May Allah reward you.

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| | |
|---|---|
| SDA | Skills Development Act |
| SDLA | Skills Development Levies Act |
| SADTU | South African Democratic Teachers Union |
| SANC | South Africa Nurse Council |
| SERA | Survey of Employers who have Recently Advertised |
| SETA | Sector Education and Training Authorities |
| SPSS | Statistical Package for Social Sciences |
| STATS | Statistics South Africa |
| WHO | World Health Organization |
| ASGISA | Accelerated and Shared Growth Initiative for South Africa |
| ASTD | American Society for Training and Development |
| CEE | Commission for Employment Equity |
| CDE | Centre for Development and Enterprise |
| COAG | Council of Australian Government |
| DIMA | Department of Immigration and Multicultural Affairs |
| DoE | Department of Education |
| DoL | Department of Labour |
| DPRU | Development Policy Research Unit |
| ETDP | Education Training and Development Practices |
| EU | European Union |
| FASSET | SETA for Finance, Accounting, Management, Consulting and other Financial Services |
| FET | Further Education and Training |
| GDP | Gross Domestic Product |
| GEAR | Growth Employment and Redistribution |
| HRD | Human Resource Development |
| HSRC | Human Science Research Council |
| IMF | International Monetary Fund |
| JIPSA | Joint Initiative on Priority Skills Acquisition |
| LMIU | Labour Market Information Unit |
| MQA | Mining Qualification Authority |
| MODL | Migrant Occupations in Demand List |

| | |
|---|---|
| NRF | National Research Foundation |
| NSDS | National Skills Development Strategy |
| NSF | Nationals Skills Fund |
| NRSET | National Resources Sector Employment Taskforce |
| NZDoL | New Zealand Department of Labour |
| NZIER | New Zealand Institute of Economic Research |
| PERSAL | Personal and Salary Information System |
| RDP | Reconstruction Development Programme |
| SRI | Solidarity Research Institute |
| TOKTEN | Transfer of Knowledge and Technology to Assam Programme; |
| PROCITEXT | Programa para la Vinculacion con Cientificos y Tecnicos Argentinos en el Exterior Program for the Linkage of Argentine Scientists and Technologists Abroad. |
| CESASC | Chinese American Engineers and Scientists Association of Southern California |
| SIPA | Student/Scholarly Network Silicon Valley Indian Professionals Association |
| INRIST | Interface for Non Resident Indian Scientists and Technologists ProgrammeType of Network |
| IRSA | Irish Research Scientists' Association |
| JANET | Japanese Associate Network |
| AKA | Association of Kenyans Abroad |
| ALAS | Asociation lattino-americaine de Scientifiques |
| A.N.A | Association of Nigerians Abroad |
| BGN | Brain Gain Network Intellectual/Scientific Diaspora Network FORS Forum for Science and Reform |
| SANSA | South African Network of Skills Abroad |
| ATPIJ | the Association of Thai Professionals in Japan |
| RBD | the Reverse Brain drain Project |
| ATPAC | Thai Professionals in America and Canada |
| ATPER | the Association of Thai Professionals in Europe |
| TSC | the Tunisian Scientific Consortium |
| TALVEN | Talento Venezolano en el Extrior (Program of Venezuelan Talents Abroad) |

TOKTEN   Transfer of Knowledge through Expatriate Nationals

EEAs    Ethiopian Expatriate Affairs'

HRD    Human Resource Development Strategy

# CHAPTER ONE

# BACKGROUND OF THE RESEARCH

## 1.1    INTRODUCTION

Since the creation of the universe, people have immigrated and emigrated from one place to another in search of better living conditions and security. The slavery of Africans performed an important role in the continent's brain drain, as Africa's best men and women were forcefully taken and sold into slavery in America and Europe's sugar cane plantations, dispossessing Africa of its human capital.

At present it is evident that Africans from both first and third world countries are not exempt from this brain drain, which affects Africa positively and negatively in areas of sport, politics, education and others. The term brain drain is not a new phenomenon and worldwideit has been of great concern for developing countries over the past few decades (Sultana, 2014:2).If it is seen as an opportunity and not a problem, then this phenomenon can be turned from brain drain into brain gain.

It is important to distinguish between brain drain, skills shortage, muscle drain, skills reverse, reverse migration, skills circulation and skills waste and brain gain. The focus of this thesis is on brain drain, as it is the core concept that manifests in a shortage of skilled personnel. Various parties are involved in this process, the first of which are the skilled individuals; the second, the state that acknowledges acquisition of its own citizens that are poached and the third is the destination countries where talented Africans choose to apply their skills (Sultana, 2014:2).

From this perspective, 'brain drain' refers to the waste of precious talents. For it to be referred to as 'drain' in the first place, means that it is something that has value and suggests that there is a losing party in this scenario, and this is the source country of emigrated skilled persons, while the 'brain gain' concept refers to host countries where skilled Africans choose to settle. Since the creation of the universe people have emigrated in search of better living conditions.

Edokat (2000:57) holds that the migration of talented people is as old as humankind. This kind of movement is usually justified by economic, social and political

exigencies.According to Sultana (2014:2), this phenomenon is changing migration patterns, economic growth, knowledge and information flow, as more and more individuals are relocating to developed and emerging nations, rather than remaining in developing countries. The migration patterns and theories that once existed are no longer applicable, as the world focuses on attracting and leveraging brain gain capabilities in developing and emerging countries(Kelo and Watcher, 2004:5; Edokat, 2000:57).

Those different parties attach fears and hopes directly or indirectly to their symbiotic relationships. Wars and humanitarian crises account for most involuntary migration. The pursuance of economic advantage is a reality that fuels emigration. Conditions serve as pull and push factors (Tannock, 2007:5).

The current, global brain drain debate lends itself to binary terms. The north loses and south gains or vice versa. The binary focus raises the question of the brain drain impact, particularly on the sending countries. Literature from the 1960s assumes a negative impact on developing countries' social and economic well-being as a result of the exodus of their most educated citizens, in contrast to recent literature that focuses on turning brain drain into brain gain via the remittance, knowledge and transfer of technology (Tannock, 2007:5).

The two main schools of thought on skills in South Africa articulate differing views. On the one hand are those who argue that the South African economy is not facing a skills shortage, but is rather hobbled by underutilization of available black skills. Conversely, there is a strong case that the domestic economy faces an acute skills shortage, especially if the recent economic growth is taken into consideration (Mabotja, 2008).

Redelinghuys (2004:1) holds that placing the issue of brain drain in a broader context in the world and within an African perspective, seeks to highlight refugees, immigrants and asylum seekers, while it may serve as a possible alternative source for the country's skills shortage problem, whilst also contributing to the country's economy. According to Robinson (2003:1), brain drain is a term that gained currency during the 1990s in reference to German, Canadian and British scientists' migration to the United States during the 1950s and early 1960s. The term "brain drain" became popularized

owing to concerns of British Royals who noted a number of highly skilled professionals migrating to developed countries.

By the mid-1970s brain drain equated to the movement of highly skilled individuals to North America and Europe. Sultana (2014:2) holds that this brain drain resulted in a decline in economic growth, development, human capital and financial loss in some developing countries.Baily (2003:235) holds that South Africa has been experiencing a brain drain since 1994 and this trend looks set to continue.

For a better understanding of brain drain and brain gain as a topic, Lien and Wang (2003:8) define brain drain as the flow of highly skilled immigrants from any developing countries to developed countries. Erbogan (2003:1) has a slightly different definition and posits that brain drain is a concept that refers to the emigration of educated and talented individuals. It has become an interesting topic for economists and educational scientists. According to Thomas (1973:16), not all types of movement by qualified and/or unqualified individuals would constitute brain drain.

Sultana (2014:6) defines brain drain as "the global transfer of human resources, which mainly applies to the migration of relatively highly educated individuals from developing to developed countries". The International Organization of Migration (IOM) (2013:209) defines 'brain drain' as the "emigration of trained and talented persons from the country of origin to another country, resulting in a depletion of skills in the former".

This author, then, disagrees with Sultana (2014:6), who posits that brain drain only occurs when human capital is transferred internationally amongst persons who are relatively highly educated.

For this study, brain drain is the result of the outward and inward flows of talent or skilled and unskilled (non-graduated) individuals from one country, region, continent, place, province, municipality and/or city to another, which is either developed or underdeveloped, owing to various factors.  These can range from either forcefully or willingly moving in search of better and safer living and/or working conditions that are perceived to exist in the host destination and it can be temporary or permanent. This brain drain causes skills shortages, hence it is necessary to arrive at an agreed upon definition in South Africa for better understanding of the subject matter.

Firms and countries can no longer ignore the costs associated with losing a highly skilled and educated workforce, as the world seems to grow ever smaller and the movement of individuals increasingly easy. It is critical to understand the value of human capital, as 'brain drain' or 'human capital flight' is the consequence, which may limit the growth, development and wealth of countries and individuals in developing countries (Sultana, 2014:6).

According to the Centre for Development and Enterprise (CDE) (2007:7), skills shortage refers to an absolute or relative demand, current or in future, for skilled, qualified and experienced people to fill particular roles/professions, occupations or specializations in the labour market. Scarce skills are usually measured in terms of occupation or qualification (CDE, 2007:13-14).

Instead of a much broader and inclusive definition, the researcher posits that a consequence of skills shortages is that hundreds of thousands of vacancies for skilled jobs remain unfilled every year and service delivery in hindered due to a lack of qualified artisans to do the jobs. This view is supported by research conducted by the Solidarity Research Institute (SRI, 2008:4) and Villiers (2007:69), who hold that South Africa is experiencing staff shortages in both the education and health sectors, but this view is refuted by other authors.

Pressly (2007:2) claims that more than 40,000 jobs in the public sector remain vacant either as a result of brain drain, or because of a lack of experienced personnel to fill the positions. However, Jimmy Manyi, then chairperson of the Commission for Employment Equity (CEE), contested this by labelling South Africa's skills shortage as an urban legend (Brier & Erasmus, 2009:9).Based on this debate one can pose two propositions namely (1) the graduates do not possess the critical skills that are sought after; and or (2) only few of the graduates possess the relevant skills needed. It is imperative to highlight then that. Several sources confirm that skills shortage is not a figment of anti-transformation, but is rather something that has held government's developmental initiatives back.

Although the data seems contradictory, the reality is that there is some kind of shortage, whether relative or absolute, factual or fictional, and this has been proved by the government's personnel salary information system (PERSAL), which revealed

that 5 103 public sector vacancies for medical practitioners were available in 2006 alone. This figure was confirmed by Breier (2008:30),who quoted the Department of Labour's (DoL) Labour Market Information Unit (LMIU), which outlined that between 2004 and 2007 a great number of  vacancies that the Sunday Times' Career supplement  advertised, were unfilled.

According to Breier and Erasmus (2009:116), half of the vacancies were for health professionals. The analysis below indicates that from April 2004 to March 2007:

- a total of 112 828 vacant positions were advertised;
- a substantive number of job advertisements placed were in search of professionals (50,37 percent) and managers (30,52 percent);
- health professionals accounted for 30, 76 percent of all professional vacancies making a total of 17 479 vacancies over the three years under review;
- the midwifery and nursing professional's category over the three-year period made up the largest share of job vacancy adverts in the health professionals (43,59 percent), followed by medical practitioners (35,87 percent) and health diagnostic and promotion professionals (16,04 percent). The remainder of the advertised vacancies were for health therapy professionals that accounted for 4, 50 percent (Breier, 2008:31).

This problem of skills shortage is not confined to the health sector; as the education arena faces similar problems. The Democratic Alliance (DA) (2008) holds that then Minister of Education, Naledi Pandor, insisted that there was no crisis or shortage of teachers even though the report that was released by the Education, Training and Development Practices (ETDP) SETA, claimed that the Western Cape alone had to find more than 2 500 mathematic teachers, 2 500 natural science teachers, and 1 500 language teachers by 2010.The same applies to other provinces (Democratic Alliance, 2008).

According to Silva (2008) of the West Cape News, the Minister of Basic Education, Angie Motshekga, stated that more than 1700 South African teachers are unqualified to teach at secondary schools.In the same vein, Todisco (2004:4) indicated that several highly skilled professionals were leaving the country to work and live in wealthier, developed countries. This is a key constraint for the South African economy.

The Centre for Development and Enterprise CDE (2010:9) and Rasool and Botha, (2011:1)hold that all stakeholders, along with government, are in agreement that the widespread shortage of skilled people is one of the most important structural constraints for economic growth and unemployment in the country.The government recognizes that South Africa's skills crisis is wide and deep. The Centre for Development and Enterprise (CDE, 2007:44; Co & Mitchell, 2005:3) holds that government recognizes that the country does not only face skills shortages in terms of lacking people to fill jobs, but it also lacks entrepreneurs to create jobs and to improve the delivery of quality education and other services that could equip people with skills that would sustain the economy (CDE, 2007:4).

Skills shortage in the public sector manifests in various ways. It has hindered the government's ability to fight crime, as well as its ability to provide services, ranging from healthcare and emergency fire services to education and electricity, resulting in angry township residents who live in unsanitary conditions. Municipalities seem to lack the capacity to supply or contract municipal engineers and other employers have become frustrated because they cannot find suitable candidates to fill vacant positions, as young graduates have found that their qualifications are appreciated elsewhere (CDE, 2007:4).

The reasons for skills shortages vary and among them are political climate, government and corporate policies, HIV and AIDS, crime, environmental issues and emigration due to better opportunities elsewhere. The Mail & Guardian (2008) suggests that in South Africa, the skills shortage is also as a result of the HIV/AIDS pandemic that the country is experiencing. Akoojee and McGrath (2007:424) provide an additional reason for South Africa's skills shortage, namely the apartheid system, where skills were based on race and gender.

To address the problem at hand, the government designed various initiatives and policies, such as the Skills Development Act (SDA) of 1998, the Skills Development Levies Act [No 9 of 1999], the Sector Skills Plan, the Accelerated and Shared Growth South Africa (ASGISA) 2006, the National Skills Plan, the Sector Education and Training Authorities (SETA), the National Skills Development Strategy, the Human Resource Development Strategy (HRD), the Framework for National Skills

Development Strategy and the Joint Initiative on Priority Acquisition (JipSA). All these initiatives are dealt with in more detail in Chapter Four.

On the one hand, South Africa is a major foreign migrant-receiving country in the region and a beneficiary of an intra-continental brain drain. In January 2004,former President Mbeki claimed that there were 7 million 'illegal immigrants' and 3 million Zimbabweans in South Africa, although these were figures without any basis (SRI, 2008:5). Black, Crush, Peberdy, Ammassari, Hilker, Mouilesseaux, Pooley and Rajkotia, (2006:115) mention that the overall number of 'visitors' to South Africa from other countries in the region rose significantly with the collapse of apartheid, from 500 000 in 1990 to 5 million per annum at present.

Experts around the world agree that there are skilled immigrants in South Africa, but the uncertainty lies in the capacity of the national economy to absorb them simultaneously with newly minted home-grown experts. Skinner (1999) opines that since the mid-90s there has been an increasing number of foreigners, particularly from African countries, who work on the streets of several South African cities and small towns.

Due to its stability and statutes and the perception of being Africa's economic power house, there are an increasing number of prospective students, economic immigrants, refugees and asylum seekers fleeing to South Africa. This supports the notion that these refugees and asylum seekers include a number of qualified people that can benefit the country.

International experience suggests that skilled immigrants and migrants make important contributions to any country's economic growth and development. Immigrants can fill gaps created by emigrating skills or the inadequacies of the country's education and economy through innovative ideas and skills. There should be an awareness of the profile and contribution of South Africa's current stock of skilled immigrants (Mattes, Crush and Richmond, 2000:1). These contributions can be beneficial for the host country, as well as for the country of origin, and can be on the basis of short, medium and long term advantages.

Examplesare Kamuzu Banda, Jomo Kenyata, Thabo Mbeki, Jacob Zuma,Jose Eduardo Dos Santos and Joseph Kabila, amongst others. Azikiwe, the Nigerian

independence leader, studied at Lincoln University in Pennsylvania, America, as did Kwame Nktuma, while Agostinho Neto studied in Portugal. Without this brain drain, perhaps their respective countries' independence would have occurred much later (Easterly and Nyarko, 2005:2-3). A sporting example is in the football world, where Africans are playing abroad and gaining the much needed expertise and remuneration as major league players.

From a practical perspective, this research dissertation set out to demystify the question of skills shortages in South Africa, and to discover how to transform brain drain into brain gain, whilst understanding the socio-economic impact of immigrants. The research assumes that foreign skills are wasted in South Africa, while the state complains of priority skills shortages in the economy.

## 1.2    RESEARCH PROBLEM

The shortage of professionals and artisans in particular, is seen to be a result of the country's historical past and the post-apartheid government is attempting to rectify imbalances by dealing with this issue. Fasset (2010:1), Brier and Erasmus (2009:1) and the CDE (2007:3) hold that a skills shortage is widely regarded as a key factor preventing South Africa from achieving its target growth rate. The demand for skilled labour has gradually increased over time and is bound to increase further, while the supply of those skills has not kept pace. South Africa is not the only country that experiences skills shortages and brain drain.

Several developed countries face brain drain through emigration of their own highly skilled citizens, who are generally the most mobile population group. South Africa should take more advantage of this international migration of highly skilled persons. The country has so far primarily participated in a one-sided migration, namely the emigration of its own talents (brain drain). Increased participation in the other side of migration, namely the immigration of foreign talents, could balance the brain drain through an inflow of much needed skills (brain gain) (Höppli, 2014:18).

According to Pressly (2007:2), more than 40000 jobs in the public sector were vacant and this was owed toa lack of a skilled labour force to fill the vacancies. Meanwhile more than 829,000 unfilled vacancies for skilled people in the private sector were

reported. Based on World Bank data on the skills composition of emigrants from South Africa, it can be inferred that since 2013 almost 500,000 highly skilled people were living overseas – a significantly lower number than the number of unfilled vacancies in the country.

The demand for skilled professionals will increase as the South African economy grows. The skills shortage that has been restricting the economy's potential could be alleviated through the recruitment of sufficient numbers of skilled immigrants. Skilled labour is an important driver of economic growth, which is a prerequisite for sustainable job creation for unskilled people, and a means to tackle the high unemployment rate in the country (Höppli, 2014:17, 18).

The problem that the study seeks to address is two-fold.

The first part of the problem revolves around the need to ascertain whether South Africa's problem of skill shortage or "brain drain" is indeed a reality or a myth. The second seeks to investigate whether refugees, asylum seekers and immigrants of African origin have the necessary skills to serve as the alternative for brain drain in South Africa. The research problem may, therefore, be summarised as follows:

South Africa's public and private sector face skills shortages, whilst at the same time they are underutilising existing skills that immigrants, refugees and asylum seekers may have, which could help to curb skills shortages while also contributing to the economy and creating much needed jobs in the country.

### 1.2.1 RESEARCH PROPOSITION

This research study is premised on the following propositions: firstly, the South African public and private sectors are facing skills shortages, and at the same time they are under-utilising existing skills that are brought by immigrants, refugees and asylum seekersthat could assist to curb skills shortages and improve service delivery, whilst creating jobs in the country.

Secondly, there is a perception that refugees, asylum seekers and immigrants do not create jobs; instead, they take the jobs of locals and bring no skills with them.

Thirdly, refugees, asylum seekers and immigrants of African origin do not have the necessary skills to serve as alternatives for South Africa's brain drain.

## 1.3 RESEARCH QUESTIONS, SUB-QUESTIONS

### 1.3.1 Research questions

In light of the problem presented above, the main research questions are outlined below.

- Do African immigrants have the critical skills that South Africa requires?
- What socio-economic impacts are likely to be present in South Africa in relation to job creation and alleviating future poverty?
- What types of skills do immigrants, refugees and asylum seekers bring into the country?
- How can the problem of skills shortage be addressed in light of the present situation?

### 1.3.2 Sub-questions

The following are sub-questions that have been formulated that should provide answers to the research question.

- Can the skills that refugees, asylum seekers and immigrants bring with them be used to serve as viable alternatives to the skills shortage in South Africa?
- What is the cause of the skills shortage in South Africa?

In order to find answers to these questions, the researcher conducted a literature search and an empirical study to acquire information that relates to the type of skills that immigrants have and their contribution to the country in an effort to alleviate South Africa's skills shortage.

## 1.4 SIGNIFICANCE OF THE STUDY

South Africa faces various challenges: political, social and economic. The major problem is the skills scarcity. Although there is an abundant and diverse work force

that needs to be recognised and prudently managed, the public sector alone demands a greater variety of skills than is readily available.

This study provides information on the brain drain phenomenon, the availability of skills in the immigrant community (including refugees and asylum seekers), and how they can be used to benefit the country. The following are some of the benefits that the research has highlighted and needs to bring to the government's attention.

- To create awareness and an understanding of latent advantages that a diverse workforce has to offer the country;
- To create an alternative database, namely an "information-bank" for the government through an e-government strategy, as well as a framework through which to share information and make it available as a source to capture available skills within the country;
- To guide the government to establish new labour policies or amend existing policies that seek alternative means to attract, recruit, educate, train, employ, integrate, track and create conducive working environments. It will be beneficial for identifying existing skills amongst immigrants.

This research is valid, action research, as the findings serve to design policies, as well as create a data base and will make recommendations in line with what other countries are doing by suggesting that similar models should be constructed and adapted as long as they are suitable for this country. This would serve as a model to educate (academics), train (practical), retain, recruit and attract employees, which may help to reduce failure to fill vacant posts in South Africa's public sector.

## 1.5    OBJECTIVES OF THE STUDY

This study aims to conduct a skills audit amongst the immigrant communities (refugees and asylum seekers) in South Africa, and in Cape Town in particular.

### 1.5.1    Specific objectives

The research addressed the following specific objectives:

- Understanding the socio-economic impact of immigrants;

- Understanding and critically investigating factors that cause immigrants to leave their home countries;

- Understanding, assessing and critically investigating refugees, asylum seekers and immigrants' skills sets and how best these can be utilized to benefit the country;

- Understand government's response to skills shortages;

- Suggest a model that will help the government with decisions that relate to how to use the skills that are brought into the country asa means to manage, resolve and understand the country's skills shortage and brain drain and

- Recommend the formulation of policies and strategiesthat address the problem and serve as alternatives so that the government can train, educate, attract, employ, integrate and retain skilled and experienced individuals in the country, especially in areas where there is a need for specific skills.

## 1.6    RESEARCH METHODOLOGY

The presentation of methodology requires attention to detail. Discussion of the methodology includes sources of data, data collection instruments and analysis, which must be appropriately adapted for the purpose of the study, and the sampling technique. According to Domingos (2007:4), methodology is a generally comprehensive and systematic process that is followed by studying the researched topic, whilst establishing how one will go about studying a phenomenon and what instruments will be used in the study. According to Schwenke (2009:49), there are various ways to classify research methods. The most common distinction is between quantitative and qualitative research methods.

The following definition allows one to better understand the concept of research. Domingos (2007:5) defines research as an organized process and effort to conduct an investigation into a scientific problem with the unique aim of finding data that can be transformed into information, thereby answering or providing a solution and/or explanation for the variable, phenomenon or problem.

This definition is supported and expanded upon by Brynard and Hanekom (1997:28), who posit that in order for research data collection to be executed with success, a proper planning structure needs to be implemented in line with the demands of validity,

truth and objectivity. A literature search was conducted into the issue of brain drain and skills shortages in South Africa and the rest of the world, as well as an in-depth study to assess the role of immigrants, refugees and asylum seekers in the brain drain phenomenon and to assess the claims of brain drain or skills shortage in South Africa.

Information for the research was gathered from two sources, namely primary and secondary sources. The primary data was collected from universities, namely the University of Cape Town (UCT), the Cape Peninsula University of Technology (CPUT) and the University of the Western Cape (UWC) and the secondary data came from the Western Cape Home Affairs Department and its refugee offices in Philippi and Cape Town Central and information from the Internet. The reason for conducting the literature review was to educate the researcher about what had been written about the subject by other authors.

According to Makhotso (2009:67), a literature review is the process of finding out about previous work from a range of literary sources.  It involves both a preliminary literature study and in-depth literature study and while the former is to obtain a 'feel' for the topic and the issue/s involved, the latter involves a more comprehensive study. The most relevant sources that are consulted in a literature review include journal articles, dissertations, scientific books, newspapers, radio and television programmes and the internet. It is important that any research study engages in a literature review for the following reasons:

- To gauge perspectives from the most recent research findings;
- To discover the best methods and instruments for measurements and statistics;
- To improve interpretation of one's own research results;
- To help to determine the relevance of researching a particular topic (Makhotso, 2009:67).

### 1.6.1   Quantitative methods

The quantitative research approach considers investigating things that can be observed and measured in some way. Maree (2007:145) defines quantitative research as a process that is systematic and objective in its ways of using numerical data from only a selected sub-group of the population and to generalise the findings to the entire

population that is being studied. It is imperative that quantitative data is accurate and precise.

Stead and Strewig (2001) define quantitative research as a process where the observed elements are explained, described and manipulated using numerical representation. Accuracy is particularly important when acquiring facts about any characteristic that can be generalised to the target population (Glesne, 2006:79).

Mouton and Marais (1988) emphasize that the techniques or methods utilised in this type of research use numbers as values and quantify opinions. This is regarded as an effective way to describe a phenomenon. This contrasts with qualitative studies that produce data in the form of peoples' words or the researcher's descriptions as a means to gather respondents' perceptions.

According to Creswell (2012:113), quantitative research involves post positivist claims and investigators primarily use it to obtain a body of knowledge that enables them to understand the relationship between cause and effect. The researcher tests hypotheses, identifies variables, analyses responses to questions, uses measurements and tests theories and employs strategies such as surveys and questionnaires as data collection instruments that provide statistical data. The quantitative methodology that was applied for this study was used to determine whether or not people within the immigrant community possess skills that the country needs and the type of skills and qualifications that the country requires.

This method was used given that it allows for a larger number of the population to be reached and represented in order to avoid unfairness in the study. The questionnaire was structured as a means to obtain data and to target as many participants as possible. The outcome of the questionnaire was later analysed by a qualified statistician.

### 1.6.2 Description and identification of the target population

According to Welman, Kruger &Mitchell (2005), sampling is used to select cases for inclusion in research. Collis and Hussey (2009:106) hold that a correctly chosen sample will present an accurate extract of the population without error or bias in the results. The researcher must ensure that the sample is collected in a systematic

manner so that the impact of the sample members on the results can be estimated and evaluated.

The choice of a sample size is crucial, according to Struwig &Stead (2007), who hold that accuracy of the measurement must be balanced against cost and feasibility. Emory & Cooper (1991:228) define two methods of survey sampling, which are expanded upon here. The first is the conventional sample, which considers a limited number of elements that are smaller than the chosen population (typically chosen randomly), and that will accurately represent the total population without bias. The other is the census approach, where attempts are made to survey every element within the population. The sampling procedure was initiated by identifying the target population that was to be studied. The target population comprised immigrants who are of African origin and who reside in Cape Town. The sampling procedure was, therefore, designed to produce a non-representative sample. The selection procedure for the population sample was based on two sampling methods, namely random sampling and purposive sampling. The target population consisted of immigrants who are of African origin, are 18 years and older and live in Cape Town in the Western Cape. This geographical region was selected for the study as it was deemed likely that Cape Town had a much higher number of immigrants than other cities.

### 1.6.3 Survey instrument

The researcher used a quantitative method for this study. The choice depended on aspects such as the need to be either subjective or objective, specific or general, explanatory or predictive, as explained by his interpretation of Myers' work and as cited by Dakora (2007:7). As a way of preventing unethical conduct, avoiding dishonesty and ensuring the objectivity of the respondents while completing the questionnaire, it was designed with these concerns in mind.

There was also a need to evaluate and validate the study and to reach as many community members as possible. Hence, the importance of the questionnaire.

One of the primary data collection instruments in research is the survey questionnaire. Modes of data collection by questionnaire differ in several ways, including the method of contacting respondents, the medium of delivering the questionnaire to respondents,

and administration of the questions. Questionnaires are an inexpensive instrument of data gathering for a potentially large number of respondents. At times they are the only feasible way to reach a number large enough to allow statistical analysis of the results. A well-designed questionnaire that is used effectively can gather information on specific components of the system as well as information on the overall performance of the test system.

If the questionnaire includes questions related to participants' demographic details, these can be used to correlate performance and satisfaction with the test system among diverse groups of users (O'Leary, 2004:58). Self-administered questionnaires are instruments that the respondents are required to complete themselves. In this study, the questionnaires were administered and collected by the researcher. Anonymity was guaranteed and confidentiality ensured throughout the process.

As part of the introduction to the administration of the questionnaire, both the researcher and the purpose of the study were introduced and the process was explained in English (O'Leary, 2004:90; Groves, Lepkowski, Singer& Tourangeau, 2004:156). Closed-ended questions were used to limit lengthy answers and were pre-coded for analysis. All questionnaires were assigned a serial number on each page for identification and to avoid confusion should any pages go missing.

**Closed-ended questions:** provide 'ready-made' categories within which respondents reply to questions posed by the researcher. This ensures that the required information is obtained (Kumar, 2005). The respondents were given a set of choices from which they could choose to answer the question, for example, "yes" or "no", multiple choice and a rating scale. Closed-ended questions can usually be answered quickly, allowing researchers to gather large amounts of information in a short amount of time. A disadvantage is that respondents may rush through the questions and not take enough time to think about their answers. This type of questioning was regarded as suitable for this topic, as the questions and answers that were provided were instrumental in identifying and providing input that related to the hypothesis that was formulated (Collis and Hussey, 2009:45).

**Bias***:* The principal objective of a scientific enquiry is to allow the researcher to arrive at valid conclusions that can only be achieved through observational or experimental research if bias is eliminated.

The survey design used both descriptive and analytical surveys. According to Collis and Hussey (2009:45), the descriptive survey is mostly used in business research in the form of attitude surveys. The descriptive survey also has characteristics that indicate the number of members in a particular population who have a similar characteristic. Particular attention was paid to the way in which questions were posed to avoid bias in the formulation of the questions.

The statements within the survey were designed with the following in mind: to avoid double-negative statements; to avoid double-barreled statements; to avoid prestige bias; to avoid leading statements and to avoid the assumption of prior knowledge.  A pilot study was conducted to ensure a high degree of validity (Collis and Hussey, 2009:45).

### 1.6.4   Primary sources of data collection

According to Leedy (1985:88), all data that are obtained or which lie closest to the source of the phenomenon are referred to as primary data. English was used as the main language and an interpreter was available for those respondents who found English too difficult. This study is an example of social research and deals with the phenomenon of brain drain and how to turn it into brain gain for South Africa. In social research there is a choice of methods available for use. Data were collected in two phases and the techniques that were used to obtain useful information were the primary source of information. This was the "empirical survey", which constitutes data stream 1 in a research project and consisted of a workshop and the questionnaires.

An administered questionnaire was chosen for this study rather than another type of questionnaire that could also have been suitable (Strewing, 1996:56).

### 1.6.5   Secondary sources of data collection

The secondary source of data collection was a descriptive study of existing literature with relevance to the topic under investigation. The secondary sources of information

wererelevant books, journals, newspaper articles, academic papers, official reports, periodicals, government policies such as legislation and subordinate legislation, minutes of meetings, official publications and other policy documents, unpublished research and other applicable published and unpublished material. A literature search was undertaken by the researcher to become more acquainted with the existing knowledge with regard to the research topic. This was data stream 2.

## 1.7    DEFINITION OF TERMS

### 1.7.1    Brain drain

According to Fourie (2006:7) citing Abedian (2001), brain drain refers to processes through which a country loses trained experts, namely professionals, technical and kindred workers, to other countries.

### 1.7.2    Brain circulation

This term refers to professionals who leave their home countries to work and live in another country but who at some point return to their home country permanently(Fourie, 2006:10.1.7).

### 1.7.3    Migration

The term "migration" might appear clear-cut and unambiguous, but it is not. For most people it carries the connotation of a physical move, often, but not necessarily, between countries for permanent settlement, or at least a long-term stay. In reality, the term refers to a wide range of forms and types of movement or mobility. As indicated below, the different types and forms of migration tend to overlap and blend into one another (Kelo and Wachter, 2004:3*)*.

### 1.7.4    Scarce skills

Daniels (2007:2) citing the food and beverage SETA (2005:42), defines scarce skills as a scarcity of qualified and experienced people and of positions that remain unfilled for prolonged periods of time, currently or in the future, either because (A) such skilled people are not available or because (B) they are available, but do not meet the criteria.

### 1.7.6    Critical skills

These are the types of skills necessary for the optimal functioning of an organization, such as audit expertise and/or communication (Fasset, 2009:5).

### 1.7.7    Asylum seeker

An asylum seeker is a person who has lodged an application for asylum with the Department of Home Affairs and is waiting to be granted refugee status.

### 1.7.8    Refugee

A refugee is one who is forced to flee his/her country owing to a fear of persecution due to religious beliefs, armed conflicts, civil upheavals and general violence, is outside the country of his/her birth and as a result of such fear, is unable to submit to the protection of his/her previous state.

### 1.8    LIMITATION OF THE STUDY

This research was conducted in its entirety in the vicinity of Cape Town, mainly owing to a lack of sufficient funds, material resources and human capital.

### 1.9    ORGANISATION OF THE CHAPTERS

**Chapter One:  Introduction and background of the study** provides an introduction and background to the research problem as part of the scope of the study. It outlines the main research question, sub-questions and objectives of the study. Basic terms and concepts are defined, while the methodology of the research is described briefly. The chapter indicates the delineation and contribution of the study. **Chapter Two: Theoretical overview of brain drain and brain gain in an international context: a review of brain drain and brain gain across the universe** presents relevant literature.  The descriptive study explains the terms "brain drain and brain gain" and includes a description of political, economic, non-economic and social factors. The chapter also examines the trend of turning brain drain into brain gain and includes opportunities, challenges, advantages, disadvantages, impacts and causes in this respect. It concludes by summarising the literary sources that were reviewed. **Chapter Three: SADC's brain drains as an alternative to South Africa's skills shortage: Turning brain drain into brain gain**provides an introduction and

background to the research problem and seeks a viable solution and opportunities that this phenomenon could offer by making suggestions that have been tried and tested in other countries that could be beneficial for South Africa, whilst also addressing the challenges of turning the brain drain problem into a brain gain opportunity.

**Chapter Four: Brief historical overview and assessment of past and present education and labour** provides a detailed explanation of past and present education, as well as labour policies, while **Chapter Five: Research design and methodology** provides a detailed explanation of the methodology and design of thisresearch.

**Chapter Six: Data presentation analysis and discussion,** discusses and presents the research study's results and **Chapter Seven: Developing a normative model for Data–Bank (data base)** provides a detailed design and develops a normative, integrated model to assist the government to formulate policies that will assist in dealing with the issue of skills shortages and enable recruiting, attracting, retaining, developing and training personnel, whilst compiling a data base that contains pertinent information that will serve to inform future government policies regarding the issue at hand. **Chapter Eight: Recommendations and concluding remarks** ends the dissertation.

## 1.10    SUMMARY

Chapter one deals with the significance of the research and identifies the scope of the study. Africa has suffered three types of brain drain. Brain drain has under gone significant transformation since its inception. It is not about slave masters using a carrot and a stick to coerce Africans to work on their plantations. Neither is it about oppressing Africans and forcing them to implement draconian foreign policy on domestic turf during the colonial era. In the postcolonial era the phenomenon has attained more creative ways and assumed greater proportions. Quantitative methodology was used in this study and information was acquired from both primary and secondary sources. People who are directly affected by the phenomenon, such as policy makers, public service officials and members of the immigrant community, represented primary sources of information and were probed accordingly.  Secondary sources of information were both published and unpublished materials from a wide range of sources.

This research was not intended to prove proportional representation of skilled individuals within the African immigrant community; rather, it aimed to provide evidence of skills shortages and the nature of available skills amongst non-South Africans. Chapter two introduces selected researchers' theories regarding brain drain and brain gain, socio-economic impact and advantages and disadvantages in South Africa and in the international society, thereby providing an overview of the topic in a global context.

# CHAPTER TWO

# THEORETICAL OVERVIEW OF BRAIN DRAIN AND BRAIN GAIN IN AN INTERNATIONAL CONTEXT

## 2.1 INTRODUCTION

Global experiences suggest that skills shortage is an international trend. Employers, countries and organizations around the world continue to experience a shortage of skilled professionals in most sectors. This shortage of skilled professionals is not only experienced by individual organizations or sectors but also by communities, states, regions and provinces and as a result, the entire nation pays the price when they cannot find or equip workers with the correct skills for critical jobs that would contribute to more productivity in the workplace and economic growth overall.

International migration is linked to the changes the world is facing and capitalism is giving way to the internationalization of the labour force and markets. The international division of labour is a critical component. Since the 1980s these patterns have been seen and experts attribute this to the globalization of transportation and communications technologies. The gap between rich and poor is a destabilization factor.

Governments and private individuals invest millions of US dollars in the education and development of their citizens to improve knowledge and skills, with the intention of improving the living conditions of communities and enhancing economic growth. This is something to which most African governments do not pay much attention, as their budget funds often find their way into private pockets and where finances are said to be used prudently, there is no value for money.

Information from the literature indicates that student migration is an age-old process. Student mobility can be traced back to Pythagoras (569-475 BC). At one stage, 10% of European medieval university students were international. Research indicates that medieval universities had no physical location and a faculty could relocate from one city to another, taking the students with it, which suggests that the students migrated *en masse* (Portnoi, Rust & Bagley, 2010:236; Gürüz, 2008:1; Lyons, 2008:19; Teichler, 2007:1 cited in Gubba,2014:22). The research also indicates that mobility in

the field of knowledge has been part of the history of the university system, with the aim of achieving equivalence at universities. Chessa (2012:63) opines that student migration has been an important global factor throughout history.

The process is linked to the evolution of institutions in terms of their structures, functions, governance, administration and financing of higher education, all of which are aspects that support the mobility of students (Gubba,2014:22). Chimanikire (2005:16) holds that there is no consensus among researchers that migration brings more of a positive than negative impact. The research flows between countries is not one-directional.

## 2.2    DEBATE AROUND BRAIN DRAIN IN THE WORLD

There are various perspectives with regard to migration. From a contemporary perspective, one can see that brain drain is ongoing and there is a plethora of literature on the subject. It cannot be assumed that any country does not suffer from the loss of skilled personnel or professionals, whether or not they are highly trained (Adams, 1968).

It is difficult to imagine that they cannot potentially benefit from their highly and lesser qualified expatriates in terms of the transfer of technology, remittances, political support, networks and knowledge (Grubel &Scott, 1966 cited in Gaillard, Gaillard&Krishna, 2015:270).

Generally, economists attribute African developmental delay to globalized migration but this view has been refuted by several authors. (Doquier and Rappaport,2009) hold that while there is a group of pessimists, on the other hand there is a group believing that migration is a good thing and can bring some positive impact, including remittance of funds, technology transfer and return migration after obtaining additional skills. Although ignored by most, these factors may contribute to the development of the sending countries.

A potential benefit of migration for sending countries that has not received much attention in the literature is the incentive effect on human capital formation. At times referred to as' brain gain', suggesting that those left at home see this as an incentive to invest in the acquisition of knowledge and improve the human capital, which,

according to the endogenous growth theory, is a key determinant for long-term economic growth, when decisions to invest in education are made with the future in mind. Secondly, there is the perception that returnees are likely to solve theproblem of the country's skills shortage. Even if all highly-skilled emigrants returned, a few hundred thousand vacancies in the country would still not be filled (Gaillard, Gaillard & Krishna, 2015:270).

Gaillard, Gaillard & Krishna (2015:270) posit that brain drain can eventually be turned into brain gain and alternatives have emerged in countries that traditionally suffered from brain drain alone. These alternatives include, on the one hand, national policies to attract educated expatriates (the return option) and conversely, programmes that are aimed at linking together educated expatriates via the Internet (the Diaspora option).

Brain drain is regarded as one of the greatest threats to socio-economic development on the continent. The need to reverse brain drain and reposition Africa in the twenty-first century cannot be over emphasized. The current situation in African countries demands that Africa should embark on a radical project to redeem itself from poverty, underdevelopment, disease and hunger. The movement of highly skilled people from one country to another is currently a hotly debated issue among policymakers, especially as the brain drain is not an exclusively African problem; it is a global phenomenon. To some extent, every country in the world loses highly educated and skilled individuals to other countries. However, the magnitude, direction and causes differ from one country to another (Gwaradzimba & Shumba, 2010:210).

According to Roudgar and Richards (2015:74) citing Friesen (2014), there is an increase in the global movements of people that affects the way we share knowledge and trade, giving rise to 'talent' mobility. This phenomenon is being approached in binary terms of 'push' and 'pull' factors between developed and developing countries.

According to Roudgar & Richards 2015:74, there is a need to demystify the general perception that only developing countries are affected by push factors and that if they do not have pull factors, they lose out.

Current debate on 'brain drain' and 'brain gain' has begun accumulating evidence that allows the examination of the causal relationship between migration and human capital formation in the source country. Five potential mechanisms have been proposed (McKenzie&Rappaport, 2011).

- Remittances can help to alleviate poverty by enabling households to buy food and diminish credit constraints that may prevent families from putting their children through school;
- Increased incentives for education and the prospect of a better life improve the expected returns from education. Several authors refer to this as the wage premium effect;
- Migration is facilitated by the existing Diaspora's network of migrants who provide moral support in an informal way, thus reducing transaction costs and risks;
- Parental absence and the lack of parental support, care and guidance is perceived as a negative effect;
- Other negative effects can occur if emigration increases the value of local child labour, thus encouraging children to drop out of school.

This has been termed the 'labour substitution effect'. It can be difficult to separate the influences of these five mechanisms mentioned above (McKenzie&Rapoport, 2011).

The debate surrounding international migration is mostly clouded by assumptions and stereotypes, thus influencing how people see it as a negative phenomenon from which no country is exempt.  In contemporary times migration is complex and takes on several more forms than the last few centuries. The effects on the economic, social and domestic policies of the state and international relationships has helped to ensure demographic changes in the movement patterns of people.

Despite the abundance of theoretical literature regarding the 'brain drain' theme, the empirical literature has lagged until recently. This is at least partly due to the unavailability of data relating to the skills content of migration flows. Docquier and Marfouk (2004) assembled a dataset that opened an avenue of renewed interest in the theme, prompting new research to verify and qualify the 'brain gain' hypothesis across countries and over time (Ozden and Schiff, 2005; Beine et al., 2008). In these

authors 'opinion, this hypothesis remains to be tested at a micro level as cited by (Batista, Lacuesta &Vicente, 2012:32).The debate is couched in binary terms. Tannock (2007:5) holds that the global brain drain debate focuses on two issues:

- Firstly, the north gains and the south loses and secondly,
- The north poaches and the south suffers.

Brain drain in the north and south receives much less attention, not because it does not exist, but because it is trickier to articulate and champion. Certain large African countries, notably South Africa and Nigeria, suffer the loss of skilled personnel to the north. They also have the potential to be beneficiaries of an intra-continental brain drain (Crush, Campbell, Green, Nangulah & Simelane, 2005).

In the opinion of Roudgarand Richards (2015:76), it is important to note that the main cause of professional movement overseas is due to various factors, including seeking better advantages in richer countries and higher wages in more developed countries. The authors hold that global brain drain is guided by supply and demand imperatives.

The debate does not end there. According to Michel, Romain and Ragot (2014:40), certain people emigrate with the aim of acquiring specific skills. Recent literature indicated that the emigration of workers induces two effects (Beine, Docquier & Rapoport, 2008; Docquier & Rapoport, 2012):

- Firstly, it causes the depletion of the existing skills stock in the country of origin;
- Secondly, in a subtle way, it serves as an incentive for uneducated migrants to educate themselves while abroad with the objective of achieving higher returns.

A **divergent school** of thought is that when the best men and women leave the source country it constitutes a loss of skills and weakens the county's capacity for development. Those representing the **convergence school of thought** posit that various authors are exaggerating the problem. They found middle ground and emphasis the beneficial consequences of migration for both the receiving and source countries. Available evidence indicates that in certain instances the negatives outweigh the positives and vice versa, as illustrated in the preceding discussion.

In the early 1960s literature began to emerge that focused on the impact on welfare for economies that experienced a loss of skilled labour.Johnson (1965) postulates that in the absence of any convincing evidence to the contrary, there is no significant proof that the world loses with the increasing global migration of skilled people. He holds that all countries are affected by brain drain, but that the total social loss to less developed countries is greater than the gain of the migrant.

Emigration of skilled workers improves the nation's human capital-labour ratio and in the long term increases the average income in the source country (Grubel and Scott, 1966). The potential benefit to the sending country is from the research of scientists and engineers in the foreign country. However, they ignore the positive impact of the welfare.

Weisbrod (1966) raised criticisms similar to those of Grubel and Scot (1966), theorizing that the theoretical distribution of the individual's total income should not be the focus and that more emphasis should be placed on the average income. Kilchenmann (2005:17) posits that to minimize the brain drain's negative effects, a compensation schemes should be introduced.  There were calls for the developed countries, which attracted 'brain overflow', to pay some kind of tax ('brain taxation' and 'income taxation'), to the less developed countries (Roudgar and Richards, 2015:76).

Gwaradzimba& Shumba (2010:210) indicated that in the African context the notion of brain drain is used to capture the dilemma that underdeveloped states face in their interaction with relatively advanced states. The bone of contention is that the transfer of intellectuals from resource-poor to resource-rich countries represents a "brain gain" for the latter. The cost of producing these intellectuals is borne by the poor countries and the country of destination reaps the benefits. Thus, for the recipient country, the phenomenon of "brain drain" expands its overall national wealth and strengthens its human resource base.

Literature has shown that industrialized countries increasingly need two sorts of labour:

- Those that are prepared to work at poorly paid, dangerous and dirty jobs that their own nationals disdain and

- Those professionals highly specialized in specific areas, such as doctors, software specialists, engineers and educators (Gwaradzimba & Shumba, 2010:210).

Brain drain is regarded as a form of "intellectual colonization" by the First World (Oduor, 1994). At present, the term "brain drain" is used interchangeably with terms such as "human capital flight" (Sako, 2002:5); "quality migration" (Todisco et al.,2003); "skilled international migration" (Findlay, 1996:3); "intellectual migration" and "skilled international labour circulation" (Zeleza, 1998:21); "professional transient" (Appleyard, 1991:2); "brain mobility", "migration of expertise" and "reverse transfer of technology" (Dowty, 1986:157). Other terms that recently emerged from Third-World scholars include "intellectual colonization" (Oduor, 1994:1); "intellectual desertification "and "brain hemorrhaging" (Sankore, 2005:9).

Over the past 40 years the number of people studying abroad has grown as a result of internationalization or globalization. The number grew fourfold between 1975 and 2008 in several categories of migrants. A number of these migrants' were international students. Foreign students are sought after in developed countries for a number of reasons, some of which are explained below.

- Firstly, universities see these students as representing an important and reliable source of income for them. In several of the OECD countries they are decreasing the number of prospective local students and luring the foreign nationals to study at their institutions, given their perceived higher quality, they minimize the negative effects of the declining student population (Michel, Romain & Ragot,2014:40).The same authors hold that in certain countries international students pay higher fees than domestic students. This allows them to circumvent the legal constraints in terms of conditions for registration, including fees;
- Secondly, as part of their strategies to help former colonies with some form of aid, they favour students from these countries. The higher education received by these students serves as a vehicle that allows host countries to diffuse cultural, economic and political norms abroad. For instance, Spilimbergo (2009) holds that by so doing the same students are actually used as standard bearers

to promote their ideal of democracy in home countries after acquiring foreign education, and

- Thirdly, students' movement is related to another form of migration, that of highly skilled workers. Like other forms of migration, namely forced migration, the migration of skilled workers is part of the globalization process (Docquier & Rapoport, 2012 cited by Michel, Romain &Ragot,2014:54).

Globalisation has made all this possible. It introduced several opportunities for skilled professionals, students, non-professionals and technicians who live in any part of the world to seek jobs anywhere in the world. Today, companies and countries that need skilled labour can recruit from anywhere in the world at any given time (Sankore, 2005:6).

Current debates with regard to globalization are filled with redundant and polemic notions. Whether defined as liberalization, internationalization, universalization or westernization, globalization often fails to find objective responses. When debating the subject, in a number of cases a religious dogma and ideological loyalty is followed as a pattern; globalization does not take place in a void. It is important to examine the dynamics, assumptions and factors due to its systematic impact on countries. If globalisation has been a victory for neo-liberal economies within the sphere of state policy-making, then it is of critical importance to know how and why this finds expression in post-apartheid South Africa (Domingos, 2007:17).

Globalisation, also referred to as imperialism, became the watchword of the 1990s. It has become impossible to regulate or transform local economies, as it has been argued and proposed by those in favour of it (Domingos, 2007:17).

First, there is a need to define globalization, which is not easily defined. But Cao (1996:271) provided a summary of the four major perspectives on globalization, which are outlined below.

- Political globalisation -is sold to the world as an international redistribution of power and resources after the fall of the former communist power block in the 1990s;

- Economic globalisation -is an integration and interdependence of the world's economies, coupled with competition for limited market share and natural resources (benefiting multinationals and individuals);
- In cultural terms -globalisation is interpreted as a battle over values between east and west, accompanied by wars among different religions and ethnic groups for domination (Africa is not noted here), and
- In the context of science and technology -globalisation implies a balance between control and decentralization of information systems and equal access to the latest developments in communication.

Globalisation has initiated an ongoing process of reciprocal exchange among various countries, where the transfer of professional skills from one place to another forms part of an economic system in which human resources are available to various systems of production, irrespective of where they are located. There is no reciprocal osmosis between rich and poor countries in the global economic and labour market system that is said to transcend International boundaries (Gwaradzimba & Shumba, 2010:210).

Globalisation is fraught with inequalities and exploitation of resources, both human and material, amongst the poor by the rich, and has increased poverty and underdevelopment in less developed countries. Buthelezi (2007:4) observes that" while globalisation shrinks the world, the distance between its richest and poorest grows remorselessly". In view of the foregoing, it is essential that the term "brain drain" be redefined to expose the evils of capitalism and neo-imperialism. In the true sense, the term "brain drain" should be defined to mean that, which is explained below.

A deliberate and systematic act by a country of superior power relations, which consistently and persistently draws off, pumps out, withdraws, removes, empties, or haemorrhages highly skilled persons from a poor-source country, using direct or indirect means such as coercing, enticing or creating unfavourable socio-political and economic conditions that make staying at home unbearable, thus forcing highly skilled professionals to leave their country (Gwaradzimba & Shumba, 2010:210). Domingos (2007:19) elaborates on the systematic manifestation of globalization, identifying eight major dimensions, namely:

- Financial globalization;

- Technological globalization;

- Economic globalization;

- Cultural globalization;

- Political globalization;

- Ecological globalization;

- Geographical globalization and

- Sociological globalization.

The author also identified other dimensions such as academic and environmental.

Cao (1996:271) mentions that the characteristics of contemporary globalisation are the following:

- It is dominated by concerns for the global economy;

- It refers to all nations in the world that either participate in,or are affected by, the process;

- It affects several sectors, especially those that involve politics, economy, culture and education, and

- It is a complex and long term process with an unclear future.

Globalisation not only leads to more opportunities for people to work abroad, but also to study and live in any part of the world owing to liberalization and other factors. Liberalization contributes to brain drain and gain. The world has become a global village. African countries need to cooperate with the rest of the world. Globalisation is the new threat to Africa and currently it has to do with schemes implemented by rich countries to attract highly skilled and trained Africans that threaten Africa with a net loss of quality human resources (Sankore, 2005:12).

In more straightforward terms, on a world scale, South Africa runs the risk of turning into an intellectually broken nation once it has lost the majority of its skilled professionals through the various successive visa and migration schemes. The consequences to development would be catastrophic for those who are left behind (Sankore, 2005cited by Gwaradzimba & Shumba, 2010:210).

According to Brettell and Hollifield (2015:3),the movement of large populations throughout the southern hemisphere, such as refugees in Africa or "guest workers" in Asia and the Persian Gulf states, led one analyst to speak of a global migration crisis. Whether and where there might be a migration crisis remains anopen question.

### 2.2.1. Various points of view on migration theory

Trends in recent years have considered ways in which emigration flows might have positive impacts back home. This may occur via remittances, increased access to trade, investment, knowledge and technology from strong overseas ties with expatriates who returned home with newly acquired skills and resources. New highly theoretical abstract literature has emerged in the field of economics that proposes that brain drain can benefit sending countries by raising overall levels of education among their populations.

Brain drain does not occur only in countries, but also in cities, suburbs and villages. According to Tannock (2007:7), a relaxed market-driven solution is to ignore the emigration of highly skilled people (HSP) and allow the brain drain from a different country to replace lost skills. The success of this strategy depends on various factors.

- Firstly, the availability of skills from the country of origin;
- Secondly, to attract only HSPs in sectorsin which a shortage of skills is experienced and
- Thirdly, the ability to regulate the number of foreign HSPs that come in order to protect the national HSPs from competition with foreigners.

Another variation of the market is to recruit within the target countries while developing immigration incentives. In Canada, foreign doctors who work in rural areas are given accelerated immigration status. The replacement and recruitment strategy ignored the emigration of local HSPs, but actively recruited HSPs from other countries to replace lost skills (Crush, 2004). Crush also identifies some advantages and disadvantages in labour migration at a micro level.

The positive impact, which is referred to as the stabilizing effect, lies in the fact that people with sought-after skills migrate primarily to increase their income and to access better employment opportunities. Studies conducted into economic impact indicated

that welfare has improved via the repatriation of funds. The negative impact (destabilizing effect), devastates developing countries that lose highly qualified people, as service delivery suffers from the lack of competent personnel.

According to Brettell and Hollifield (2015:2), scholars in all of the social sciences have turned their attention to the study of this extraordinary and complex phenomenon. Despite the volume of research in a host of academic fields, only rarely are there conversations across the disciplines about shared theoretical perspectives and analytical concepts, or about core assumptions that might differentiate one disciplinary approach from another.

The above mentioned author formulated the problem in succinct terms more than twenty years ago: Social scientists do not approach the study of immigration from a shared paradigm, but from a variety of competing theoretical viewpoints that are fragmented across disciplines, regions and ideologies. As a result, research on the subject tends to be narrow, often inefficient and characterized by duplication, miscommunication, reinvention and bickering about fundamentals and terminology. Only when researchers accept common theories, concepts, tools and standards, will knowledge begin to accumulate (Brettell & Hollifield, 2015:2).

- One broad division separates those social scientists who take a top-down, "macro" approach, focusing on immigration policy or market forces, from those whose approach is bottom-up, emphasizing the experiences of the individual migrant or the immigrant family,
- A second broad division, revealed by Gabaccia in her chapter in this volume, is among those whose approach is largely "presentist," and who acknowledge the past within a "then **and** now" framework, as well as those who look at change from a then **to** now framework. It may be too much to hope for a unified theory of migration— one that encompasses all possible motives for moving or all possible results of that movement— but unless we foster dialogue across disciplines, social scientists will be doomed to their narrow fields of inquiry and the danger of constantly reinventing the wheel will increase.

Most of the contributors adopt an eclectic approach to "theory," leaving ample room for positivist (hypothetical-deductive) and interpretive (inductive and idiographic)

approaches to the study of migration, as the former is more characteristic of economics and political science, while the latter is more common in history and anthropology (Weber, 1949 cited by Brettell & Hollifield,2015:3).

It is knowledge, creativity, innovation and entrepreneurship that developing countries need in order to progress and create employment (Du Toit, 2005:13).A policy response to such issues would require political rather than economic strategies to develop, educate, train, employ, retain, attract and integrate highly skilled human resources into the country, and to temporarily or permanently repatriate those who have already left (Du Toit, 2005:13). This study is based on the pillars of:

- The neoclassical perspective;
-  The new economics of labour migration theory and
- The structural theories.

According **to neoclassical migration theory**, the difference in wages between countries, those sending and those receiving motivated the migration process. In classical economics, differential income or wages is regarded as the primary factor that influences migration. It has been used to elaborate on the migration process that relates to skilled migrants (Thomas, 2008).

This view is summed up by Hicks (1932:76), who holds that "differences in net economic advantages are the main causes of migration". Several migrants prolong their safety in host countries because of the higher salaries that lure them. Within this context, return migration is seen as a result of failure. In other words, assuming that there are no differences in wages in sending and hosting countries, migrants will return if they fail to achieve the expected benefits of higher earnings abroad (Hicks, 1932:76).

While neoclassical migration theory does not clearly predict lower human capital characteristics among returning migrants, it does suggest that they are negatively selected in terms of their endowments that are required for success in the labour force. There is scattered evidence associated with neoclassical explanations of the causes and consequences of return migration.

The New Economics of Labour Migration theory (NELM), is unlike neoclassical theory, as the former defines return migration as being part of a pre-determined plan, which is designed by the migrants before departing from their homecountry. Normally, the original plan includes steps and phases to be followed after achieving the objectives of either obtaining qualifications or accumulating financial resources abroad, as these resources are expected to improve their life and status upon returning to their countries of origin.

In terms of employment outcomes, the NELM is likely to predict a greater probability of employment among returning migrants than non-migrants insofar as returning migrants may have acquired more skills and more marketable educational credentials while living abroad. Current research is increasingly inclined to support the NELM theory when analysing the socio-economic consequences of emigrants returning home. Several studies have continuously investigated whether the NELM theory can be used to elaborate on, and explain the contribution in terms of labour force outcomes after their return (Thomas, 2008).

A different perspective is offered by **structural theorists** in relation to the return migration process. For them, the political and socio-economic context of the sending countries is an important factor that affects the ability of returning migrants to use the new skills acquired abroad. For them, the decision to return is not influenced by the migrant's success or failure, as they do not believe in this association, preferring to focus on the returnee's ability to be productive after arriving.

They place emphasis on the "reality" of the home country's economy and stress the importance of local contextual, economic and development factors that are necessary for the migrant's integration into the local economy. In other word, structural theory postulates that the successful integration of the migrant and the subsequent application of skills depends on numerous factors specific to the individual countries to which they return (Thomas, 2008).

Analysis of the effect of education and training on the labour market is what economists refer to as human capital theory. Thus, education and training of human capital investment has received attention from labour economists in particular, as this theory emphasizes that expenditure on education increases marketable skills,

productivity and earnings. In explaining human capital theory, focus is on individual differences in years of schooling and duration of on-the-job training, as well as factors that cause some individuals to invest more in human capital than others (Moleke, 2005:1).

Over the past two centuries two schools of thought have battled for hegemony over the obtained capacities that were ordered as capital and the human beings themselves who are the capital. The human capital theory has been redesigned as a fundamental economic device, considered to be the most influential economic theory of the western world's education system, setting the parameters for government policies since the early 1960s, in certain instances seen as a key determinant of economic performance (Borta, 2007:19).Due to the lack of empirical and factual evidence, political bias causing data inaccuracy and data retention, the discourse relating to the brain drain phenomenon will remain influenced by certain case studies on the continent.

### 2.2.2 Traditional view of the brain drain phenomenon

Classical theoretical studies into brain drain hold that the migration of skilled workers benefits the destination countries and harms the country of origin. Bhagwati and Hamada (1974) indicate the potentially negative effect of the outflow of human capital on source countries. These predictions are at odds with the reality experienced by a number of sending countries that grew more rapidly than countries relatively more closed to them. Examples are Japan, Taiwan, Singapore and South Korea, as opposed to Bangladesh, Indonesia and India. Recent literature has targeted the potential of a beneficial brain gain (BG) instead of the negative effects of a brain drain (Di Maria & Stryszowski, 2009:307).

The principal proposition of studies such as those of Mountford (1997), Vidal (1998) and Beine et al. (2008), is that the possibility of emigration reinforces the incentives to accumulate the skills needed in the source country and it increases their stock of human capital as possibilities to work abroad increase (Di Maria & Stryszowski, 2009:307). Empirical studies in to the effects of skilled migration on source countries has supplied us with mixed results, as Beine et al. (2008) have shown that the net effect of the brain drain can be either positive or negative and that the BG hypothesis is not supported in every circumstance and only supported in a small number of

countries. The research indicates that every country wins and loses when taking the reality and practicality into account. The difference is to what extent, the quality of skills you acquire and the type of gains.

The traditional view is that migration is an "investment in human capital". The success of the strategy depends on the individual's agreements between countries of origin and host countries and conservation/restrictive policies that are aimed at delaying emigration. For the Dependence and the Modernization theories, "brain drain" is viewed as the cause of Africa's under-development. Consequently, for developing countries to catch up with developed countries, the need to train and accumulate human capital is essential for their development. While it benefits individuals, this "brain drain" is considered a loss to the investment that countries make to train workers with necessary skills (Borta, 2007:21).

### 2.2.3    Three generations of the brain drain controversy

This section presents the phase and the development process of the brain drain controversy and outlines the supportive theories that reinforce the negative effects of brain drain. Debates with regard to these theoretical assumptions that were postulated during a certain period are also presented and discussed. According to Ansah (2002:22-24), the first generation was from 1960 to 1968.

The above-mentioned author supports the **Nationalist Model,** which deals with restrictive and protective migration and labour policies that preserve local jobs for natives and restricts the migration of skilled labour. This begins from the premise that every nation should train and use its own human capital to protect its own economic development for social and political stability. However, the nationalist model criticises the selectiveness of recipient countries by filtering out skilled labour from source countries, assuming that it is expensive to produce skilled labour.

Ansah holds that in practice the internationalist model supports the right of out-migration more than the right of in-migration. This is used to criticise countries that restrict those who leave and less often to criticise countries that prevent those who arrive as an exercise of national sovereignty.Ansah (2002:22-24)proposed **the**

**Cosmopolitan Model** during the early stages of the brain drain debate in opposition to Johnson, Grubel and Scoot's **Nationalist Protectionist Model**.

This **Internationalist Model**, also referred to as the 'cosmopolitan model', distinguishes brain drain as a reciprocal of the positive exchange of human and fiscal capital, proving that skilled migration does benefit the world at large, including both origin and destination countries. Consequently, skilled workers' migration contributes to optimal distribution of capital, raising the level of welfare of the sending and the destination countries.

As an example of remittance, feedback effects and technological transfers co-produced in the destination country are spill-over effects when they comeback. Vinokur (2006:7-24), the proponent of this model, believes that skilled people in particular and humans in general, are attracted to factors that better reward their expectancy and correspond with their levels of training and education.

One of the losses of the **Internationalist Model** is the government loss in tax revenue, which would have been taxing high salaries but ends up taxing remittances. This model of international migration would not have been formulated if there were no differences. Government policy interventions affect migration through regulation to influence labour markets in both the source and destination countries.

The second generation of the controversy debate relating to brain drain began in the 70s and lasted into the 90s and invited negative comments. Borta (2007:26) holds that during this period the outflow of skilled people was perceived as being disruptive to the sending country. The perception is that sending the migrants home could lead to a syndrome of dependency and widen the economic gap between perceived poor countries and perceived rich countries. This gave rise to the emerging World Systems Theory as a second line of historical-structural theory that drew on the work of the dependency theorists. Through this theory it was hoped to clarify why modernization had such a wide-spread effect on the world.

The **Macro Economics of Migration:** views migration as a source of income and that poor nations have to increase finances at home, improve household diet and avoid credit barriers. In this model, international migration helps to compensate for the

absence or failure of certain types of markets in developing countries.

**Dual Labour Market Theory:** holds the view that developed economies' demand for unqualified workers is the principal factor influencing and shaping international migration. To avoid structural inflation and to maintain labour as a variable factor of production, employers seek low-wage migrant workers. In this model, international migration is based on demand.

In essence, the **World System Theory,** instead of perceiving migration as an outcome of the characteristics of individual countries' economies, sees it as resulting from the penetration of a capitalist economy into non-capitalist or pre-capitalist society. Brain drain is subsidized by wealthy nations that cover feeding and clothing costs and maintain the emigrants until they reach a productive age. Thus, the process is detrimental to the developing country, as it introduces two sets of alterations, namely the loss of fiscal revenue and the educational investments of the sending countries (Chimanikire, 2005:4-8).

The proponents of this theory and the new brain drain literature theorise that emigration creates entrepreneurs. However, the proponents of the traditional view of brain drain literature have come to the conclusion that it is empirically impossible to benefit from the developed and developing (Borta, 2007:30).

From the 1990s a third generation of brain drain controversy began to emerge, regardless of the traditional views of previous studies refuting and disputing the information presented as to the results of migration. The new literature highlights that the outflow of skilled individuals is an important input to new business. Consequently, there are two growth effects:

- Firstly, migration prospects foster investments and education in the home country due to higher returns abroad, which is an ex-ante "brain effect'
- Secondly, it is an ex-post "brain effect "resulting from the migration flows themselves when brain gain emerges and the first effect dominates (Borta, 2007:31).

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The **Neo-liberal theory:** emphasizes human capital as being significant for a nation's development so that their reforms are seen to be in line with globalisation principles that countries are adopting in order to become more integrated into the international economy. The negative effects of the brain drain are emphasised in the neo-liberal-classical growth literature, mainly in its endogenous version. (Borta, 2007:32).

The same author holds that this is the theoretical basis for the new **Knowledge Economy Doctrine**. In order for it to develop a critical accumulation of human capital, it is necessary that the state promotes and restores economic growth based on the premise that the migration of the brightest brains has a negative impact on its socio-economic development, as it increases the already high stock of the destination country and reduces that of the source country, deviating from the growth path and leading to a poverty trap.

There is no single, well-developed theory that covers global migration. Although amongst the several models that have been formulated, many are attempting to elaborate on, and explain, the reason for global migration. Three major models can be identified, namely: The neoclassical economics, growth theory and knowledge economy doctrine.

**Neoclassical economics:** this macro theory approach,(arguably the body of knowledge preferred by the World Bank), views geographic differences in the supply and demand as the major factors that influence individual migration decisions after calculating the cost-benefit ratio that indicates a positive net return on movement. In this approach, human capital characteristics that raise the potential benefits of migration and individual social, or technological factors that lower costs, will lead to increased migration.

The suggestion is that a **nationalist protectionist policy** is necessary from a source country or compensation from the destination country. Another solution for brain drain is to accumulate human capital at a rate that is high enough to maintain or increase its stock, notwithstanding emigration, through higher levels of public expenditure for education. In one respect brain drain reduces human capital, which is a loss to welfare for the remaining population because of the loss of scarce skills.

**Growth Theory:** This model indicates that the reduction in the average level of human capital has slow and negative effects on economic growth and implies a different growth trajectory between rich and poor countries. On the other hand, receiving countries benefit from increased knowledge gains from highly skilled immigrants as positive technological externalities. Recent debate, mainly the brain gain hypothesis, overturns this conclusion and deduces that through a re-migration of elites, the human capital stock increases as does the potential growth of the country (Borta, 2007:29). This does not mean that human capital stock is increased from the brain drain process, but it means that an additional qualitative gain is acquired through knowledge that is gained from living in an industrialized country.

The new **Endogenous Growth Theory**, in contrast to the first line of Endogenous Growth Theory, indicates that there is a beneficial brain gain for sending countries. Here human capital accumulation is approached, not only as an individual, but also as a social activity, because of the positive spill-over that it generates. The focal point that supports the convergence hypothesis of neoclassical theory is decreasing the marginal product of capital. The traditional view proponents debate the assumptions of new endogenous growth theory. Although the endogenous theory is a step forward in recognizing the importance of human capital, the view that it offers is still limited.

### 2.2.4   Brain Gain/ Brain Waste hypothesis

Gwaradzimba and Shumba (2010:211) indicate that as the debate regarding the migration of highly skilled professional's rages on, one central question that has caused controversy is whether brain drain has a positive or negative impact on developing countries. Migration studies that have been conducted in various parts of the world to assess the impact of intellectual migration, have produced contradictory results (Ammassari & Black, 2001:6).

Current literature on the brain drain asserts that migration brings positive feedback for source countries. Several authors, such as Vidal (1998), Mountford (1999) and Stark and Wang (2002), have posited that migration may translate into future educational investment in source countries and increase the prospect of high salaries turning from brain drain into a gain (Docquier, Faye, Pestieau, 2008:269).

What would happen to developing countries if emigration is reduced, and when will this occur? If anything, individuals are exploring more creative ways to leave and settle in developed countries, if not permanently, at least for a decade or two.

The basic idea of the "brain gain" hypothesis suggests that in the long run the migration of highly skilled individuals may yield positive results. The new hypothesis attempts to show how brain drain can be transformed into a long-term brain gain for the developing country (Borta, 2007:22).

Following the "brain gain" hypothesis, every "brain drain" is a potential brain gain". However, the "brain drain" population of developing countries can be their brain gain and they should assess the potential of the developing countries to motivate and induce its Diaspora to return home and/or to establish transnational networks (Borta, 2007:22).

The brain gain hypothesis has everything to do with interaction between skilled migration and education policies. Stark and Wang (2002) studied this interaction, which demonstrated that by allowing a controlled proportion of skilled individuals to immigrate to a developed country, they can stimulate those who remained to continue their schooling in order to climb in term of social status and by so doing getting them to a more desirable level of human capital without subsidies (Docquier,Faye and Pestieau,2008:269).

Literature that deals with the brain gain (BG) normally assumes that all human capital is equally useful to the sending country, regardless of its stage of development. From a recent survey of literature that covers the brain drain, (Commanderet al., 2004), South Korea and Japan experienced high levels of skilled emigration in recent decades: over 9% of Korean skilled workers left the country in 1990. In the same year Taiwan and Singapore had higher rates of 15.2% and 24.8% respectively, while India had 3.9%, Indonesia 3.9% and Bangladesh 2.1%, suffered much smaller outflows. Japan grew faster than the countries in the latter group (Di Maria & Stryszowski, 2009:307).

Empirical evidenceobtained from various studies that were conducted in southern Europe indicate that Third-World academics who migrate to other countries,

particularly First-World countries, gain little as they mainly engage in unskilled work. These studies found that only a minority of migrants had gained new skills while working abroad. The majority did not learn anything new because they only performed unskilled work. Similar studies on migration from Africa to Europe and the Middle East also identified the down-skilling of migrants as a cause for concern. Another point that was raised is that among those migrants who are able to acquire new technical or industrial skills and experiences, few may be able to apply them in practice back home owing to a lack of the infrastructure that is required to make effective use of their new skills (Ammassari & Black, 2001).

The research also reports that migrants were, to a large extent, in low-grade positions in the industry and worked mainly on mass-production lines. Their frustration hampered their learning. These migrants have learned little beyond, for example, how to empty dustbins in Munich and turn a screw at Renault's assembly plant (Ammassari & Black, 2001:28). In a study that was conducted by Todisco (2002), it was established that in advanced countries immigrant workers are made to do unhealthy, dangerous and exhausting jobs that are essential to the economic system, but normally shunned by locals. The local workers are only too willing to delegate these tasks to the new arrivals, especially if the immigrants are impoverished and obliged to accept. In First-World countries, the relative number of old people is increasing and the poor health that comes with old age has obliged many to seek permanent assistance.

The younger generations in those countries have found it more convenient to leave the demanding task of nursing and caring for old people to immigrants. In numerous factories, labour-intensive and dangerous jobs such as operating blast furnaces in steelworks are given to immigrants. The same is true for construction work, agriculture and animal husbandry (Todisco et al., 2003). Skilled job-seeking Africans in North America and Europe are employed in the worst paid, unskilled jobs that have no relevance to their academic achievements.

These professionals soon lose their competencies and are unable to make commensurate contributions to the development of either their country or the host country's development efforts, which ultimately results in "brain waste". Similarly, studies that were conducted in Zimbabwe revealed that the majority of professionals who leave the country for the Diaspora are forced to abandon their professions for

menial, difficult and often dangerous jobs that promote the well-being of the host country and its people until they are integrated.

There are reports that highly educated men and women from Zimbabwe work as child minders or look after the sick and the elderly in old people's homes in the North, while others work as waitrons and general hands, and still others turn to prostitution, pornography and homosexuality to earn foreign currency. Those who fail to make it in the Diaspora are said to live like vagabonds on the streets (Herald; SIRDC, 2003cited by Gwaradzimba & Shumba, 2010:210). Advanced related literature presents us with two main reasons to explain students' migration between countries or regions:

- Firstly, from a human capital perspective, as migration is considered an investment, the decision to leave the country is influenced by factors such as better job opportunities and/or to increase expected future income. Family members encourage this.
- Secondly, migration can also be perceived as a matter of supply and demand or choice in order to satisfy needs. In this case, people move for non-pecuniary reasons (Michel, Romain & Ragot, 2014:46).

Students do not only take into account the context, perceived gain, quality of education and reputation of the university or country where they acquired their qualification and the human capital gain for the source country. In order to explain the global movement of students Rosenzweig (2006) proposed wo models. In the first, migration occurs due to a lack of good facilities in the home country, regardless of the level of education returns referred to as the **school-constrained model**. In this case, the main reason for the migration is to attain or acquire new skills and return to enjoy the benefits of the investment in education. The second model, migrating legally on a student visa, could possibly be a way to enter and remain to escape the low quality of education in the sending country. Higher income is the main determinant of student migrations in this so-called migration model. In terms of predicting the implications, the two models are competing (Gwaradzimba & Shumba, 2010:210).

## 2.2.5   BRAIN DRAIN OR BRAIN GAIN: A DEBATE

According to Joshua, Olanrewaju and Ebiri (2014:769) citingEasterly and Nyarko (2008), brain drain is perceived as an international issue, but varying in every country. Africa is the hardest hit, as this problem can be traced back to the 17th century during colonialism, when some Africans began to travel abroad to acquire Western education.

Although there is inconsistency in the existing data, available statistics indicate that the continent is losing people that it needs most for technological, social, economic and scientific progress (Idahosa & Akpomera, 2012). One third of Africa's estimated 20,000 doctors, engineers, university lecturers and other professionals have left the continent annually since 1990 (Joshua, Olanrewaju & Ebiri, and 2014:769).

According to Idahosa and Akpomera (2012:20), by mid-2000, there were more Malawian medical doctors who practiced in Manchester in the United Kingdom than in the whole of Malawi, and of 600 doctors only 50 who trained in Zambia are still practicing in that country. In 1999 Ghana certified 320 new nursing personnel and lost the same number to emigration.

Joshua, Olanrewaju and Ebiri (2014:769) postulate that more than 300,000 highly qualified Africans live in the Diaspora, among whom no fewer than 30, 000 have PhDs. Africa still spends US$4 billion annually to provide employment for about 100,000 Westerners to perform technical assistance duties (Marindi, 2006). Most African nation spends large sums of money on the education system that ends up contributing to the development of already rich countries with little return on their investments for Africans.

Joshua, Olanrewaju and Ebiri (2014:769) citing Chacha (2007) hold that leadership problems, coupled with maladministration and greed is the cause of brain drain in Africa and this has a detrimental effect on capacity building of the countries' human capital. Several authors, including the researcher disagree, citing humans' native impulse to seek better opportunities in life as a motive for many to depart their native countries in search of perceived economic and physical security and other luxuries and necessities.

Africans who leave Africa are usually not happy to leave, as in most instances African countries would rather pay expatriates competitive salaries for the same jobs that locals could perform (Idahosa &Akpomera, 2012:1-2). It is clear from the above that there is a linkage between leadership and capacity building in Africa and brain drain.

Two broad groups are dividing opinions regarding the winners and losses, some advocate the positive returns from brain drain, while others focus on the negative impact, referring to it asit the new slave trade. For instance, Adepoju (2003) believes that this issue has been exaggerated and over-dramatized and not critically investigated as presented. Scholars such as Mountford (1997), Docquier & Rapoport (2004), Manning (2007), and Clemens (2007), among others, have presented the gains of brain drain to the source countries. Hanson (2008) holds that without migration African renaissance and independence would have not been possible to achieve and without the contributions of Africa's leaders, who at the time resided outside the continent.

Easterly and Nyarko (2008) agreed with the above statement and contended that was it not for the early 20$^{th}$ century migration wave that facilitated the escape of many of the now founding fathers of African liberation, such as Hastings Kamuzo Banda, Jomo Kenyata, Mbeki and several other African leaders in Africa who met and strategized in the UK and USA, and then returned to fight for independence, there would not be independence.

Azikiwe, the Nigerian independence leader, studied at Lincoln University in Pennsylvania and was fundamental in bringing Kwame Nkrumah, Ghana's independence leader, to study at the same university. From this it is easy to conclude that without migration, independence may not have occurred until much later. These authors studied the losses and benefits of brain drain, but from their perspective, the gains outweigh the negative effects. Losses are enumerated as follows:

- In the long term skills are needed for the home country and skilled workers should therefore stay at home;
- The human capital of the migrants may have had a positive effect on institutions or the political leadership of the home society, had they stayed;

- Brain drain also separates families causing great emotional suffering on both the migrants and those left behind. However, they listed eight(8) benefits that are accruable from brain drain that are listed below:

1. As most migration is voluntary, migrants go overseas after an evaluation of the pros and cons, allowing them to make an informed choice of destination;
2. Those family members left behind gain indirect utility from the greater well-being of the migrants;
3. The migrants may send money to improve the quality of life of families and boost their economic prospects;
4. The home country population may have stronger incentives to invest in human capital if they have an opportunity to migrate;
5. Migration may have a positive effect on local politics and international institutions;
6. Due to the brain circulation phenomenon, migrants may return home, bringing new knowledge and sharing first world technology;
7. The potential creation of trading networks may increase the source of foreign currency for the home country and simultaneously exports to the destination country and
8. Enhance individual freedom by providing individuals opportunities to migrate.

If brain drain is that beneficial, why is it that the emigration rate of the skilled workers and professionals from developed countries like the United States of America and the United Kingdom is low? When human resources move from developed countries to other countries, especially to developing nations, they work at companies from their home countries operating in the developing countries and with far greater benefits than the host citizens (Joshua, Olanrewaju &Ebiri, 2014:286).

## 2.3 GENERAL BACKGROUND OF BRAIN DRAIN AND SKILLS MIGRATION DEFINED IN AN INTERNATIONAL CONTEXT

Brain drain is an emotional subject and one that comes up every time when discussing Africa's underdevelopment, or Africa's role in the Diaspora. For a better understanding of the subject, it is important to have a broad definition of brain drain and skills

migration. There is a need to understand brain drain and the migration of skills, where and when it began, its causes and effects.

According to Lundy (2006:3-7), the term brain drain was first coined in the 1960s by the British Royal Society to define the loss of skilled scientists from the UK to Canada and the USA, while today it is mainly used to describe the migration of professionals from the South to the North. In support of Lundy (2006:3-7), Nesbitt (2003:4-5) and Rapoport (2002)hold that during the 1950s the same term, brain drain, gained currency when referring to the migration of Canadian, German and British scientists to the USA. Although this skills transfer is not a new problem, it has accelerated over the last few decades. Brain drain discussions have been largely based on human capital theory.

Johnson (2006:17) mentions that brain drain has been around for years and has literally created cities.

Johnson defines brain drain as the migration of young people from their homes- often to metropolitan cities or areas that offer better jobs, high paying salaries, and a richness of arts and culture.

According to Nesbitt (2003:4) citing Careny (2001) and Wood (1974), the migration of scarce-skilled Africans to Europe and to the Americas has an extensive history. It is easily traced back to the slave trade when Africans were forcefully transferring technologies of rice production and conservation, construction devices, fire paper production and water control for irrigation to the masters in the sugar cane plantations in the United States of America.

The researcher began ruminating about what the Bible says about migration with a view to highlight comparative aspects in our own times. For example, during the recent xenophobic attacks in South Africa, people used the Bible to respond to the attacks. Leviticus (19:33-34) was posted on social media, to which various people responded 'amen'or 'yes'.Leviticus 19 verses 33 to 34 says, 'when a stranger resides with you in your land, you shall not do him wrong. The stranger who resides with you shall be to you as the native among you, and you shall love him as yourself, for you were aliens in the land of Egypt. This is the basis of the researcher's conviction that migration

existed during Biblical times, although we differ concerning the extent to which the ancient people emigrated (Dube, 2016:64).

Migration has always been a problem and to side-line migration while talking about people, whether in the past or present, is to minimize the evident truth that humans migrated from the time that the *Anthropos* discovered the upright posture. Was the ancient world immune to our challenges of migration? Using the migration perspective, I intend to highlight the pull and push factors within the story of Abraham and Jesus. Abraham is commonly dubbed a patriarch and not a migrant. Failure to read Abraham through a migration lens indicates the handicap or limitation of theories or perspectives that limits the types of questions raised (Dube, 2016:65).

Philosophers such as Kierkegaard (2005:18) discuss Abraham from the perspective of ethics and faith. Kierkegaard holds that the story of Abraham illustrates the hierarchy of social norms, in that by leaving his family and his willingness to kill his only son, Abraham obeyed the ontological or higher command. Arguably, the story of Abraham is analogical to the experiences of immigrants. Like an immigrant, Abraham was primarily a nomad (Albright, 1935:11), meaning that he migrated from one geographic location to the next in search of pasture and food. Food and sustenance are the primary motivation for migrants and these might be seen as pull or push factors. As a nomad, Abraham left his home to take up a Diaspora status in Palestine (Habel, 1995:116-117), migrating from Mesopotamia and settling in Canaan.

The process of leaving one's locale to reside in another region, from the perspective of migration, cannot be considered a leap of faith. This analogy from Abraham can be compared to migrants who risk death at sea and on land to cross to Europe. Migrants also leave their families in the process, exposing them to attacks by robbers and diseases (Dube, 2016:67).

Careny (2001:170 -171) holds that the colonialist was aware of the Africans' special knowledge of rice cultivation and a number of other skills, which presented opportunities for slaves to negotiate the terms of their bondage. Brain drain is not a new phenomenon, as it existed during and after Roman times, and the practice of slavery was common in England. They expanded their slave system, sometimes in league with Norse traders and only discontinued the practice when William of

Normandy conquered England in 1066.

According to Wong and Yip (1999:1), the international migration of skilled professionals has long been an important topic for economists and governments, especially in countries that lose workers. They are concerned about adverse effects on economic growth, education and training, income redistribution and a quality welfare system, as brain drain is the out-flow of one of the scarcest resources, namely human capital.

According to Gigaba (2006), there are approximately 200 million migrants in the world (equal to Brazil's population); and 16.3 million migrants in Africa; 35 million in the United States and 5 million in Australia. Immigrants constitute about 18.7% of Australia's population. The Chinese Diaspora is estimated at 35 million, while Indians amount to 20 million and Filipinos 7 million. Edokat (2000:1) alludes that the international migration of talented people is as old as the early history of human beings. Such movements had always been justified by economic, social and political exigencies, depending on the situation and the people involved.

These reasons still explain international movements among talented people today. While such movements did not attract a lot of attention in the past, it became a problem especially from the 1960s, when the trend became lopsided with Western Europe and North America being besieged by talented people from less developed countries (LDCs). According to Todaro (1985:353), the international brain drain, as it later became known, deserves mention, not only because of its effect on the rate and structure of LDCs' economic growth, but also because of its impact on the style and approach of the Third World educational system.

Globalisation has introduced numerous opportunities for skilled professionals and technicians to seek jobs anywhere in the world. Companies and countries that need skilled labour can now recruit from anywhere in the world (Sankore, 2005:6).

Economic globalisation, a lack of development and political stability, industrialized nations' policies, linguistics and historical ties are factors that account for Third World immigration to developed countries. In general, most African immigrants respond to push and pull factors (Chimanikire, 2005:2).

Odumasi-Ashanti (2003:4) claims that 70,000 highly qualified Africans leave their countries every year. Europe's population is ageing and developed countries have become increasingly dependent on migration to attract workers to fill vacancies. Chimanikire (2005:11) holds that the brain drain phenomenon has brought harmful effects to several countries, as some of their best talents have emigrated. Some of the consequences have been lower rates of economic growth, less productive educational investments, and poorer health care. There has also been a loss of actual and potential innovators who might have led the way to modernization, as they migrated to educational systems and working environments that better supported their innovative and creative abilities.

According to Mutume (2003:3), the continued opening of borders permitting the movement of capital goods and services also led tote free movement of people (Smith & Favell, 2006:1). Fourie (2006:6) holds that skill migration tends to be viewed from the perspective of a return to education and as a permanent loss of human capital to the countries of origin. Brain drain and skill migration have been accused of dividing the world into the human resource rich and the human resource poor and has been seen as a threat to international integration (Fourie, 2006:6 citing Benchofer, 1969; Oldham, 1969;CIMT, 1970;Grubel & Scott, 1977).

### 2.3.1    Brain drain vs Brain waste

According to Pires (2015:3-5), the traditional view of brain drain is that international migration leads developing countries to lose skilled workers to developed countries owing to higher wages in the latter. When skilled workers migrate, they face the brain waste risk and can end up employed as unskilled labourers.  All the literature on brain drain and brain gain is developed upon the premise that migrants base their education decisions on future earnings expectations in the destination market versus the domestic market.

Recent contributions theorise that the brain drain story does not necessarily need to hold. According to Pires (2015:5) citing Docquier and Rapoport (2007), in a developing economy closed to international migration, the returns to schooling are low, which discourages investment in education. However, if an individual is able to migrate to a

high wage, developed country, where the returns to schooling are higher, he/she might have an extra incentive to acquire education relative to autarchy.

According to Docquier and Rapoport (2012:8), the brain gain effect that can arise through migration can be strengthened or weakened with the introduction of occupational choices, network effects (Kanbur and Rapoport, 2005), fertility, education subsidies (Stark and Wang, 2002) and brain waste (Schiff, 2005). This section investigates the relationship between brain drain and brain waste.

According to Docquier and Rapoport (2012:35), brain waste describes a situation that involves skills downgrading, where an individual does a job that requires a skill level that is lower than the one that he/she has acquired. In other words, brain waste arises when a skilled individual incurs the costs of becoming educated, but does not reap the benefits of human capital acquisition, hence a skilled migrant ends up working as an unskilled labourer. With brain waste, skilled migrants run the risk of not accessing the rewards that accompany human capital in the destination country. If migrants internalize this brain waste risk, the education incentives that arise with international migration can be reduced thereby also decreasing the chances of brain gain.

Despite the overwhelming evidence of low international transferability of skills, Gibson and McKenzie (2011:65) recently held that, at least in the US, brain waste does not affect the majority of skilled migrants. They defend this position as 79 percent of working migrants from developing countries who have a Bachelors' degree or more, work-in occupations in the United States in which the majority of workers have post-secondary education, as do 90 percent of those who have a Master's degree or more, and 96 percent of those with a Ph.D. Hence, this evidence does not compromise the argument on the links between brain waste and brain drain, which is believed for a number of reasons, and that goes beyond the fact that Gibson and McKenzie's (2011) evidence is only relevant to the US.

There is a need to note the following:

- Firstly, brain waste and the international transferability of skills have been the subject of policy initiatives in both sender and receiver countries of migration. For instance, sender countries increasingly focus on the quality of their

education systems in order to make skills more transferable internationally for nationals (Docquier and Rapoport, 2012). This has especially been the case in Latin America and Asia, where skilled emigration is substantial. In turn, receiver countries use more and more resources to evaluate the quality of foreign education systems in order to have a more effective skills transferability policy for international immigrants (Pires, 2015:6).

- Secondly, the tradition in economics literature is to think about expected (and not realized), returns from education and migration. Beginning with Becker (1960), economists view education as an investment decision based on the expected income for different skilled groups. Since Sjaastad (1962), migration has been modelled as an investment decision where an individual migrates if the expected discounted difference in the stream of expected income between the new and the old location exceeds moving costs. This discussion highlights the importance of distinguishing between the subjective (not real) probabilities of being employed as an unskilled labourer at the destination as a disincentive for investment in education for potential migrants.

- Thirdly, for a developing country, human capital externalities do not merely come from individuals who have a university education. The empirical literature on economic growth indicates that in developing countries the human capital externalities can be important even for lower levels of education, such as primary school (Barro, 1997). What this tells us is that the brain waste theory is not limited to higher levels of education such as university. Accordingly, if the brain waste risk only discourages education for lower schooling levels, migration can still have negative growth effects in the origin migration country.

The relevance of lower levels of education for source countries is recognized by a series of papers on the effects of migration on schooling choices. For instance, de Brauw and Giles (2006) show a negative relationship between migration prospects and high school enrollment in a panel of household data from China. They posit that this results from potentially low returns to high school education among Chinese migrants from rural areas. The reason is that for rural migrants, legal temporary residence status might not confer the same set of benefits typically associated with permanent registration as a city resident (Pires, 2015:8).

In turn, Kandel and Kao (2001) found that children in Mexican households that have higher numbers of family members in the US as migrants are associated with lower aspirations to attend university. They defend their attitude by claiming that Mexican migrant communities understand that "the US job market does not reward education or higher education acquired in Mexico beyond the junior or senior high school levels." McKenzie and Rapoport (2011) hold that living in a migrant household lowers the probability of completing high school by 13 percent for males. This is attributed to the fact that schooling decisions depend on the expectation of migration in the future and previous household migration experience. Given that most Mexican migrants work in low skilled jobs, the incentives to become further educated are reduced.

- Fourthly, some groups of people are subject to higher levels of brain waste. This is especially the case for migrants from certain regions such as Africa, Eastern Europe and Latin America.
- Finally, and because of the above, the evidence suggests that brain waste affects the self-selection of skilled migrants. Brain waste is not only a concern for individuals and source countries, but also for destination countries. For instance, Wright and Maxim (1993) indicate that in Canada, the self-selection of skilled workers has been affected not only by changes in the country-of-origin mix (from developed to developing countries), but also by an imperfect international transferability of skills (Pires, 2015:8).

In the second stage of emigration, an individual only migrates if the gains from migration are larger than the costs, as stated in the expectancy theory. Given that wages are higher at the destination, the source country can lose skilled workers to migration.

In this set-up, the researcher considers how brain waste risks affect the incentive to acquire education for individuals from less developed countries, who plan to migrate temporarily for work purposes to a more developed, higher-wage country. The researcher holds that for brain waste to have an impact on education and migration choices, it does not need to be expressed in terms of the number of people who are affected by it. What is essential is that potential migrants expect that the brain waste risk can affect their returns from migration and education (Pires, 2015:12).

Pires (2015:12) continues by stating that the available literature on brain drain and brain gain is developed upon the premise that migrants base their education decisions on future earnings expectations in the destination migration market *versus* the domestic market. Brain drain literature, however, presents three mechanisms that can make it possible for a developing country to achieve brain gain: return migration; remittances and uncertain migration decisions.

The possibility of brain gain is increased: if the flow of skilled worker returnees is sufficiently high (return migration); if remittances reduce liquidity constraints in the education of the younger (remittances); or if multiple individuals that have invested in human capital do not migrate because, for example, they do not manage to obtain a legal visa (uncertain migration). Only one channel for brain gain is chosen in the literature, namely temporary migration, as, according to the empirical evidence, this is the more relevant channel for positive brain drain (Mayr and Peri, 2008).

Mayr and Peri (2008) indicate that one fourth of all migrants return to the origin country. In the case of the highly educated, a greater proportion of migrants return to their respective home countries. The effects of brain waste on brain drain as a result of low international transferability of skills indicate that this type of brain waste:

1. Reduces education incentives;
2.  Weakens chances of positive self-selection and
3. Decreases the possibility of brain gain. In addition, the effectiveness of education policies that subsidize students is reduced in the presence of brain waste (Pires, 2015:3).

According to Breinbauer (2010:2), from 1960 to 2000 brain migration in his country, has been mainly characterized by "brain drain" from the EU in the USA. The next stage of brain migration, known as brain overproduction in donor-states, is referred to as" brain overflow". This "brain circulation" between donor- states and recipient-states began in the 1990s and is famous for the end of the Cold War end and demolishing the Iron Curtain. After that period, a new stage of re-immigration or homeland return occurred- "brain regain". "Brain circulation" is mainly characterized by brain migration mobility, which is determined by the global trend of increased migration in the world.

"Transnational mobility" is the newest and latest stage in brain migration policy, when living in both the donor-state and recipient-state becomes equally comfortable.
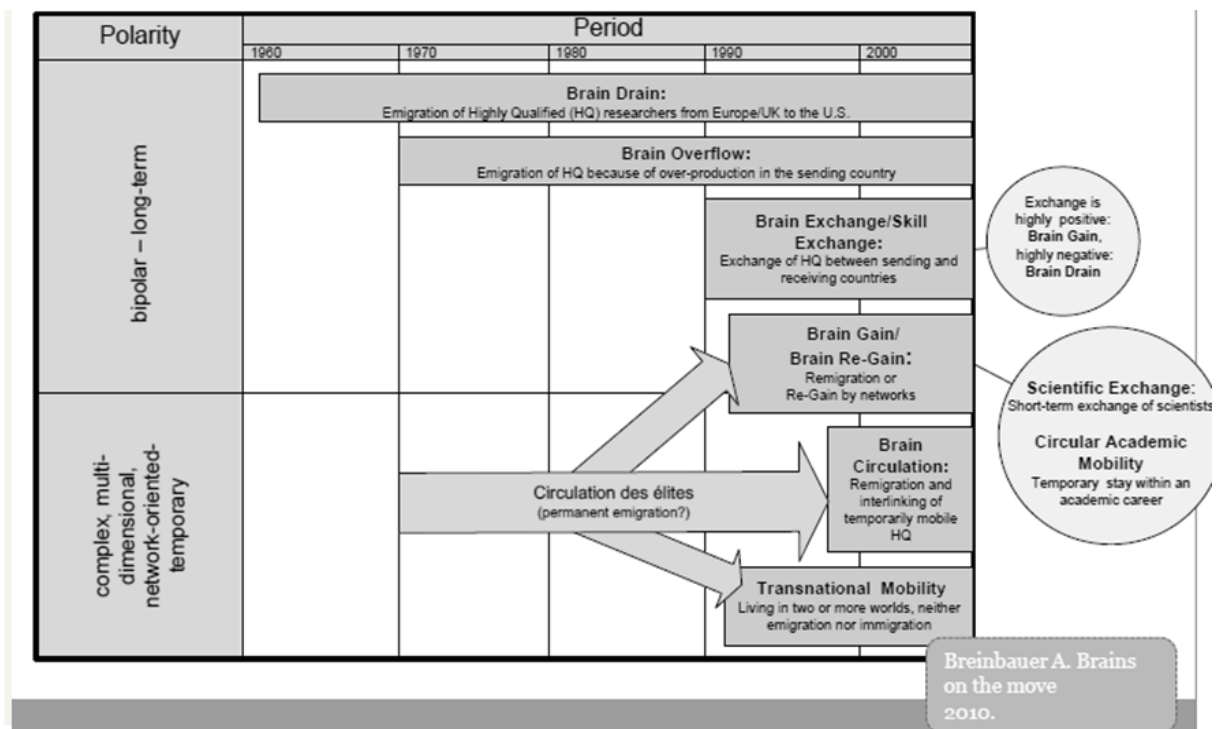


**Source:** Breinbauer, 2010

**Figure 2.1: Brain Migration model**

Appleyard (2002) indicates the brain migration paradigm shift. According to his theory these changes are connected not only with geographical, professional and time issues but mainly depend on state brain migration policy. This author cites the following models of brain migration regulation by a state:

- Active regulation concept (state controls brain migration with different instruments, namely legal, administrative and economic). This includes migrants' returning programs popular in the EU countries, such as the Blue Card system, Marie Curie Foundation scholarships, Erasmus Mundus programmes, the EU road map based on qualifications and mobility, different PhD scholarships, etc.;
- non-interference concept (the state can not influence brain migration);
- future commitment concept (brain migration problems might be resolved only at international level and within a specified period of time).

According to Gigaba (2006:1), every country is now either a point of origin, transit or destination for migrants; most often all three at the same time. Being a globalised central dimension, international migration is facilitated by improved transportation and communication and is stimulated by large economic and social inequalities. The frequency and speed with which people can move between countries means that people can simultaneously maintain social, political and economic ties in two or more countries. From a broader perspective, brain drain and brain migration may be of the following types:

1. Brain over-flow;
2. Brain export;
3. Brain exchange;
4. Brain drain.

**(A) Brain over-flow**

Due to the low rate of brain utilization in the host country or over-production, some of the brains may remain unabsorbed, while at the same time there may be a surplus due toan effective demand, or an excess supply at home. This brain spill-over may become absorbed into the international market. This type of brain migration is referred to as brain overflow and is implicit in the analysis of the Internationalist Model.

As a result of poor planning and poor education in various developing nations, the needs of the country are not taken into account and this is considered to be the reason that these countries produce more than they need in some instances and they end up with unemployed, skilled labour. As an example, in 1965 India produced 75 000 engineers for whom there were no employment opportunities as well as many more economists and statisticians than it could employ.

In Latin America, only 25% of the 600 000 professionals with university degrees are employed (UNITAR, 1971). In Nigeria, the situation is no different to that of India, as only 63% of the total number of graduates in the country are employed .Are social services In fact, they trained more than the country needed, causing now the brain overflow, and this scenario is not unique to the mentioned countries it can be seen in several Less Developed countries. Surplus or unutilised brainpower may result from:

- Exceeding production;
- Too few jobs being created;
- Lack of suitable jobs where skills may be optimally utilized;
- Lack of experience/competence of the existing brain power for the jobs available and excellent training.

Surplus brainpower is a result of excessive production of brains, interpreted as in both relative and absolute terms. In quantitative terms, the jobs created may be too sophisticated for the existing skills, in other words the skills produced do not respond to the country's needs, leading to the non-utilization of the available skills in a given economy.

## (B) Brain exports

Brain migration may as well be brain exports by the source country. The country benefits by continuously receiving remittances over a period of years in exchange for brains. The payment may be obtained over several years, as long as the skilled individual is in a host country with relatives still in the source country and remittance is in the form of taxes, technology transfer or it a once-off lump sum exit tax.

It is not possible or realistic to put a price on lost brains as there are obvious limitations in that it is difficult to calculate the social costs. The possible market price of brainpower does not often reflect its real and public costs. In the case of brain exports, the exchange price must be equal to the public and private costs of the brain. If the rate of return is sufficient to cover the domestic opportunity costs of the transferred brain, it may be seen as a case of brain export.

For, instance, it will be in the country's best interest to produce man power or skills to supply to countries over whom they have a comparative and competitive advantage. By exporting brainpower as product, it will benefit both trading partners. In countries such as Cuba and the Philippines, people are intentionally educated for export purposes, as their own economies do not have the capacity to retain and absorb more human capital. As payment for the imports the recipient governments establish a fixed percentage from the immigrant's income tax and this is returned to the country of

origin. A number of countries send brainpower abroad in order to receive remittances (UNITAR, 1970).

## (C) Brain exchange

According to Gaillard and Gaillard(2015:272)**,** today the word 'circulation' does not only qualify the outflow and inward mobility between host and home countries but also between all countries without reference to nationalities. 'Circulation' presently refers to global mobility. It means circulation between different countries where highly qualified people may be needed and find attractive positions, irrespective of their nationality (see South Korean and Indian policies regarding this issue). This circulation or 'mobility' shapes a win-win situation, where all countries (sending and receiving), may benefit from a common pool of highly skilled human resources wherever they are located.

The concept of circulation in the field of highly qualified migration has also changed over time as it is not really new. The 1997 STS special issue highlighted the concepts and terms of 'mobility', 'exchange' and 'circulation'. The use of 'circulation' in the literature illustrated the two main trends, which were presented earlier.

- First is the expected return of expatriated students and professionals with increased knowledge, skills and know-how who are closely associated with 'return policies'.
- Second is the possible reservoir of expertise encompassed by the Diasporas abroad that could be of interest to the home countries (Gaillard & Gaillard, 2015:272).

The reasons for this successful evolution of having turned brain drain into brain gain and now brain (and knowledge) into circulation, can to be found in a combination of polices and incentive programmes.

Brain migration may be in the form of circulation. Brain exchange or circulation is a temporary mechanism that compensates for the loss of skilled individuals with corresponding brain gain. For the purpose of mutual benefits in terms of knowledge, expertise and training. This kind of brain migration can also be referred to as brain exchange. Brain gain is the mirror image of brain drain. For instance, when a highly

skilled South African emigrates to Australia, South Africa experiences brain drain and Australia experiences brain gain. It can be done individually and spontaneously and also by countries and institutions agreeing to this exchange, as per the agreements concluded between Cuba and some African countries.

Two kinds of brain drain exist in postcolonial Africa. The first is **'indirect'** brain drain, which has a direct impact. It requires one to use local human resources to mine minerals and export them to previous colonial masters for next to nothing, which amounts to economic exploitation.

The other is **'direct** 'brain drain, which occurs by way of trained African experts who are poached to work in the West where talented Africans are required and where better salary packages are offered, better conditions of employment, a predictable and growing economy, safety and security, quality healthcare and education. To ensure that the trend continues into the future, African states are denied technical knowledge.

Similar to the brain drain, the brain gain process can be temporary in the case where a South African emigrates to Australia and then returns home permanently after a period of time. The term brain drain is a popular way to explain the migration of skilled people across the globe but skills migration as a phenomenon, is much more complex to define as stated above, and includes various migratory forces and phases (brain drain, brain gain, brain circulation, revolving door migration principle and brain exchange) that influence one another (Fourie, 2006:7-8). The table below indicates a comparison of some of the differences between brain drain and brain circulation.

**Table 2.1: A comparison of the characteristics of brain drain vs brain circulation**

| Brain circulation | Brain drain | Characteristic |
|---|---|---|
| Controlling agency | Government | Organisation (s) |
| System of mobility | Closed | Open |
| Policy goal | Controlling people | Optimizing task |
| Direction of movement | One way | Multiple direction |
| Duration | Permanent | Short term |

**Source (Cao, 1996:275)**

According to Fourie (2006:7-8), skill migration includes brain circulation, which is when professionals leave their home country to work and live in another country but return to their home country permanently at some point. A revolving door principle is applied in the case where the person does not return permanently, but does not leave permanently either, as he/she leaves and returns.

The perception is that brain drain only benefits the receiving country but in reality brain drain benefits both countries. The receiving country benefits from the expatriate when he/she returns to his/her country of origin through the remittance that is used back home to uplift the lives of those who stayed behind, which is knowledge. Although not all brain drain is caused by immigration or emigration (outmigration), and for immigration to occur, the volunteers would require motivating factors.

## 2.3.2    THEORETICAL MOTIVATION FOR IMMIGRATION

An individual must feel sufficiently motivated to emigrate before taking any action to do so. A number of motivational theories have been formulated to explain this behaviour, some of which were investigated in this study.

### (A)    Maslow's hierarchy of needs theory

Eagar (2008:15) citing Allen (2003) holds that Maslow's hierarchy of needs is the most frequently used human needs motivational model. Maslow's theory posits that there are a number of successive levels of human needs and only once the needs at the

lower level have been satisfied will an individual endeavour to satisfy higher order needs. These levels from lowest to highest are:

**Level 1: Physiological needs** – these include all basic human needs such as food, water, air and shelter.

**Level 2: Security needs** – individuals need to feel that they are protected from harm, violence, disease, war and poverty. From an employment perspective, they need to feel assured of continued income and employment.

**Level 3: Belonging / social needs** – individuals need to feel love, acceptance and approval from others. They need to feel that they are part of a group and that they receive recognition from the group.

**Level 4: Esteem / ego needs** – these needs include self-worth, status, power, self-confidence and to be recognized individually.

**Level 5: Self-actualization needs** – individuals need to feel that they are challenged to achieve their full potential. From the perspective of this study, HSPs are likely to have satisfied their needs when:

**Level 1-** they are able to earn enough income to afford to purchase all the basic necessities for themselves and their families. The basic amenities must obviously also be available for purchase. Electricity may be considered as a basic necessity by many;

**Level 2-** needs are satisfied when individuals feel that they live in an environment where they can be safe from harm and feel secure in their employment. This includes not being subjected to crime and violence and feeling confident that their interests will be protected in future by the government. Should this not be the case, an individual would feel motivated to take action in order to satisfy this need;

**Level 3-** needs from an employment perspective relate to being part of a group that shares similar ideals and work ethics, where an individual is able to make a contribution. Robbins (1998) holds that in order to retain technical professionals, it is critical to ensure that they can respect and work with those who manage them. To a lesser extent, it is important that they respect those who work with them, particularly

when the group's performance is measured as a whole;

**Level 4-** needs are met when an engineer feels that their worth is recognised and that they are adequately rewarded for this, both financially and through receiving intangible rewards. They are also afforded a level of status in line with their expectations.

**Level 5-** needs are met when an engineer feels that he/she is afforded sufficient promotional opportunities and is able to reach the pinnacle of his/her career. The level of technology with which they deal, the advanced training they are afforded and the level of challenge that their jobs offer, contribute to satisfying this need.

## (B)    Herzberg's two-factor theory of motivation

Herzberg found that all variables that make people feel positive and negative in relation to their work can be grouped into one of two categories, namely motivators and hygiene factors (Robbins, Odendaal & Roodt, 2003). Herzberg relates more intrinsic factors such as achievement, recognition, work content, career advancement and responsibility to job satisfaction. Conversely, extrinsic factors such as status, security, remuneration and supervision, are related to job dissatisfaction.

According to Herzberg, removing dissatisfying aspects (hygiene factors) from a work environment will not necessarily lead to job satisfaction. He maintains that in order for that to occur, the content of work and its activities have to be challenging and stimulating, which he refers to as motivators. The presence of hygiene factors will not lead to a state of job satisfaction, but rather to a state of no dissatisfaction. Hygiene factors on their own could therefore, not motivate employees. In order to do this, the motivators must also be present. The opposite is also true. For motivators to operate as such, hygiene factors must be present (Eagar, 2008:17).

## (C)    Victor Vroom's expectancy theory

Vroom's (1964) expectancy theory, which falls into the category of process theories, considers the work environment and theorises that individuals are motivated to work when they anticipate achieving what they expect from their jobs. Individuals, who feel that no matter how hard they work, they will not reach the desired performance level, are unlikely to be motivated.

**(D)     The equity theory**

Adams' equity theory proposes that the individual still balances inputs and outcomes, efforts and rewards, but does this in comparison to others (Robbins, 1998). Depending on the outcome of this comparison, they either become motivated if they perceive themselves to be awarded equitably or over rewarded, or demotivated if they perceive inequity or under reward. Trevor (2001) found that the effect of job satisfaction on turnover is moderated by, and has a positive correlation with, education, cognitive ability and occupation-specific training. This suggests that more mobile employees with high levels of educational, high cognitive ability and high occupation-specific training tend not to be concerned with, or affected by, an economic landscape.

These debates suggest that a link exists between motivation, job satisfaction and retention. HSPs who feel that they will not be able to attain sufficient levels of motivation or job satisfaction through employment in South Africa may decide to consider emigration. Fourie (2006:7-8) citing Saxenian (2000) holds that these new breeds of circulating immigrants have brought valuable experiences and knowledge to their local economies. Todisco (2004:12) identifies two types of migration, namely economic migration and non-economic migration.

- **Economic driven migration** includes movements that are connected with employment, both present and new work activities. This is where potential immigrants or emigrants are enticed by prospective good living conditions and wage differentials;
- **While non-economic** groups include all migrations that are connected with non-work issues such as family reunions, hospitalisation, refugees, prisoners, retirement and elective residences.

As has been highlighted, economic migration can further be divided into two categories namely, **mass migration** and **skills migration.**

- **Mass migration:** involves people who are poorly educated or uneducated and who lack specific skills whose impulse to migrate is the result of factors in the place of origin, rather than factors in the place of destination, such as wars and natural calamities.

- **Skills migration:** is viewed from the perspective of brain drain, as defined by Dei and Asgharzadeh (2002:2). According to these authors, brain drain is a transfer of experience, skills expertise and human knowledge, from one country, region, area or geographic location to another. In summary, skills migration is the exodus of highly skilled people from the source country, area or region to any host country, area or region from developing to developed countries, whether they are rich or poor, based on the push factors of the perceived benefits from the hosting country.

While the former migrants act out of desperation and usually seek only to survive and will accept any work, the latter act based on preconceived best working conditions or salaries, and their plans are always vague, although they usually treasure the idea of returning to their home country one day.

The social burden that these immigrants impose on local communities can be sizeable. Local communities must deal with the problem of providing accommodation, schooling, healthcare, pensions and transportation for foreigner arrivals. In addition to the material burdens, social tensions can also arise as immigrants often find themselves drawn to criminal activities and organized crime (Todisco, 2004:12).

In a number of respects skilled migration is in contrast to mass migration. It does not involve large numbers of people. The migrants have medium to high qualifications and the migratory project is clearly identified. The period abroad is usually temporary and proportionally far fewer migrants end up becoming permanent residents in the host country. They do not cause social tensions, as in most instances they arrive with a prearranged job and do not desperately seek work. They tend to have money to pay for essential services, accommodation and healthcare, welfare contributions and schooling integration with the local community is normally straight forward (Fourie, 2006:7).

Fourie (2006:5) identifies two types of migration, namely forced and willing migration, which are interlinked with economic and non-economic migration. Before continuing, it is important to note that this introduces tangible and intangible effects.

Like the first type, **forced migration,** is more connected, but not limited, to times of slavery, colonization and war, natural calamities or natural phenomenon such as floods, tsunamis, hurricanes, drought and hunger.  The second type, namely **willing migration,** is mostly connected to the post-independence era, as well as today's socio-economic conditions. One of the common denominators between this and that identified by Fourie (2006:7) seems to be its legacy, its impact and the lack of political will to make the right decisions. Four waves of migration that occurred during the modern era were identified as:

- Firstly, the emergence of the imperial power in Europe from the seventeenth century until the end of World War One;
- Secondly, the slave trade during the same period and the dissolution of the empires after World War One;
- Thirdly, the creation of newly independent states in Asia, the Middle East and Africa and the repatriation of what where considered settler communities as part of the decolonisation process and
- Fourthly, labour migration during the 1950s and 1960s.

Fourie (2006:6) holds that this phenomenon has some advantages for the losing countries via remittances and a new skill that he or she might gain or acquire. Muula (2005:22-27) identifies three types of brain drain, namely hard, soft and grab that are also referred to as aggressive brain drain.  For a better understanding, the terms are described briefly below.

**Hard** has been defined by many authors as being that which includes push (operating from the donor country) and pull (operating from the recipient countries).

**Soft** brain drain, which is a new concept, is defined as the non-availability of results from the study where the research was carried out. **Grab** refers to the aggressive way of advertising and recruiting migrants. Four factors have been identified as accounting for the patterns of migration from Africa. They are:

- Globalisation of the international economy;
- Africa's failure to develop economically, socially and politically;
- Environmental activity derived from nature's unpredictability.

There are two variables that will determine the scale of future African immigration to developed countries. These are the **economic** and **political development** in African countries and developed countries' immigration and refugee policies (Chimanikire, 2005:1).

For the purpose of this study, it is of paramount importance to distinguish between the existence of **internal and external brain drain**. According to Semakula (2002:4-7),**internal brain drain** is the type that people rarely hear about, which causes a lack of professionals in health, education and other sectors. Internal brain drain is, therefore, defined as the lack of HSPs in the public sector. In contrast, the **external brain drain** involves skilled people who leave the country temporarily or permanently for various reasons, seeking preconceived conditions and/or safety.

## 2.4    BRAIN DRAIN AND SKILLS MIGRATION IN DEVELOPED AND DEVELOPING COUNTRIES

The following is the way in which skill migration affects all rich and poor countries, although to varying degrees. Considering the pros and cons of the matter, labour migration is not unique to African or Latin American countries. It is a daily occurrence across the globe. It yields benefits for the receiving countries by utilizing the imported skills prudently and allows countries of origin to benefit by way of remittances and the transfer of technology. Notwithstanding the negative effects of migration for the local economy, it must be emphasized that countries such as Ireland, Japan and China are classical examples of how a country's economy can greatly benefit from exporting its labour. Not only do its citizens who live abroad help to fill the country's foreign exchange purse, but they also bring back, or transfer, the technology that they have acquired to help their home countries' commerce and industry (Fourie (2006:15)**.**

### 2.4.1    Developed countries

Fourie (2006:15) cites the example of Germany in Western Europe, which seems to be strapped in a dual aspect of brain drain; on the one hand, the country needs highly qualified and skilled personnel and tries to become more active and open, while conversely, Germany wishes to keep its own researchers/scientists and avoid providing other countries with German produced intellectual capital. More than2% of German students enrol at foreign universities, particularly in the G7 countries.

An estimated 4,400 German students were enrolled as graduate students at US universities; holding 9th place on the list of countries that supply students to the US and at the same time Germany has the highest number of doctorate recipients, placing them in 6th place, ranked above Japan and Russia. Note that during 1998-99 Germans received more than 400 doctorates from USA universities and half of them were in the field of science and engineering (Fourie, 2006:16).

More than 50 percent of Ireland's population live and work abroad, but send millions of dollars back home. The Japanese deliberately send their nationals abroad to acquaint themselves with the latest technology, which they then adapt to turn their country into a manufacturing powerhouse. China is another example of a country that deliberately sends its citizens abroad as a strategy for technological advancement, which has helped to create opportunities for its economy, presently the fastest growing in the world.

According to Dell'Anno (2004:12), in today's global economy, brain gain is of strategic relevance for growth and wealth in the 21st century, a notion that the USA has clearly understood since times of slavery and to which it has reacted successfully. Germany and the rest of Western Europe are slowly reacting to it. Instead of opting to foster stronger brain gain policies, they have so far experienced more of a brain exchange, a phenomenon that has been encouraged by Europeanization. It is evident that they have not identified a way to become a more interesting and challenging place to attract the brains of the world.

Cohen & Zaidi (2002:25) support the discussion above, citing the Australian Department of Employment in its 1998 report, which affirms that Australia has been facing a skills shortage in three vast occupation areas, namely skilled trades, professional occupations and service occupations, which represent a number of professions and sectors. Such issues in Australia emanate from the supply unavailability, skills provision and demand facet of the labour market.

There has been plenty of discussion about Australia's 'brain drain'. The Department of Foreign Affairs and Trade (DFAT) holds that the number of Australians who live offshore on a permanent or long-term basis is estimated to be between 800 000 and 900 000. Most Australian experts are located in a relatively small number of locations

– Greece (120 000), the UK and Ireland (180 000), USA (100 000), Hong Kong (50 000) and Singapore (Cohen & Zaidi, 2002:25).

Several new Central European members of the European Union (EU) such as Hungary, Poland, the Slovak Republic and the Czech Republic, like Australia, are reported to be in the same situation. Yousef, Li and Brixiova (2008:46) posit that in spite of GDP recoveries and large private sector shares in output and employment, these countries have low employment rates, especially among low and non-skilled workers. The evidence in Central Europe indicates skills shortages as a key impediment to faster labour relocation and convergence to EU-15 employment standards and structures.

Importing more skilled labour is one way to overcome the brain drain. The World Bank indicates in its report that the third highest importer of skilled labour after the USA and Canada is Australia. While the Australian Government has been placing greater emphasis on this area, it is still considered relatively difficult to bring a foreign work force into the country. Australian immigration laws are considered to be more restrictive than those of Singapore, the UK, Hong Kong and the USA. Foreign skilled staff found these countries to be more attractive as work destinations.

Thailand uses special projects such as planning grants, project initiation grants, small project grants, permanent return programs and technology transfer short-term visit programs. Australia's skills migration has been affected the same as any other nation. A total of 23% of its population in 2004 was born overseas and this is due to an immigration policy that is highly selective of skilled people (Hugo, 2004). One of the main attractions for skilled migrants to Australia is presumably the country's lifestyle and the quality of life that Australians enjoy.

South Africa has been losing its skills to Australia for decades and this is due to the perception that South Africans can easily fit into Australia's corporate culture. The same applies to India with information technology. Australia's immigration programme appears to be working as a net importer of skills across the globe (Fourie, 2006:170). Yang (2005) holds that brain drain should not be seen as a curse that needs to be prevented, as it may provide benefit for countries. A report by the Institute for Management Development found that those occupying managerial positions in

Australia are perceived to be less internationally experienced than Hong Kong or Singaporean managers (this is expected, given the export dependency of these markets and their small size ), but are more internationally experienced than managers in the USA or theUK.

The America Society for Training and Development (ASTD) (2009:8), holds that in the United States of America alone out of 1,179 organisations, 79 percent confirmed a skills shortage within their organisations. The reasons are because the current workforce does not match the organisations' strategy; there is a lack of bench-strength in the organizations' leadership ranks; the effects of mergers or acquisitions and cuts in training investments. The ASTD (2009:8) cites other reasons that contribute to labour shortages in the United States of America, including baby boomers nearing retirement age and the birth rate that is continuously dropping, coupled with the booming economy.

According to Straubhaar (2000:23), the USA seems to be best prepared for the trends of the 21$^{st}$ century and is a global importer of the highly skilled. Due to its long immigration tradition, the US economy is open enough and its labour market is flexible. Foreign students contribute over 7 billion dollars to the US economy annually and the growth rate of students is 5% per annum, making education one of the bestselling exports.

Almost half of all PhD recipients in the USA in any given year are foreigners. Mahroum (1999:19) holds that many foreign students remain in the USA upon completion of their studies.  A total of 50% of all European doctoral graduates remain in the USA and never return to their home country (Mahroum, 1999:20).  This does not only occur amongst Europeans, but also amongst those from other continents across the globe.

In North America, Mexico is considered to be the largest sending country with the majority of its migrants having a secondary education level. This pattern is shared by smaller countries in Central America, but not by at least two countries in the Caribbean, namely Jamaica and Trinidad and Tobago (42% and 46% respectively (Carrington & Detragiache, 1998:22).

## 2.4.2    Developing countries

The effect of skills migration is hardest felt by developing countries, although skills migration also takes place in developed countries as mentioned above. Most of them managed to attract enough incoming HSPs to fill the gaps left by their HSPs who left for other destinations. This simultaneous in and outflow of HSPs protect these countries from the damaging effects of brain drain but unfortunately this is not the case with developing countries. Most people depend on public health services delivered by the government, which means that:

Nearly 50% of doctors, on average, are working outside the public health system; and In Kenya, registered doctors number 5 000, only 600 of whom work in the public health sector (Semakula, 2002:4-7).

An analysis of Poland's migration patterns indicates that Poland's outflow began in the mid-19th century with the second movement in the 1900's.This knowledge is critical for understanding recent migration patterns in Poland. Historically, Poles displayed resilience and the propensity to emigrate, but important migration waves began in 1860 and 1890 respectively. These were driven by socio economic conditions, underdevelopment, overpopulation and insufficient demand for labour by industry (Kozlowski, 2004 cited by Fourie, 2006:20).

The author estimates that from 1860 to 1940, approximately 5.56 million Poles settled abroad; one third of them in the US, while some 20 to 30% returned to Poland at some point. For many years Poland has had a negative balance of foreign migration and between World War II and the late 1980s, the number of Poles who left the country to settle abroad, did not exceed 35 000-40 000 per annum (Fourie, 2006:20).

This brain drain is not unique to Poland, as many Eastern European countries are in the same dilemma of losing their best skills. Countries such as Russia, Hungary, Romania and Bulgaria are all affected. In summary, the USA is experiencing brain gain; Eastern Europe is experiencing brain exchange, brain drain and brain circulation from the Western European region, while Africa is undoubtedly experiencing skills migration.  In the Asian and Pacific regions, Philippines is the biggest source, with 0.73 million migrants, of whom the majority have tertiary education. China, Korea and India have lost approximately a million citizens each to migration; while India is one the best

source countries with over 75% of its USA immigrants having tertiary education. In Africa, Egypt, Ghana and South Africa are the biggest losers in migratory flows to the USA, from which more than 60% of the migrants have a tertiary education. It is also interesting to note that migration of lowly educated Africans to the USA is virtually non-existent (Carrington & Detragiache, 1998:22).

Brain drain in Africa has reached record numbers and although statistics vary, the estimated numbers are daunting. Oduba (2003:9) estimates that up to 40% of the African continent's top professionals now live abroad. About 250 000 Nigerians are living in the United States of America, according to the US Census Bureau and an article in the Herald newspaper (Brain Drain Straggling Economic Development, 2001), which quotes research by Natal University in South Africa. It claims that it costs the continent 4 billion dollars per annum to replace the lost HSP from expatriates from the West. The same author holds that 23 000 qualified academic professionals emigrate each year in search of better working conditions.

According to the International Organization for Migration (IOM), there are 30 000 Africans with PhDs who live in various destination countries outside Africa, and 60 000 professionals comprising those with doctorate degrees of all sorts and fields of study. These professionals left the continent between 1985 and 1990 at a rate of 20 000 per year.

It is estimated that approximately 6% of trained Ghanaian doctors left the country in the 1980s. Chimanikire (2005:15-18) acknowledges that a variety of factors shaped the international mobility of labour.

Between 1985 and 1990 Africa lost 60 000 professionals, according to the UN. An independent Zimbabwean report in February 2001 pointed out that according to official figures of the country in 2000, more than 20 000 nurses left Zimbabwe with 18 000 moving to the UK alone and the rest to other Commonwealth countries. As a result, Zimbabwe is likely to suffer an acute shortage of midwives and specialist nurses.

- New Zealand alone is home to a total of 600 South African doctors who are registered there.
- South Africa receives a total of 50% of Kenya's graduates.

- South Africa has more registered Ugandan doctors than in Uganda.
- Ghana loses 90% of its doctors and 50% and of its nurses to other countries.
- USA is home to a total of 21 000 Nigerian doctors who are based there.
- In the USA alone there are more African engineers and scientists than in Africa.

Zambia had 1 600 doctors a few years ago, but presently there are only 400 doctors registered and practicing, as the rest have migrated to countries such as Botswana, Namibia and South Africa as well as Europe and the USA. In 2000 it was estimated that about 300 000 skilled African migrants are working in the USA and Europe (UNECA, 2000).

Another report indicated that from 1960 to 1975 the continent lost about 25 000 professionals to the north. This number increased to 40 000 between 1975 and 1984. In 2001 a UNESCO report suggested that 40 000 Africans with doctorates live on other continents (UNESCO, 2001).

Expatriates play a role in Africa's underdevelopment by highlighting the bias of multinational institutions and the role of the northern governments that routinely reserve portions of bilateral and financial assistance for expatriate "consultants." International agencies are responsible for sponsoring and expressing preferences for expatriates to control development projects, which is demoralizing for African professionals and by so doing could increase the likelihood of the African professionals emigrating. Narrowing the problem to Africa, Nkomo (2010) holds that southern Africa as a region within Africa also faces a skills shortage in all sectors of the economy. Unlike in Western Europe and North America, where the shortage is attributed to baby boomers nearing retirement age and a continuous drop in the birth rate coupled with the booming economy, in southern Africa HIV is considered to be one of the principal reasons for the skills shortage of professionals in the region.

According to Nkomo (2010), the disease is posing challenges to achieving social and economic development in the region, sinking the accumulation of skilled professionals, as well as price increases and diminishing productivity.

According to Chimanikire (2005:15-18), Zimbabwe runs the risk of becoming a society without experts because of an unprecedented exodus of professionalises, it faces its

worst political and economic crisis ever, as it has lost more than 100 000 of its brilliant young brains.

Brain drain assumed political connotations, with Robert Mugabe accusing Britain, a former colonial ruler, of "stealing" nurses, medical doctors and pharmacists from its nation. Zimbabwe's Association of Chartered Certified Accountants (ACCA) estimates that since the beginning of 2002 at least 200 of its members have left the country in search of better job opportunities. Other professional bodies, such as the Zimbabwe Medical Association (ZIMA) and the Zimbabwe Institution of Engineers (ZIE) have lost a sizeable number of their members too. Through all of this, Zimbabwe risks becoming a nation of expatriates unless the current exodus causing the brain drains are stopped.

Findings from a study by the Industrial Research and Development Centre (SIRDC)(2003), revealed that there were 479 384 Zimbabweans living in the diaspora.

According to Chimanikire,(2005:15-18), the majority of Zimbabweans in the Diaspora destinations are in the United Kingdom, Botswana and South Africa.

It is estimated that one in four Zimbabweans have left the country in the past five years and students are negative about their future and national economic fortunes. According to Crush et al.(2005), of the 3.5 million (25%) Zimbabweans that have left the country, 1.2 million now live in South Africa, 1.1 million are in Britain, 100 000 live in Australia and the rest are scattered throughout southern Africa and elsewhere. Fourie (2005:2) holds that because the Health Department has been so negatively affected, hospitals in Zimbabwe are presently staffed with professionals from Cuba, China, Eastern Europe and the Democratic Republic of Congo (DRC), many of whom do not speak functional English.

Nkomo (2010) holds that HIV/AIDS is also weakening the educational system in the region, as it prevents children from affected areas from attending school. It also affects the equal opportunity of schooling, scarcity of teachers, an increase in absenteeism and lower productivity. These factors have a long-lasting effect on the region, particularly in terms of meeting the Millennium Development Goals that aimed to eradicate poverty and achieve sustainable development growth by 2020.

According toSpurgeon (2001:189), just like Zimbabwe, South Africa is no exception and its High Commissioner made an unprecedented formal appeal to Canada's health minister to stop luring doctors and other health professionals. More than 150 000 South African doctors now refer to Canada as home, with% of the physicians working in the Saskatchewan province. Australia, New Zealand and the United Kingdom have also recruited health professionals in numbers and an agreement between the United Kingdom and South Africa was reached to deal with the problem. The next point discusses factors that cause brain drain on the continent.

## 2.5     INTERNAL AND EXTERNAL FACTORS THAT CONTRIBUTE TO SKILLS MIGRATION AND SKILLS SHORTAGES

In the 1960s most colonised African countries gained independence, with the former Portuguese territories following in 1975. In 1994, the last colony in Africa, South Africa, achieved majority rule with accession to independence, (Chimanikire, 2005:4-7).

In some countries, the most elementary freedoms were denied, giving rise to a mass exodus of people that was unprecedented in the history of Africa. The gap between the economic and social development of different regions within countries and of different countries inside and outside Africa has continued to widen over the years (Chimanikire, 2005:4-7).

One of the concerns of today's companies is the shortage of labour, especially in management. The baby boomers are nearing retirement age in the United States and the birth rate is decreasing. These circumstances, coupled with the booming economy, are the main causes of the labour shortage. There is a high demand for labour, but the seemingly bottomless pool of employees and managers that companies drew from has dried.  What are the factors that contributed to the problem, and how will today's corporations cope with this problem?

The number of people who migrate has steadily increased over the last 15 years (The United Nation, 2002 as cited by Fourie, 2006:9), and it is estimated that more than180 million people live outside their birth country. The International Organization of Migration (IOM), a United Nation's body, holds that we have to accept that migration will not cease, as it is an age-old human instinct to move in search of better

opportunities or security (Fourie, 2006:12). According to Danso (1994:16), the problem of skills migration is two-fold in Africa, as the continent loses out twice: first, when an HSP leaves the continent, and second, when Africa replaces this skill with a western expatriate. Social and cultural factors also perform a role with internationals from some countries, while trade and the investment dynamics of industrialization perform a role in labour migration. There are two forms of labour movements, namely internal and external movements.

- **External labour movement**: generally involves movement from one's home country to another, seeking a more attractive destination whereas;
- **Internal labour movement**: is considered the mass movement involving people from rural areas to urban centres in search of better living conditions in the form of employment, education and a better health system.

These movements, be they external or internal, pose development challenges of a substantial magnitude to the urban infrastructure, which in turn leads to outward migration from urban centres or countries. This is occurring in various countries, such as Bangladesh, Cambodia and the sub-Saharan African countries. Larger developing countries such as Brazil, China and India are not excluded. Examples of this type of movement are Chinese workers moving to Africa as a result of their companies' involvement in infrastructure projects in many countries, and Indian computer technicians providing services in Third World countries (Lafraniere, 2008:8).

Although people have been migrating for years, the reasons behind today's brain drain are not the same and those of the past, although they carry some resemblance. Semakula (2002:4-7) reports that brain drain from developing and developed countries is not the only form of skill migration among highly skilled people (HSP). The perception that skill migration or brain drain only occurs in developing countries is a myth. It occurs everywhere, from country to country, suburb to suburb and from village to city, only in differing contexts and extents.

The following section discusses some of the most common reasons for, and factors of, migration, as a powerful international process. Migration is a result of many factors, not limited to age, colonisation, globalisation and environmental factors. People leave their countries for other shores for a variety of reasons such as:

- Economic reasons;

- Political persecution;

- Lacking career opportunities;

- Poor or lack of facilities;

- Globalisation;

- Individual reasons/ adventure;

- Social reasons;

- Environmental reasons.

## 2.5.1    The Impact and implications of brain drain

In a broader dispute, the skills shortage in South Africa contributes to the existing social ills, particularly in squatter camps and townships. The shortage of skills contributes to a high level of unemployment and has destroyed many families. It negatively affects services, both in the private and public sectors and manifests in poor standards of service, slowing economic activities and increasing crime and violence (Koep et al., 2010:4).

Although migration is an age-old phenomenon, the increase in skills migration from Africa, and especially South Africa over the past decade, has serious implications for the country of origin. Today the most underestimated factor in the world economy is migration, according to the conference organised by the United Nation on Trade and Development (UNCTAD). According to Haffajee (2001), migration can have both positive and negative implications politically, economically, socially and on health and if countries took it more seriously they would realise the benefits deriving from it.

### 2.5.1.1    Social factors and health implications

Migration can have serious social implications for families, as well as for the countries involved as it disrupts family life and social relationships (Mazuru, 2014:137).

According to CDE (2007:11), in South Africa the skills shortage has a social impact that is felt in various ways. In townships and rural area residents have poor sanitation due to a lack of qualified people in municipalities, the electricity shortages, water cut

offs and the frustrations of firms who cannot fill advertised posts because there is no suitable qualified candidate.

Crime, poor living conditions, poor health care, HIV/Aids, substandard higher education institutions, religious persecution, gaining international experience and better career opportunities abroad, are all socio-economic factors that contribute to skills migration. These factors are not new phenomena. Socio-economic conditions in the UK largely contributed to British migration to North America in the 1800's (Fourie, 2006:12).

In Zimbabwe many households were left headed by children, as parents migrated into the Diaspora to look for employment and contract jobs, while others embarked on cross-border trading and spent two weeks or more at a time out of the country without their children(Mazuru, 2014:137). This affected children's school performance because of a lack of parental care and attention. Katseli et al. (2006:44) postulate that children in migrant families often grow up in a single parent household and are confronted by problems of family disintegration and family stress. This was also a common phenomenon in Zimbabwe, especially between 2006 and 2008. Lack of parental attention can also affect children's morals, especially those immigrant families.

In the case of Sudan, brain drain is not only caused by social factors, but also by environmental factors (Fourie, 2006:12). The largest contributing factors to brain drain in Sudan have been drought, famine and civil war. These factors have brought about an increase in Sudanese migration over the past two decades. This author also mentioned that the use of migration schemes and selective policies made to lure highly skilled workers and the inability to design and implement adequate policies to train and retain human resources are compelling difficulties.

The above statement is supported by Wallis (2002:1), who suggests that work performance is affected by skills shortages as posts without competent candidates to fill them, diminish the quality of customer service and customer satisfaction. Companies' creativity is impeded and no new products are developed. Moser (1999:1) disputes this by stating that poverty and inequality are the two main social problems brought about by a skills shortage in a country, along with the increase of

unemployment among the youth, as well as crime and violence within the society.

Moser (1999:1) echoes the importance of recognizing that a skills shortage affects social development nationwide, worsens peoples' poverty and increases violence, which together are the most complex forces that deteriorate the wellbeing, livelihood, security, physical safety, survival and self-respect of the people.

Crime and violence in South Africa are also associated with a skills shortage in the country and the shortage of skills is considered to be a contributor to poverty and high levels of wealth disparity (Ploch, 2011:13; CDE, 2007:11; Wallis, 2002:1;Weatherburn, 2001:5).

Literature shows that African immigrants in the west suffer the indignities of racism and discrimination, as well as the iniquities of unemployment and underemployment (Zeleza, 1998). In the USA, only 2 256 African scholars were teaching in American universities compared to 35 620 from Asia, 26 688 from Europe and 4 676 from Latin America. Many of them rarely find university teaching or research positions, although an estimated 23 000 university lecturers leave African universities annually to join the Diaspora and it is evident that the majority of them find employment outside academia. This could be indicative of how the west sees Africans (Kigotho, 2002).

Ultimately, highly qualified African scholars have no option but to become teaching and research assistants abroad, after failing to secure research fellowship posts or high-profile teaching positions, while some intellectuals join the long lines of lumen professoriate, a floating faculty, which is excluded from the privileges of tenure, in the case of the USA, or trapped in low rated colleges or historically black colleges and universities that are under-funded (Zeleza, 1998).

It appears that the realities that await some of the intellectual migrants in the Diaspora are unknown, as one disgruntled exiled intellectual from West Africa wrote: "My experience suggests that the portrayal of the lives of Africans in intellectual exile as being rodent of the Biblical promised land, full with milk and honey, is both untrue and unreal", a sober and honest testimony to the dissonance in the 'push-pull' equation between experiences in, and expectations of, the Diaspora. There is an abundance of anecdotes of African professionals who are janitors in Paris, cab drivers in London

and swelling the ranks of informal sector hawkers in New York, not to mention those performing minimum wage jobs in fast foods restaurants (Zeleza,1998:13).

A number of African emigrants are suffering the indignities of racism, loneliness, inequality in unemployment and underemployment. Besides discrimination, racism and xenophobia, it has been found that brain drain also entails socio-cultural ills in a given country. The press is replete with articles describing that while the Zimbabwean Diaspora's economic emancipation has brought financial salvation to most families and the country, it has also brought socio-cultural ills, namely child delinquencies, marriages and other relationship break-ups, with cases of infidelity topping the list (Herald, 2003).

Nelson Katsande, a Zimbabwean, left his job as a sales representative at a manufacturing company in Harare, where his company perks included, among other things, a company car, paid holidays and free professional development courses, left his job for England to pursue a degree in marketing but was evicted from college for non-payment of fees and had to seek a job in a nursing home for the elderly.  He narrated his ordeal as follows: "Shamwari (my friend), life is difficult for me. I look after an elderly man who cannot do anything on his own. I have to feed him, take him to the toilet, bath and dress him. I regret coming here. Now I have backaches as I have to lift the old man daily. All my dreams of a better life here are shattered. I have no social life and miss home dearly" (Mushonga, 2004).

Tapfumaneyi is not the only one in this predicament. Many professionals who left their lucrative careers for a "better" life abroad are presently living in misery. Doctors, engineers, managers, teachers and once prosperous businesspersons have all been reduced to nothing. The majority of these professionals are cleaning the streets of London, while others are absorbed in the "care" industry, looking after the elderly. Life in the Diaspora is not as rosy as it is perceived to be. Those who were high-flying engineers, managers, academics and businesspersons in Zimbabwe have become "carriers" in their new life in England. They have gained extensive experience in a wide range of jobs such as street cleaning, "bottom" cleaning and garbage and warehouse cleaning (Anon, 2006).

Other brain drain researchers who stress socio-cultural explanations as being the major causes of brain drain also attribute migration and the "brain drain" to futile or esoteric issues such as "the prestige associated with travelling to a foreign country", in particular to Europe and the US. Gwaradzimba &Shumba(2010:210)hold that a main cause of brain drain in Zimbabwe and South Africa specifically and Africa in general, is because these citizens have been educated by the colonial masters to love all things foreign. Africans have always had the desire to go overseas in order to validate themselves. A more convoluted version by Zeleza (1998:14),is that The Third World middle classes, is seen as islands of western modernity, seek class fulfilment in the cosmopolitan cities of the North" by seeing themselves as a reflection of the western world, and in that way they feel superior.

The mentality of Africa's elite governing and middle class has one problem that should be addressed. In their wish for a better life, they aid indepleting Africa of its best brains, causing the brain drain by sending their children to study and learn in western countries' universities, perceived to provide better quality education and by so doing they help to perpetuate the problem. These elites are generally people who are responsible for the design and development of Africa's educational systems. When those who have studied abroad return to lead African organisations, they continue to pass on the Eurocentric values and attitudes. Despite all that is said about Africa being a rich continent with a diverse work force, the following statistic, as indicated by Semula, serves to illustrate the health implications that affect growth and development (Semakula, 2002:4-7).

According to Semakula (2002:4-7), Africa is rich in diversity, as it has 55 countries with the split of South Sudan, with 703 million people presently that will increase to1.2 billion by 2015.

- **Material resources:** Abundant in material wealth, Africa is a rich continent.

Agriculture, energy, forestry, oceans and rivers, petroleum, mines, as well as abundant reserves of coal and natural gas and some of the richest gold deposits, copper, diamonds, platinum and cobalt in the world, Africa has it. Yet the African continent enjoys barely 2% of the world's economic trade owing to the lack of adequate infrastructure.  Africa's (GDP) does not match its natural resources and in 1992 the

average annual income of Africans was about \$530. HIV/AIDS in Africa is now considered the greatest threat to African development and is visible everywhere across Africa, with 28 million people infected.   A total of 70% of the worldwide population living with the disease are Africans, yet they constitute less than 1/6 of the world's population.

With some countries having an infection rate of more than 30%, southern Africa is the region that is hardest hit, by the disease, with South Africa having 17% of the people who are infected with HIV in Africa, totalling 4.7 million. By losing a quarter of their health care workers, some countries; health care systems aredeteriorating and leaving HIV/AIDS to kill its people.AIDS in Zambia is the main cause of death for teachers, amounting to half the number of new teachers trained in a year. Annually Malawi also loses 6-8% of its teachers. In 2001 alone Malawi lost almost 7500 to the disease.Fourie (2006:40-41) holds that in no other industry is the brain drain of highly skilled people felt more by the general South African population than in the health sector.

The brain drain of skilled doctors and nurses from Africa to perceived better paying jobs overseas is jeopardizing the international fight against the HIV and Aids epidemic, while the disease itself is also killing Africans in large numbers in their most productive years. The flight of skilled South African professionals is taking place at a time when 11% or 5 million of the country's total population are HIV positive (Darrignton,Bradsha, Johnson & Budlender, 2004).

Professor Daniel Ncayiyana, editor of the South Africa Medical Journal, says that the loss of practitioners and highly qualified specialists in the academic complexes undermines the country's capacity to produce future doctors. Brain drain is also affecting the non-governmental organizations (NGOs), because in South Africa there are a limited number of social workers left in this sector to cope with the rising number of vulnerable people, as these agencies simply cannot compete with the high salaries that are offered in governments and companies in countries abroad.

It is also evident that globalisation has a role in the ongoing brain drain and brain gain, circulation and exchange patterns and rapid globalisation that has created pull factors. Abedian (2001) holds that these factors are, for example, much higher salaries and

remuneration packages, the promise of less uncertainty and a more peaceful environment and generally, better life-style prospects.

Crush (2004) has a different point of view, and posits that push factors such as crime, personal safety and poor working conditions rank highly in South Africa. Globalisation, however, is not areas on for this phenomenon, but merely a contributing factor. Perhaps the reasons why HSPs migrate is because of a combination of push and pull factors.

## 2.5.2   Political factors

Discrimination, changes in political dispensation such as in the case of South Africa and new employment policies such as affirmative action and the refusal by some to work under a black government, can contribute to skills migration and ultimately a skills shortage, hence "brain drain".  Fourie (2006:12-13) provides examples of political and religious persecution that drove luminaries like Albert Einstein and Enrinco Fermi across the Atlantic more than half a century ago. Standard human capital theory suggests that members discriminated against minorities more in education, when this provides them with the means to avoid discrimination by emigrating to other countries.

The same author cites another example of discrimination against minorities that can lead to political persecution that result from the personal philosophical incapability of political authorities. An example occurred prior to World War II, when thousands of Jews fled to eastern European countries to escape the political persecution of Nazi Germany.

According to Fourie (2006:12-13),a more recent example is the scores of Zimbabweans who have migrated to other countries in fear of persecution by president Robert Mugabe's government, while the deliberate attempt to fill jobs in the public sector with specific ethnic groups also contributes to skills migration or brain drain. An example of this is the Kenyan process known as "Kikuyunization", where members of certain tribes were denied promotion and ended up leaving the country. The same happens in South Africa, where mainly blacks left the country for the purpose of exile, escaping the Apartheid system. At present, affirmative action policies that were

implemented after a change in government, have also contributed to an increase in skilled white professionals emigrating.

Poor human rights practices, arbitrary or political arrests, political intolerance, a lack of academic freedom, civil conflict and wars and perceptions of an illegal regime are among the political reasons that are cited for brain drain. All these factors occur in Africa. However, a distinction should be made between migrants and refugees, especially between political and economic migrants. Economic migrants choose to move in order to improve future prospects of a better life, whilst political migrants choose to leave based on the current political system, or because they are being discriminated against politically; in other words, they leave owing to political push factors, while refugees move to save their lives and preserve their freedom (Fourie, 2006:12-13).

Besides its perceived negative impact on the economic development of the origin country, brain drain has been found to have negative consequences on the socio-political wellbeing of a country. Some authors have argued that intellectual migration deprives civil society of the organisational political skills of middle-class professionals. The author of the research does not concur, as Africa's independence is a result of migration. According to some critics, while African governments publicly denounce the migration of their intellectuals, they do little to create conditions that would stem the flow of emigration (Zeleza, 1998). Perhaps they realise the advantages it brings to their countries.

Emeagwali (2009) supports the above observation and holds that brain drain makes it difficult to create a middle class, which comprises doctors, engineers, academics and other professionals. It costs poor countries enthusiastic people with know-how to resist corruption and incompetent governance. He also said that brain drain has resulted in a two-class African society: a massive underclass consisting to a large extent of unemployed and poor people, and a few wealthy people who are mostly corrupt military and government officials (Emeagwali, 2012). This means that brain drain gives rise to poor leadership and corruption. A large educated middle class will insist on ballots instead of transferring political power by bullets.

### 2.5.3   Economic factors and implications

Every coin has two sides and it is crucial to consider both sides.  Although emigration into the Diaspora has helped to alleviate most of the economic and social problems that the country faces, it has also created a number of problems. Several economists have proposed that this phenomenon produces considerable disruption in the source country. One particularly negative consequence is brain drain. A number of skilled personnel, for example doctors, nurses, teachers and lecturers left Zimbabwe during the economic crisis,(Mazuru, 2014:135).

Hanson (2008:1) was correct when he posited that in most of the developing world, the more skilled people have the highest propensity to migrate. This affects the health and education sectors negatively, as these sectors are then left with a shortage of staff, thereby worsening the situation.

In support of this, Joly (2000:26) asserts that if skilled labour moves from developing to developed countries, it may reduce the economic potential of poor countries, while the destination countries seem to have found a solution to their problem of labour. The gap between poor sending countries and wealthier destination countries could be increased by migration. Closely connected to the issue mentioned above is the fact that brain drain can hinder the economic development of a country through a reduction in the tax base. In the case of countries such as South Africa and Zimbabwe, where many skilled personnel left the country, this also means that there was a reduction in the number of people who were supposed to be taxed by the Revenue Authority (ZIMRA), especially the PAYE (pay as you earn) tax. Taxation is important to every government, especially in developing countries, as this is where a greater percentage of the salaries of civil servants come from. Taxation helps governments to fund public projects such as infrastructural development in the form of roads and dam construction.

The political aspects of brain drain cannot be disassociated from the economic aspects. Firstly, it should be emphasised that it is contrary to the great international economic and political objective, namely closing the gap between developed and under-developed countries.  At the same time, it expresses the complexity and inter-dependence of various societies; derived from disproportionate economic,

technological and scientific development, entailing contradiction in the training of human resources and the ability to respond the several demands of various groups.

It is characteristic of brain drain that the more under-developed a country is economically, the more it loses by way of brain drain, with only developed countries benefiting from the process. It occurs through a complicated interplay of direct and indirect economic factors. Traditional economic factors are one of the main reasons for skills migration and probably the most obvious of all (Fourie, 2006:14-15). Some hold the view that people ultimately migrate to improve their economic well-being.

Adpoju (1984) supports Fourie (2006) by postulating that economic factors also contribute to brain circulation. Economic factors are also players in developed countries. An example is the Canadian IT specialists who in the late 1990s, although better paid than their counterparts in the USA, Canada's high tax rate wiped out that advantage and it became almost impossible to compete against US take home pay, resulting in many Canadian IT specialists migrating to the USA.

The Centre for Development and Enterprise (2010:9); Richardson (2007:8) and Rasool and Botha (2011:1) postulate that skills shortages prevent South Africa from growing its economy and contribute to the high levels of unemployment. When creating jobs, it creates poverty due to large scales of unemployment and limits the country from being competitive in the international arena.

The latter is supported by Bohlmann (2010:1); Thornton (2008) and Moser (1999:4), who hold that the lack of a skilled workforce is a curb to business growth and productivity and contributes to unemployment and poverty. The brain drains in South Africa not only affect certain industries or sectors, but has a negative impact on the country's economy as a whole. It is estimated that South Africa's brain drain costs the country R2.5 billion annually (Jones, 2004). Another detailed study estimated that the emigration of graduates is lowering the GDP by 0.37% per annum and that R67.8 billion of investment in human capital left South Africa in 1997 alone (Kaplan etal., 1999).The American Society for Training and Development (ASTD, 2009) theorises that an unprepared work force can hamper organizational growth and performance and can also reduce profits, create inefficiencies, lower morale, impede market share and, more importantly, it can also have an impact on the quality of service that is

provided to citizens or customers and harm the economy due to a lack of qualified work force, restricting companies' choices in the selection of skilled labour.

It affects the cost of overtime, which is negative for the organization, decrying productivity. According to Lobo and Wilkinson (2007), a skills shortage causes disruption of project schedules, thereby causing the firm to overwork its existing employees. This has a collateral effect on a country like South Africa, characterized by a number of negative features such as poverty, disparity in the distribution of wealth and the marginalisation of the majority black and coloured population. It also affects service delivery.

A question that economists ask and that was again raised by Fourie (2006:67), is why some countries are poor while others are rich. Responses from the rest of the economists' theories emphasised differences in the education levels of the population as an important part of the answer, a better and improved schooling system that should raise incomes in developing countries (Carrington & Detragiache, 1999). Still, a number of developing countries are losing their skilled and educated people to other countries.

Brain drain is depleting African countries of the skilled human resources necessary to build institutions and infrastructure that support strong economies (South Africa, 2002). Skilled and unskilled jobs are more closely linked than people realize. According to a UNISA survey, the loss of each skilled professional costs South Africa up to 10 unskilled jobs (SA Hit, 2002).

This is detrimental to the economy, which is already struggling with high rates of unemployment and skills shortages. Kaplan et al. (1999) estimate that R11 billion worth of skilled labour left the country from 1994 to 1997.This estimate is based on the assumption that each emigrant gives rise to an outflow of 1 000 000 rand (excluding physical assets) from the country. A further cost to the country is in terms of increased prices/wages for skilled and professional labour because of emigration that leads to a decrease in supply. Besides the adverse effects on economic growth, brain drain is also responsible for a reduction in the nation's capacity to develop a knowledge-based economy and compete effectively in the global economy. Investors are normally not

willing to invest in a country, given the fragility of the economy caused by the skills shortages that also affect the country's social and economic development.

Gwaradzimba and Shumba (2010:216) indicate that one of the negative consequences of brain drain is that it fuels a vicious downward cycle of under-development and poverty (Avveduto & Brandi, 2001; Sako, 2002; Todiscoet al., 2003). According to these authors, brain drain represents a development constraint both in terms of development opportunities and lost investments, as it drains sending areas of their human capital that took enormous resources to nurture and produce (Sako, 2002:5).

The international transfer of human resources in the form of human capital is not recorded in any countries' official balance of payments statistics. The UNCTAD for example, has estimated that one highly trained African migrant who is between the age of 25 and 35, represented a cash value of US $184 000 in 1997 (Sako, 2002:6). Economists believe that brain drain is to a large extent a negative externality that is imposed on the source country and amounts to a zero-sum game, with the developed recipient countries becoming wealthier at the expense of the developing source countries that are becoming poorer (Sako, 2002).

In a different vein, proponents of brain drain, a divergent school of thought, mention that the sending country suffers a net loss because it funds the education and training of professionals who, when they begin to produce, decide to emigrate. Avveduto and Brandi (2001:31) corroborate the above sentiments, and contend that: "the country that invests in human resources is not the one that enjoys the return on its investment". Conversely, the hosting country gains qualified workers without having to invest in, or bear the costs of training them and in that way makes a net gain.

The loss of these professionals means that developed countries are benefiting unfairly from Africa's scarce resources. Africa's education budget becomes nothing but a supplement to fund the education budgets of the north. In essence, Africa is providing developmental assistance to wealthier nations, making the rich countries richer and the poor nations poorer (Emeagwali, 2004). The result of this exodus means that the vicious cycle of poverty in less developed countries is far from reaching an end. Although it has not been empirically proven, there is a general belief that brain drain

tends to pull the "best and the brightest" from their home countries, the same people who are most equipped to help improve living conditions at home.

It is believed that "the best and brightest" can migrate, leaving behind the "weak and less imaginative", resulting in a slow death for Africa. Emeagwali (2004:1) holds that few people do not realize that Africans who immigrate to the US contribute 40 times more wealth to the US than to the African economy.

Gwaradzimba and Shumba (2010:)posit that Africa's ongoing development efforts would continue to be undermined as long as the current human capital flight/brain drain continues (Selassie, 2002). Emeagwali (2004:1) contends that it will be possible but difficult, to achieve an African renaissance without the contributions of: "the best African musicians, the top African writers, the soccer superstars they all live in the United States and Europe". The brain drain problem has also contributed to Africa's growing marginalisation in the global economy (Selassie, 2002).

### 2.5.4   Environmental factors

Environmental refugees (people displaced because of natural catastrophes such as droughts and earth quakes), are not included in the definition of refugees and international law (Fourie, 2006:12-13). According to a BBC Fact File (Global Migration, 2004), at the end of 2002 about 10.4 million people around the world had refugee status. This does not include the 4.1 million Palestinian refugees who are assisted by the United Nations Relief and Works Agency.

According to the Red Cross and Red Crescent Society, climate change disasters cause more displacements than war and persecution. An estimation of climate refugees ranges from 25 to 50 million; economic consideration such as poverty and unemployment are contributing factors; while a lack of jobs in the country of origin and the promise of better salaries or wages abroad, serve as motivating factors.

The term 'climate refugees' broadly refers to people who are forced to migrate internally, or across a border, because of the environmental threats of climate change. Peoples' livelihood is lost through unsustainable exploration and the exploitation of natural resources in poor areas, especially in west Africa, where people rely on fish, not only as a source of protein, but also as an important source of livelihood

(Chimanikire, 2005:4-8). Environmental factors also refer to those calamities or factors that are caused by nature, such as cyclones, volcanoes, earthquakes, floods and hurricanes.

These people are considered to be environmental refugees (Lafraniere, 2008:6). Examples of environmental factors include, but are not limited to, the floods in Mozambique, hurricane Katrina in the USA and the recent cyclone in Myanmar.In Mauritania, lobsters vanished in 2004. The catch of octopus, now a most valuable species, is four-fifths of what it should be if it were not over-exploited. The most marketable fish species off the coast of Senegal were close to collapse according to a2002 report by the European Commission (Lafraniere, 2005:4-8).

## 2.6　PUSH AND PULL FACTORS THAT INFLUENCE BRAIN DRAIN

The search for better livelihoods and improved standards of living has led to the movement of labour not just between developing and developed countries, but also from developed to developed and developed to developing countries, as well as amongst developing countries. The push factor for this form of circulation could be political, social, environmental or economic. While globalization has brought economic benefits to many, it has also sharpened the division between rich and poor.

Brain drain is a result of the migration of professional people from one country to another, usually for higher salaries or for better living conditions. Despite the clarity of this definition, most efforts to halt the brain drain or to reverse the process, especially in African countries, seem to pay little attention to the economic and social imperatives (Chimanikire, 2005:4-7).

In support of the above statement, Robinson (2003:1) suggests that instead of an unabated continuation of brain drain; rather see this new trek for its positive repercussions for the country. This could be via the expatriate returning home with new skills and knowledge, which could benefit the country.  Never before have there been such opportunities for labour integration and mobility in the context of trade and investment-led as it is now facilitated by globalisation. The factors that influence labour mobility in sending and receiving countries are probably unprecedented. It is difficult

to clearly distinguish between push and pull factors but various factors act as catalysts for labour mobility*.*

Roudgar andRichards (2015:78) contend that various studies note the impact of 'political climate' in determining the magnitude of HQP migration from developing and developed countries. Wilner (2008) suggests that "political climate impacts on the migration patterns in the source countries". As it seems that these countries produce academics and professionals for the benefit of the receiving countries. According to Giannoccolo (2009), whether the political climate isconducive or not, it has fundamental implications for professional mobility, the rate of migration and the impact on brain drain. This is an important factor to consider when thinking of emigrating. Culture, religion and language are also factors that need to be considered in the decision to migrate.

Several educated African professionals and citizens of developing countries find Western cultures and standards more appealing than their own traditional, cultures and social structures. This may include the secular pluralism of the West.

Roudgar and Richards (2015:78) citing Solimano (2002), hold that there is a link between global brain drain mobility and the influence of political regimes on migration flows. He concludes that: "The outflow of human capital is not only led by better opportunities for study and work in the developed countries (pulling factors), but also by economic and political conditions at home (pushing factors)". There seems to be no clear relationship between political aspects, academic freedom, democracy and resources that are devoted to universities and research.

## 2.6.1   The push-pull theory

Theories that attempt to explain why people move from one country to another have been propounded. One such theory is the "pull-push" factor theory (Mattes and Richmond, 2014). According to this theory, in order for emigration to occur, there has to be a "push" or negative factors in the subjects' current country of residence that cause them to move. These" push" factors may include low salaries, scarce employment opportunities, political unrest and a lack of infrastructure such as in the

economy, for example, while there should also be a supply in order to have a demand and *vice versa*.

Conversely, 'pull' factors have to be present in the destination country, such as high prospects of employment, higher salaries and political stability. "Push" and "pull" factors may exist in both the sending and receiving countries. Before making the decision to move, the potential emigrant weighs these factors againstone another. The effects of "push" and "pull" factors are discussed in more detail later in this dissertation in light of the research findings. Besides the "push" and "pull" factors, there are potential obstacles that influence the decision of a would-be emigrant. These obstacles may include expenses involved in relocating to another country and migration laws (Mattes and Richmond, 2014).

## 2.6.2   Push factors (internal factors)

Pus factors can take many forms. Crime and discrimination, coupled with gender and class discrimination could provide sufficient motives to encourage people to migrate. Skilled workers, like all humans, are attracted by opportunities to better utilise, deploy or enhance their skills. They perceive that they will have so many more opportunities compared to what is available in their home countries, where institutional infrastructures are underdeveloped. Another push factor is the environmental degradation of natural resources; the impact of climate change within countries, coupled with population growth, increases the pressure on people to move, not just within the country but also between countries.

The researcher points out that when a country is negatively affected by climate change with factors such as drought, water shortages and coastal flooding, itis likely to cause millions of people to suffer from hunger, leading to possible mass migration.

Although it is difficult to estimate the extent of the movement, it could range from hundreds to millions of people who are at risk of malnutrition and a lack of potable water. Currently, 200 million people live in coastal zones that are at risk of flooding. 60 million people in south Asia alone. For South Africa, the push factors include crime, the high cost of living, high levels of taxation and the decline in the standard of public services, particularly health and education.

The economy and crime are the major push factors. A study conducted by UNISA found that the main reason for brain drain is fear of crime; fear of the HIV/AIDS epidemic and the high rate of unemployment, coupled with affirmative action policies that mainly affect white citizens. Political change has also increased the rate of skilled white emigration. South Africa's skills migration is now amongst the highest in Africa (Haffajee, 2001).Professionals are being headhunted from abroad. They have earned the reputation of being hard workers who have acquired good western education and are willing to work for less money than westerners. The attitude towards South Africans is normally positive; hence their ability to land jobs in other countries (Theobald, 2003).

Khadria (2004:6), in his survey of health professionals in New Delhi, reported that the primary motive for the out-migration of doctors related to training and career opportunities, compared to nurses that focused on improved income prospects and quality of life. Similar patterns were reported amongst Ghanaian nurses and doctors. It is not clear whether these differences relate to the distinctive labour market context of each occupation, or whether other factors related to gender and other workforce attributes influence the motives of migrant health professionals (Mensah et al., 2005:28).

Osando (2006: 8) summarises the causes of brain drain as follows:

- Low and eroding wages and salaries;
- Unsatisfactory living conditions, lack of transport, housing;
- Under-utilization of qualified personnel;
- Lack of satisfactory working conditions;
- Low prospects of professional development;
- Lack of research and other facilities, including staff support; inadequacy of research funds;
- Lack of professional equipment and tools;
- Social unrest;
- Political conflicts and wars;
- Declining quality of educational system;
- Discrimination in appointments and promotions;

- Lack of freedom.

Negative economic shocks tend to have spill-over effects on various sections of an economy. An illustration of these spill-over effects is the degree by which the educational levels of applicants in nursing schools in Ghana have increased, as applicants are now perceiving a nursing qualification as a means to leave the country (Mensah et al., 2005:19). Below is a summary of the impacts of the brain drain in respect of its negative effects.

A useful way to understand the impact of migration on the origin country and receiving countries is to relate the consequences of migration to its causes(Mazuru, 2014:132). Joly (2000:26) proposes to firstly seek out the causes of a problem before trying to determine its effects, because as the first question is answered, it will often help to respond to the second. He also posits that the effects cannot exist without its cause, but the latter in turn needs its effect, while it is from the cause that the effect draws its energy.

It is important to consider both stances. Although the emigration of Africans into the Diaspora has helped to alleviate most of the economic and social problems that the country faces, it should be considered that this also created a number of other problems. Several economists have proposed that this phenomenon often produces considerable disruption in the sending country. A negative consequence, which results from this scenario, is brain drain. An example is Zimbabwe, which experienced skilled personnel leaving during the era of economic crisis, for example, doctors, nurses, teachers and lecturers, mainly for South Africa and Namibia. Thus, Hanson (2008:1) was correct when he posited that in most of the developing world, the more skilled the person, the higher the propensity to migrate (Mazuru, 2014:135).

### 2.6.3 Negative impacts of brain drain

- It diminishes the already low number of skilled human resources that are available in African countries and, which are required for their development;
- The number of dynamic and innovative people is reduced, whether entrepreneurs or academics;
- It increases countries' dependence on foreign technical assistance;

- It widens the gap between African and industrialized countries and slows the transfer of technology;
- The continent's scientific output is negatively affected;
- Money is lost from the potential source of income tax revenues and contributions to the gross domestic product (GDP).

This has negatively affected the health and education sectors, as these sectors were left with staff shortages that worsened the situation. Closely connected to the issue mentioned above, is the fact that brain drain can hinder the economic development of a country through the reduction of its tax base. As many skilled personnel in Zimbabwe left the country between 2000 and 2008, this also means that there was a reduction in the number of people who could be taxed by the Zimbabwe Revenue Authority (ZIMRA), especially by way of the PAYE (pay as you earn) tax(Mazuru, 2014:135).

Taxation is important to all governments, especially in developing countries, because that is where a greater percentage of the salaries of civil servants come from. Taxation also helps governments to fund public projects such as infrastructural development in the form of roads and dam constructions. It can also be used for the provision of social services such as funding health and educational facilities, for example, the building of schools and hospitals, as well as the buying of medical supplies, textbooks, school furniture and funding welfare programmes. Taxation also helps the government to obtain money for subsidies, which will in turn help the nation, especially the poor. In this way the emigration of skilled people from their countries hinders economic development, while also posing a threat to the social sector(Mazuru, 2014:135).

### 2.6.4  Pull factors (external factors)

Developed countries offer certain benefits that South Africa cannot match. According to the International Monetary Fund (IMF), pull factors in developing countries include higher wages and a perceived better quality of life, educational opportunities for children, stable jobs, as well the desire to interact with a broader group of people with similar skills. One of the main factors concerns finances (better wages, better access to information and social values act as a magnet for African professionals).

Another factor is the additional opportunities that are on offer in developed nations. Following the restructuring of South African sport teams and consequent Kolpak agreement offers, (that allow players from South Africa to take part as local players in the English league), the opportunity to establish themselves in the first-class scene for young cricket players was a strong pull factor. The same applies to other sporting codes such as soccer and rugby (Brain Drain in SA Cricket, 2004). South African rugby has also been affected by brain drain (Cash Lures Springboks, 2002).

**Demographic and labour factors:** There are increasing complementary aspects between countries that belong to the OECD and developing countries with respect to the interrelated issues of demographics, labour force levels and opportunities for genuine new skills trade (Puri, 2007:12). In summary, Osando (2007:8) describes pull factors as:

- Higher income and wages;
- Higher standards of living;
- Better working conditions; professional development, job and career opportunities;
- Substantial funds for research;
- Modern facilities and advanced technology;
- Availability of experienced support staff;
- Political stability;
- Modern educational system; prestige of 'foreign training';
- transparency, meritocracy and
- Intellectual freedom.

### 2.6.5   Positive impact of brain drain

Mazuru (2014:134) opines that emigration can have an economic impact on the source country and that these effects can either be positive or negative. The Diaspora can perform a number of important roles in helping develop the home economy, especially by remitting to the home country. Thus, remittances act as a remedy for the home country. The formal ways of sending money include money transfer agencies such as Western Union and Money Gram. These were mainly used by those who had formal travelling documents and work permits. For those who did not have documentation,

the informal means include giving parcels to cross-border bus drivers or friends and relatives from the Diaspora. Whether formal or informal, what is important to note is that the Diasporas were helping their families and the country as a whole, enhancing their families' standards of living and thereby contributing both to the home economy and the nation's trade balance.

Docquier and Rapoport (2007:18) concur and contend that remittances often make a significant contribution to the gross national product (GNP) and are a major source of income in many developing countries. Remittances present a primary route through which non-migrants benefit from the migration process. Apart from the issue of remittances, emigration also helps to decrease the labour pool in the sending country, whilst alleviating unemployment.

Joly (2000:26) shares this view, theorizing that sending countries that are overpopulated in relation to the level of economic development, tend to export it, which alleviates the potential social and economic problems that this situation might entail. Another positive impact of emigration to sending countries is that when the emigrants return home, they can introduce new and advanced ideas that they acquired in the Diaspora. They can also bring new technologies and new business ideas that they came across during their stay in the Diaspora. In summary, this is a positive spin-off of migration, while its pull factors have the following positive effects:

- Contribution of new skills and new knowledge when migrants return;
- Remittances from skilled migrants boost household welfare;
- Remittances support the balance of payments;
- Investments from the expatriates;
- Transfer of technologies;
- Improve the livelihood of those who remain in the home country.

Apart from introducing new business ideas and technology to their respective mother countries, migration also helps emigrants to acquire savings during their stay in the Diaspora. In line with this, Mazuru (2014:135) citing Docquier and Rapoport (2007:20), opines that instead of sending remittances to relatives at home, migrants may return once they have accumulated savings abroad and then use these savings to promote investment projects, which are generally small businesses.  There is evidence that

low-skill workers migrate with the aim of accumulating enough savings to become self-employed.

## 2.7 THE ROLE OF THE DIASPORA IN DEVELOPMENT: REMITTANCES AND THEIR POSITIVE IMPACT IN VARIOUS COUNTRIES

Diasporas are "ethnic minority groups of migrant origins residing and acting in host countries but maintaining strong sentimental and material links with their countries of origin— their homelands. Diaspora members identify themselves as members of a dispersed identity group with continuing common ties to the homeland" (Boly, Coniglio, Prota & Seric, 2014:3).

According to Boly, Coniglio, Prota and Seric (2014:3), citing authors such as Rauch (2002)andWei and Balasubramanyam (2006), there are several ways in which the Diaspora can stimulate economic development in home countries, as outlined below.

- Diasporas contribute to financial flows for their home countries through private money transfers (remittances) to family members. For example, in 2010 global remittance flows were estimated to have exceeded $440 billion. From that amount, developing countries received $325 billion (World Bank, 2011). The true size of remittances, including unrecorded flows through formal and informal channels, is likely to be significantly larger. Diasporas also organize philanthropic activities that are targeted at the homeland, either through Diaspora organizations, faith communities/organizations, or less informal, more individual ways.

- Diasporas can have a substantial impact on trade flows. International transactions are plagued with informal trade barriers such as information costs and cultural barriers. In addition to formal trade barriers such as transportation costs and tariffs, the presence of people with the same ethnic or national background on both sides of a border may alleviate these problems, as confirmed by the growing empirical literature (Combes, Lafourcade & Mayer, 2005; Gould, 1994; Head & Ries, 1998; Peri & Requena-Silvente, 2010; Rauch & Trindade, 2002). Immigrants can also stimulate imports to their new country of residence by purchasing goods from their homeland. This "ethnic trade" or "nostalgia trade" consists mainly of foodstuffs but also includes films and music,

reading material, utensils and dishes, ornaments and textiles and clothing; goods that in principle, have more difficulty penetrating international markets than other types of exports.

- Diasporas may facilitate the domestic firms' access to technologies and skills through professional associations, temporary assignments of skilled expatriates in origin countries, distance teaching and the return of emigrants with enhanced skills. Since the reconsideration of migration as a form of "brain circulation," there has been a growing body of evidence on how migration could be a mechanism for cross-national knowledge diffusion (Saxenian, 2000). The Diaspora can contribute to knowledge creation and diffusion by acting as a conduit for knowledge and information flows back to the sending country (Agrawal, Cockburn & McHale, 2006).

- Recent literature has established a causal relationship between the size of Diasporas and bilateral flows of foreign direct investment to the migrants' homeland (Docquier & Lodigiani, 2010; Kugler & Rapoport, 2007). Migrant networks facilitate cross-border information flows, increasing the degree of familiarity between home and host countries. Just as migrants may have a taste for commodities that are produced in their home country, they may also have a home bias for their investments decisions.

- Diaspora networks can also help to decrease asymmetry of information through two channels, namely:

1. migrant communities in the destination countries can provide investors with information regarding the tastes of consumers in their country of origin and signals about the quality of labour, the work ethic and the business culture that exists in a particular destination (Kugler & Rapoport, 2007) and
2. Diaspora networks can have an indirect effect on investment as they may have knowledge about investment opportunities, information about regulations and procedures, or familiarity with language and customs that can decrease the transaction costs that are associated with cross-border investment.

In addition, as managers who are employed by multinational enterprises, some Diasporas have influential roles in the foreign-market entry decision-making process,

often encouraging their employers to at least investigate the possibility of investing in the Diaspora's country of origin. An increasingly popular way in which Diaspora scan stimulate economic development is by investing their capital in existing businesses and/or setting up new ventures in their countries of origin. In some cases, these investments are made by Diaspora foreign direct investors at arm's-length (i.e. without the return of the Diaspora member in the home country), while in others by Diaspora entrepreneurship or return migrants (Riddle, 2008 cited by Boly, Coniglio, Protaand Seric, 2014:4).

These investments can be particularly important in capital scarce developing countries, where relatively weak institutions, social and political risks, inadequate infrastructures or other less-attractive structural characteristics may discourage foreign investors (Riddle, Brinkerhoff & Nielsen, 2008). Diasporas, on the contrary, may be more likely to invest in economies that are perceived as risky, as they have better knowledge of the home economy and a denser network of relationships compared to other investors. They are often important first-mover foreign investors into uncertain political and economic climates (Gillespie, Sayre & Riddle, 2001).

They are driven by both pecuniary and non-pecuniary motivations for investment: Diaspora members can also be motivated by altruistic feelings of homeland duty and obligation and by a perceived ethnic advantage. The economic benefits of this type of investment go beyond the immediate influx of capital. As shown in a recent research paper, for example, Diaspora foreign direct investors are more likely to establish connections with local suppliers (backward linkages), than typical, non-Diaspora foreign investors (Amendolagine, Boly, Coniglio, Prota & Seric, 2012).

Existing research concerning this specific topic is scant and most of the current work is theoretical or based on anecdotal evidence. Rigorous empirical evaluation of Diaspora firms' development potential is required. If home country exporters are successful in exploiting the Diaspora market, they can move beyond it to tap other markets. In this case, Diasporas serve as a bridge to wider markets. Beyond merchandise trade, the presence of Diasporas also stimulates the export of services, especially international tourism (Boly, Coniglio, Prota &Seric, 2014:4).

The brain drain crises can also be seen as a process on which Africa can theoretically capitalize. Virtually all of Africa's major export sectors are struggling to compete in world markets, yet without any policy effort, Africa has demonstrated its competitiveness in the training (or "production") of doctors and nurses. Such exports allow Africa to bypass the formal trade facilitation challenges (from the world trade organization), that hamper exports.

The mobility of highly skilled labour is associated with a number of positive feedback effects, as skilled emigrants continue to affect the economy of their country of origin. The main benefits are associated with the remittance of income, the knowledge and skills that are acquired by returnees and spill-over effects when migration increases the urge to obtain higher education, increasing the stock of education in the source country with only a proportion of this accumulation of skills "lost" to out-migration.

Wimaladharma et al. (2004) hold that one of the advantages is that unlike aid or private investment flows, they reach the poor directly and the poor decide how the money is spent. The authors posit that while capital flows increase during favourable economic cycles and decrease in tough times, remittances appear to react less violently and show remarkable stability over the worst economic periods. For example, remittances to developing countries continued to rise steadily, especially during 1998 – 2001, a period that was characterized by a decline in private capital flows in the wake of the Asian fiscal crisis. Billions of dollars are sent back to Africa each year from the Diaspora around the world and in some cases, this makes up a sizeable chunk of the home country's GDP.

It also helps to reduce poverty and improve standards of living (Ellis, 2003:2). This way of thinking has some merit, as migration itself requires resources and the greater the distance, the higher the initial investment that must be made.

This also exonerates possible indirect benefits to the poor (more employment and more cash in circulation), which occurs when some members of their communities receive and spend remittance income from relatives in cities or abroad. The literature identifies the negative and positive attributes of migration from the roles that migration can perform in reducing the vulnerability and poverty of the resident group, as detailed above (Ellis, 2003:8).

The difficult experience of being a migrant is partly created by public discourse and policies, both internally and internationally, which result in migration being viewed in negative terms due to the media narrative. These are susceptible to reversal by policy changes, which specifically target the protection of migrants' rights and raising their social status. Other pessimistic discussions about migration are quite often found to be based on misunderstandings about livelihood strategies or failure to take into account the cumulative and spread effects of remittance income (Nybergetal., 2002).

A more accurate understanding of the roles of migration can be achieved by taking a livelihood approach with emphasis on assets, activities and outcomes within vulnerability and institutional contexts. Migration is seen to contribute positively to the achievement of secure livelihoods and to the expansion of the scope for poor people to construct their own ways out of poverty. Migration cannot be isolated from the conditions that caused it to occur, its effects on those that engage in it and those left behind and the possible effects that it can have on opening a path out of poverty, closing or widening social and economic differentials, or some combination of both those outcomes.

For the purposes of this thesis the researcher holds that migration is a social process and not merely a matter of economic decision making (Kothari, 2003).
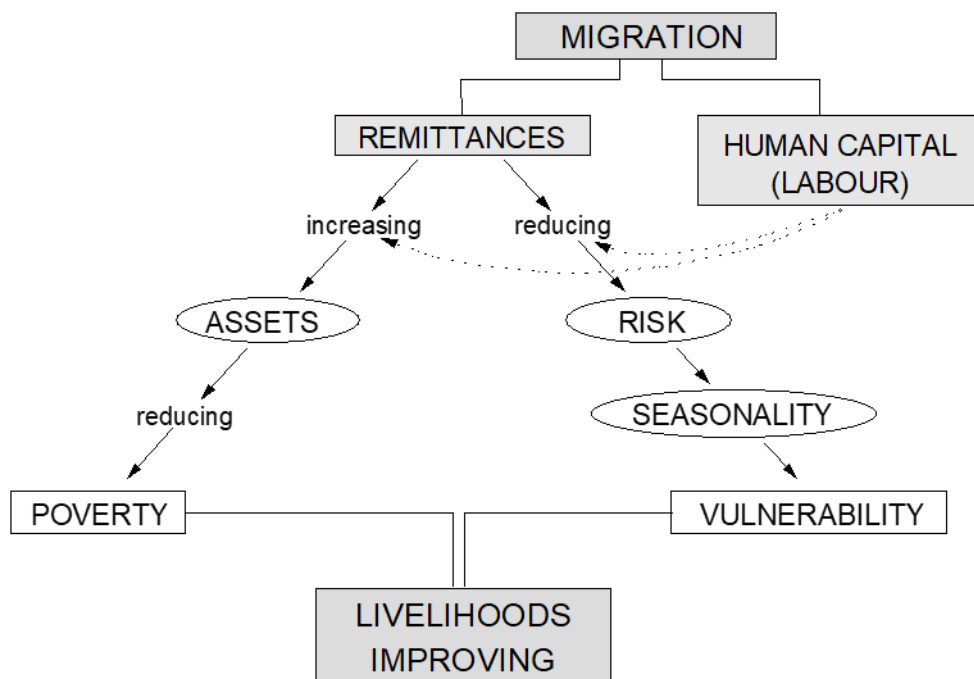


**Source:** Ellis 2003

**Figure 2.2: Connecting Livelihoods to Migration and Poverty Policies**

Having materialized the initial task, the thesis then makes policy linkages upwards and outwards: from the micro level of the family or household, to the macro level of the national economy and to factors that determine the movement of labour within countries and internationally. What can be traced upwards can also be retraced back downwards so that the overall intention is to provide an integrated framework within which policy impacts on migration can be traced back to the livelihood and poverty effects that they consciously or inadvertently set in motion(Ellis 2003:8). This overall scheme is illustrated in Figure 2.3 below.
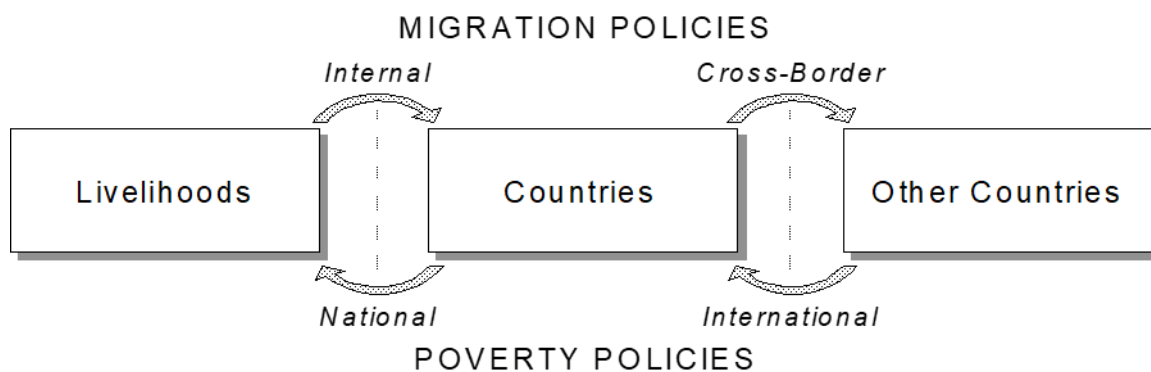


**Source:** Ellis 2003

**Figure 2.3: Connecting Livelihoods to Migration and Poverty Policies**

In dealing with migration, writerssuch as De Haan (1999) assume a positive narrative from the outset regarding the role that migration can perform in improving livelihoods and reducing poverty. This is not to say that there are never any downsides to migration; rather, that the positive balance of arguments found in recent migration literature is persuasive, and adverse factors are susceptible to being addressed by policy. Human history has proven time and time again that mobile populations are the norm, not the exception.

In the immigrant's country of origin, escalating desires for things like better education and bigger homes, taking care of families and improving economic standards, help to drive the remittance. Ironically, the poorer the emigrants are, the more money they send home, as there is enormous social pressure to send money home. Remittance can also have a less positive effect on the country of origin's economy. Experts theorise that the money allows poor countries to postpone basic decisions, which

concern economic management such as reforming their tax collection system and building decent schools (Follow the Money, 2005).

It is clear that remittances from expatriate citizens can substantially boost a country's economy, at least in the short term. The contributions of a foreign, skilled work force to economic growth and achievement in the receiving country cannot be ignored, in particular, contributions to research innovation and entrepreneurship. An example of this is the number of foreign-born US Nobel prize winners, innovators or creators of global high-tech companies such as Intel and eBay (Cervantes and Guellec, 2002).One could posit that if migrants are given the opportunity, they can serve the country in many ways.

### 2.7.1   Remittance figures of selected countries

The African continent is a "latecomer" in the global geography of migration flows, but the number of Africans that reside abroad is growing rapidly.  Conservative estimates placed the African Diaspora at 30.6 million in 2010 (World Bank, 2011a). The estimated figures are likely to significantly underestimate the real stock of migrants, given the heterogeneity of the definition of migrant across countries and the unobserved population of irregular migrants. About 50% of the African Diaspora is located within the African continent; in particular, intraregional emigration accounts for almost 65% of total emigrants in sub-Saharan Africa (Boly, Coniglio, Prota&Seric,2014:4).

Bathseba (2007) holds that remittance is the most visible outcome of migration from developing countries on economies, and is largely dominates the discourse on Diasporas and development. On average, from 1990-2003, the top five remittance sending countries were the USA, Saudi Arabia, Switzerland, Germany and France.

The recent increase in outmigration has generated a substantial surge in remittance inflows: during 1990–2010, remittances quadrupled, reaching nearly $40 billion (2.6% of Africa's gross domestic product) in 2010, while more than half of this financial windfall is flowing into sub-Saharan Africa. Financial flows generated by the Diaspora are the continent's largest source of income after foreign direct investment (FDI). In

terms of uses of remittance income, a significant proportion is typically used for human capital accumulation, namely health and education expenditures.

Household surveys conducted by the World Bank in Burkina Faso, Kenya, Nigeria, Senegal and Uganda indicate, for instance, that the share of international remittance income spent on health and education ranged between 10% and 32%, albeit with some variability across destination and source regions. Another 20% of international remittance income is spent on physical capital investments such as buying land or equipment, initiating a business, or improving a farm (World Bank, 2011). Much less is known about the flow of foreign direct investment by the Diaspora into African countries (Boly, Coniglio, Prota&Seric, 2014:6).

The same authors found that the share of Diaspora investment relative to domestic private investment and foreign direct investment is 3% for the country as a whole, while in Addis Ababa, where most Diaspora investment tends to be concentrated, about 10% of total investments are accounted for. Given the extent of African Diaspora savings, Diaspora investment can be expected to be large and growing. The estimated Diaspora savings for sub-Saharan Africa is $30.4 billion (3.2% of the gross domestic product of this area), and for the entire African continent is nearly $53 billion (Ratha & Mohapatra, 2011).

Taking this fact into consideration, its relevance and potential role in fostering economic development, there is growing attention from some African governments and international organizations in mobilizing Diaspora resources. Remittance receiving countries in absolute terms are India, Mexico, the Philippines, Egypt and Turkey. Remittance receiving countries relative to their economies are Lesotho, Tonga, Lebanon, Samoaand Jordan,with remittances ranging from about 20% to more than 40% of their GDP. Remittances that were received by region in 2002 were as follows: Latin America and the Caribbean - US $25 billion (1, 5% of GDP);the Middle East and North Africa US $14 billion(2.2%of GDP) and sub-Sahara Africa US $4 billion (1, 3% of GDP) (Bathseba, 2007).

Thus, remittances and foreign exchange reserves offset some of the output losses or economic shocks that a developing country may suffer from the emigration of its highly skilled workers.

Remittances are financial flows into households that do not require a quid-pro-quo in economic value (Addison, 2005). They are usually valued as private financial aid that flows directly into the hands of households and the fact that they tend to be counter cyclical suggests that they often serve as an important source of both income and consumption-smoothing strategies for vulnerable poor and non-poor households. Similarly, literature that analyses the impact of remittance flow indicates that these flows are beneficial at all levels, from individuals to households, to local communities and national levels. This indicates that if well managed, it can help to reduce poverty at these four levels.

Buch and Kuckulenz (2002) also report that worker remittances are increasingly important in constituting a mechanism for the transfer of resources from developed to developing countries, the second largest source behind foreign direct investment. The point that migrants may increase remittances in times of economic hardship, especially in low-income countries where their relatives live at close to subsidence levelsand maybe dependent on remittances as a source of income. Further economic downturns may also encourage workers abroad to begin to transfer funds to families that are left behind.

The proponents of the convergence school of thought view brain drain from a functionalist perspective. They hold that human capital investments, which are made in the high-level migrants, is partly recovered through remittances (Ammassari & Black, 2001; Sako, 2002;Todisco et al., 2003). Although only a limited number of economic studies have been conducted on the effects of migrant remittances on African countries, it is emphasised that while emigration countries lose human resources in the "best and brightest" (Ammassari & Black, 2001:13), they receive something in return.

Todisco et al.(2003) hold that remittances can also be regarded as a form of hidden aid, which the developed world devolves to poor nations. Some authors have likened a skilled immigrant obtaining a visa to work in a rich country to winning the lottery, because the income gains from migrating are so great (Todisco et al.,2003).

Whatever the approach, the gains for the few that are fortunate enough to leave need to be weighed against the costs to their countrymen who are left behind. The

remittances' economic impact is considered to be beneficial at both the macro and micro levels. These sentiments are corroborated by Ammassari and Black (2001:13), who also contend that the value of migrant remittances can significantly exceed national export earnings. Available estimates indicate that in recent decades, the global volume of remittances has grown from less than $2 billion in 1970 to $70 billion in 1995, passing by far the official development assistance provided (Zeleza, 1998:19).

Some economists consider remittances as the most reliable and broadly-based source of financing for the developing world, effectively turning it into a new form of foreign aid. A report by SIRDC (2004:74) claims that a beneficial aspect of the brain drain, if properly managed, enables emigrants to send part of their earnings back home in the form of remittances, thereby providing the home country with a source of valuable foreign currency. It has also been observed that the remittance can have a ripple or multiplier effect on the economy as a whole.

Those who argue against the issue of remittances often emphasise their unproductive nature (Ammassari & Black, 2001). According to them, not only are remittances insufficient to compensate for human capital losses, but they also increase dependency, contribute to political instability, engender economic distortions and hinder development, as they are unpredictable and unreliable and encourage the consumption of goods with high import content.

Like many other scholars, Ammassari and Black (2001:14) hold that remittances fail to enhance development, as they are not spent on investment goods, but are mostly used for unproductive purposes such as housing, land purchases, transport, repayments of debts, or to a lesser extent, wasted on conspicuous consumption, or simply saved as insurance and old age pension funds. Emeagwali (2004:3) also spoke out against remittance, emphasizing the need to eliminate poverty in Africa and not merely reduce it by sending money to relatives. He reiterated that in any country human capital is much more valuable than financial capital, as only a nation's human capital can be converted into real wealth.

He continues by saying that real wealth cannot be measured with money, yet people often confuse money with wealth, claiming that money alone cannot eliminate poverty in Africa, as one million dollars is a number with no intrinsic value. Under the current

status quo, Africa would still continue to be poor if we were to send all the money in the world there. When you give your money to your doctor, that physician helps you to convert your money into health – or rather wealth. Money cannot teach your children, teachers can. Money cannot bring electricity to your home, engineers can. Money cannot cure sick people, doctors can. When the medical doctors emigrate to the United States, the poor are forced to seek medical treatment from traditional healers, while the elite fly to England for their routine medical check-ups (Emeagwali, 2004:2).

Other studies are also taking the same line and presenting the same contradictory conclusions, namely that remittance has both negative and positive impacts. Zeleza (1998:19) correctly points out that "[T]he reality is somewhere between these two extremes". It all depends on the context, countries and communities involved. Briefly, the relationship between migration and development is multidimensional and complex, because in such circumstances only the rich benefit at the expense of the poor.

## 2.8    THE ROLE OF EDUCATION AND LANGUAGE IN SKILL MIGRATION AND BRAIN DRAIN

Shulman Mesa-Bains (1993:87) holds that from an educational standpoint, the brain drain affects education in several ways. First of all, in the country of emigration (brain gain), these new workers and families would have to adjust to a new society that requires classrooms that recognize diversity and uniqueness. It is important that classrooms promote multiculturalism and cultural diversity.

An example of a website that helps to promote tolerance and acceptance is that of the United Nations' Cyber School Bus. This website allows students to learn about various cultures in a variety of different languages.

It prepares students to respect other cultures and develop a skill set that is required in today's global marketplace. The gaining country also increases its intellectual capital and pool of experts. These experts can conduct lectures at universities in person by leveraging communication technologies such as SKYPE or Windows Messenger and lecture at videoconferences around the world (Shulman Mesa-Bains, 1993:87).

Schiff and Wang (2009) similarly posit that education has a positive effect on

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productivity growth, which is several times larger for small rather than for large states. The brain drain's negative impact on productivity growth in small states is a multiple of that for other countries. Meanwhile, Muula (2005:24) holds that are as on for Africans and African countries losing their HSPs is that most, if not all developing countries, train their professionals in languages and curricula that are suitable to the western world and are globally accepted. This does not take our own needs and circumstances into consideration. This may be as are sult of Africa's colonial history, during which Africa was occupied and shared by the French, British, Belgian and Portuguese. It has, therefore, been a tradition in African training schools to have a curriculum similar to those of previous colonial masters in order to be considered to be of good quality by the west and not necessarily to respond to our own immediate needs.

Should Africa see the need to stop the migration of its best skilled men and women, then there is a need to review its education systems, objectives and curricula. An example of the above statement is the medical curricula in Zambia, Malawi and Zimbabwe that were organised and colonized by Britain, and are hence not only similar among themselves but also similar to that of the United Kingdom, their former master. A physician who is trained in these countries will not have difficulties in assimilating and adjusting in the UKand as we want to slow the pace of migration, this is an area to look into (Muula, 2005:24).

This mirroring of curricula with previous colonial masters is a relic of colonisation, which manifests in an inferiority complex. This is one of the reasons we see in most African countries that there is a general perception that if someone achieved a qualification in a foreign country, especially if it comes from, or looks like it comes from, past colonial powers, it is regarded as being of a superior quality to the local qualification. Another issue that should be considered is language. It is globally evident that when countries use their home languages, local people would be more confident in the manner in which they communicate and generate a body of knowledge that uses local idioms to achieve the results we see today (Chimanikire, 2005:14).

## 2.9    STRUCTURAL ADJUSTMENT PROGRAMMES AND THE BRAIN GAIN

Several authors have singled out globalisation, the IMF and the World Bank as the

instruments and institutions that are used by imperialists to re-colonise Africa (Oduor, 1994;Sankore, 2005;Zeleza, 1998).Gwaradzimba and Shumba (2010:219) opine that historical and continued economic exploitation of Africa has undermined the development of economic and social infrastructure, normalised poverty and forced many African intellectuals to seek job satisfaction and a higher standard of living elsewhere.

According to Oduor (1994), the goal of re-colonising the African continent can be achieved by under-funding African institutions by means of massive cuts in subsidies to education that the IMF and World Bank impose on African governments as part of their conditions for new loans or for debt repayment scheduling. Oduor (1994) also holds that with the introduction of SAPs in most African countries, academics find themselves among the worst paid in the world. As academics also wish to make a better living, they have to move on to other places where they can earn a better life. Besides better living conditions, academics in the Diaspora also get international exposure by their interactions with professionals from other parts of the world (Gwaradzimba & Shumba, 2010:219).

Structural adjustment programmes (SAPs), which are designed to combat Africa's economic problems, have actually increased pressure on the educated and skilled to emigrate. By forcing governments to lay off public sector workers, open their economies to foreign competition and lower wages, SAPs have compounded the plight of Africa's middle classes, whose living standards have declined drastically, hence the brain drain from developing to developed countries is becoming an issue of major concern internationally.

As mentioned several times already, brain drain is not a new phenomenon, but in the past it did not received this much attention or controversial treatment and rarely appeared on the political agenda. Several factors have contributed to an increasing awareness of the problem and increasing attention to creating possible counter measures. France and the United Kingdom, which host a number of students and professionals from developing countries, have both conducted official studies on highly qualified immigrants and the dynamics of their migration (Chimanikire, 2005:14).

## 2.10　THE ROLE OF SPORT IN SKILL MIGRATION AND BRAIN DRAIN

It is well known today that global migration affects levels of human capital. If viewed in the short term, the migration of skilled workers leads to a direct loss of human capital for the countries sending migrants. In the long term, it may induce human capital gains. Migration increases personal incentives to acquire education. Remittances allow migrants 'relatives to afford to educate their children. Some of them return to their home countries after a while, with new skills that they acquired abroad. Depending on the circumstances, the net impact of skilled emigration on human capital can either be negative or positive and this is referred to as either "brain drain" or "brain gain. In the case of sport, the terms 'muscle drain or muscle gain 'have been coined (Swinnen and Vandemoortele, 2008:6-7).

The globalisation of a football players' market has been blamed for causing "muscle drain" in less developed countries, depriving them of their most talented players, but benefiting professional leagues in rich countries. Unlike most skilled migrants who can only work in one country at a time, football players can play for their home country's national team, while being contracted to a foreign country's clubs. In this way clubs and their respective leagues benefit and national teams are not deprived of their talents, but they actually stand to benefit from the additional skills that are acquired by their players who train in top European leagues (Swinnen and Vandemoortele, 2008:6-7).

Various analysts indicate the concern by some national teams that European clubs do not always allow their foreign players to take part in international competitions, for example the Africa Cup of Nations, because it erodes their capacity to perform better in international competitions. This can lead to the poor performance of some developing countries in world sport events. The contrary is also true as a number of countries have improved their performances due to their professional players bringing anew quality game to international matches (Andreff, 2004, 2009).

Ad hoc observations assume that sending countries have done far better, not worse, since the beginning ofthe migration of their football players to wealthy countries' leagues. In the past decades African teams have performed increasingly well in World Cup stages. Despite the fact that several European clubs employ Ghanaian players, Ghana reached the quarterfinal in the 2010 World Cup. It worked to Ghana's advantages having their players in international clubs. This is an important achievement for an African country, with only two

precedents: Cameroon in 1990 and Senegal in 2002. The researcher's main objective with this is not to rigorously analyse the impact of football player migration on the performance of national teams but to highlight the possible advantages and disadvantages of brain drain and use football to guide countries towards utilising the full potential of migration as illustrated by the number of Nobel prize-winners in the USA who were not born there.

Empirical studies have shown that demographic, economic, historical, cultural and climatic factors are important determinants of global football performance (Hoffmann, Ging & Ramasamy, 2002; Houston and Wilson, 2002; Torgler, 2006; MacMillan and Smith, 2007). Recent contributions have found new explanatory factors such as linguistic heterogeneity and national institutions (Leeds and Leeds, 2009;Luiz and Fadal, 2010).

This evidence assumes that while developing countries' football clubs may experience "muscle drain", their national teams experience "muscle gain" and the origin countries' economies benefit from the money and skills transfer. The number of migrants in the European and North America principal leagues in term of economic standard is high, particularly amongst the main leagues. There are a number of instances where clubs have played a match without a single native player in the team. This pattern of migration varies considerably depending on the sport code.

For example, in (ice) hockey, players from eastern Europe migrate to the US and Canada, while in baseball Central America is the main supplier of the US and Canada. In basketball some European and Latin American players are absorbed in the US NBA.At the same time, the inverse occurs for many US players who cannot make it in the NBA and play in European leagues. With soccer, Europe is the main migration destination from the rest of the world. Over the past decades the migration of African football players to Europe has grown exponentially (Swinnen and Vandemoortele, 2008:6-7).

Studies on the impact of migration patterns can be divided into two groups, namely winners and losers (or positive and negative effects). Most of the literature on the migration of athletes or sports players tends to focus on what are claimed to be negative implications. This negative impact could be referred to as "muscle drain" (analogous to the literature on the "brain drain").It refers to the perceived negative effects on education and the competitiveness of the local sports system. Other related negative effects are assumed to be low wages paid to players from developing countries, which in reality, if compared to what the player was

earning at his previous club at home, is a highly competitive salary. The illegal nature of migration and transfers are also identified as well as the lack of transparency surrounding this practice (Andreff, 2004).Several authors to refer to this as a "modern form of slavery". While there appears to be considerable ad hoc evidence regarding these effects, (including on illegal activities and the lack of transparency in international transfers), there is in general, limited representative evidence on these issues compared tothe benefits.

In contrast, there is an extensive amount of literature on the effects of general migration on development and poverty, which is generally based on much better data and evidence, positing different effects of migration. Firstly, the impact of international remittance generally has a positive effect on development (Adams, 2003). It reduces the level, depth and severity of poverty in less developed countries, as a substantial proportion of the income from remittance goes to poor households, although not necessarily to the most impoverished(Adams, 2003). Another positive impact is the investment in education and in entrepreneurial activities that assists to raise the level of human capital in a country as a whole (Edwards and Ureta, 2003; Yang, 2005; McCormick and Wahba, 2001). While little is known about the impact of remittance from sports remuneration, given the astronomical figures the players are paid, there is no reason to believe that these effects would be any different.

Recent studies, (not focusing on migration in sports),have concluded that although international migration involves movement of the educated and uneducated, international migration tends not to take a high proportion of the best educated, aside from a few labour-exporting countries. The brain drain is generally limited (Adams, 2003). Secondly, migration of the educated or uneducated from a developing country increases the incentive to acquire education, resulting in brain gain. In other words, the dynamic investment effects reverse the static, depletion effects of migration on schooling. In summary, taking into account dynamic incentive effects, the net impact seems to be "brain gain"" (Ozden and Schiff, 2006).

These findings seem to be in conflict with arguments that postulate that 'muscle drain' in sports undermines the sporting capacity of less developed countries. It is said to divert the most talented sports persons, leaving the developing countries with the costs of their education without the possibility of regaining this investment in human (or athletic), capital. This muscle drain is assumed to erode the capacity of the home country to use its most

talented athletes in international competitions and in some instances this is used to explain the "poor performances of developing countries in world sport events" (Andreff, 2004).

There is no empirical evidence to support these theories and they do not appear to stand up to rigorous scientific analysis. Most analyses ignore any dynamic effects that seem to occur in developing countries' sports sectors, where investments in local training facilities have grown with the increased success of the developing country's players in developed countries' sports leagues, although there is no systematic evidence to support this. Developing countries seem to have fared better, not worse. For example, in the past three decades African teams have improved their performance and are increasingly reaching the later stages in the soccer World Cup.

Thirdly, the creation of sports facilities in schools and the initiation of sports schools, with the unique and clear objective of preparing national quality players to play in European leagues in countries with better sports leagues and facilities, is the subject of much debate. While many of these schools are successful, the models are criticized for not distributing the gains equally, (often European owners are perceived to capture a disproportionate share of the financial benefits), leading to a decline in education enrolment, which creates social problems (Darby, Akindes and Kirwin, 2007).

Fourth, the search for African players by European football clubs is held to be an example of wage dumping by gaining quality players at minimal cost and paying them less than their European or American counterparts (Poli, 2006). These discussions are similar to issues in the general migration literature with migrants taking over jobs at lower wages in the host country, a subject that is well researched in other sectors of the economy. One of the world's leading experts, George Borjas of Harvard University, claims that there is no clear evidence either way; and that despite mass emigration from poorer nations in recent years, most studies show little on nor impact on wages in the US (Aydemir and Borjas, 2007).

Finally, while internationally remittances are an important source of capital, and particularly so in some less developed countries, it is unclear whether the remittances of migrated sports players are sufficient to have a significant impact on the development of the sending countries. On the one hand, the number of players that migrate is small compared to total employment but sports migration has grown rapidly and incomes are generally much higher in Europe or in the US than at home. There is no conclusive and substantive evidence and

one can only speculate or draw on the ad hoc cases observed, which indicate the benefits that in some instances are not tangible or cannot be expressed in financial terms, such as the increased confidence and pride of the population of the host country.

Szymanski (2002) holds that organizing the World Cup will not necessary boost the economy or bring economic growth, although government expenditures do improve the general well-being of its citizens, as these intangible effects. Psychology literature evidence indicates that happier people perform better, in general and also earn more income. Factors such as self-esteem and optimism that affect happiness also have positive effects on peoples' performance in the labour market. For the World Cup, the effect of happiness could be particularly relevant for South Africa, as these factors matter more for the poor.

The extent to which the World Cup stimulates a positive attitude amongst people in South African society matters. It is important to ensure that impoverished local people have access to the games. In this light FIFA's initiative, supported by local organisers, to make tickets cheaper and therefore more readily accessible for nationals, is a step in the right direction (Swinnen &Vandemoortele, 2008:7).

Swinnen and Vandemoortele (2008:6-7) contend that in North America and Europe, sports are increasingly being considered as important for theeconomy. Sport has created an industry that employs about 2 million people amongst the 15 member countries of the European Union. That is 1.3 percent of the overall EU employment contingent.

In relation to the debate about positive and negative effects, both countries gain in the short term, while the host country (destination), gains in the long term and the sending country acquires medium term gains. There are both tangible and intangible benefits. An example is when Argentina's team returns home, but there are still Argentines playing in the World Cup, or when Brazil has had been eliminated, but a Brazilian may still get his hands on the World Cup trophy. As European politicians debate limiting immigration, many of their national teams have been taking to the field in a World Cup tournament peppered with immigrants, or children of immigrants. In this way they reflect the countries that they represent, which makes them lightning rods for those who do not approve of multiracial countries.

Another example is Germany's World Cup and its national team who had five strikers who appeared for Germany in the competition. Two, namely Lukas Podolski and Miroslav Klose,

were born in Poland. They came to Germany as children from a country that was part of, or had recently left, the Soviet bloc. Another, Oliver Neuville, was born in Switzerland. A fourth, Gerald Asamoah, is the first black to play for the United Germany. The only one of the five born in Germany is David Odonkor, son of a Ghanaian father and a German mother.

Mauro Camoranesi, the Italian midfielder, continues the tradition of Argentines of Italian descent who play for the country of their parents or, in this case, grandparents. Deco, a Brazilian-born midfielder, qualified for Portuguese citizenship through residence after playing in the Portuguese league. His manager, Luiz Felipe Scolari, is still Brazilian; David Trézéguet of France is the embodiment of the long tradition of such movement. His father, Juan, came to France to play professionally and married a Frenchwoman. David was born in France, but moved to Argentina at the age of 2, when his father returned home.

He began his professional career there. Now he plays for a team that has again become the centre of the debate on ethnicity. Odonkor is the visible face of a changing Europe. The German Federal Bureau of Statistics reported that 15.3 million of Germany's 82 million residents were immigrants or descendants of post-World War II immigrants. Half of them hold German passports. Odonkor's counterparts include Sweden's Henrik Larsson, son of a Swedish mother and Cape Verdian father and Theo Walcott, son of a Black English father and a white English mother, among a growing number of players of mixed origins who represent the England team. These are the children of immigrants. Apart from the far-right parties, few dispute that they should play for their countries of birth. For more recent arrivals, the sense of identity can be trickier.

Valon Behrami, a refugee, had the option of playing for Albania, but not for his native Kosovo, because, as he says, Kosovo is not a country. He opted for Switzerland, the country where he grew up. Nearly 20 percent of Switzerland's seven million people were born abroad. Behrami, who plays for Lazio in Rome, talks about tolerance in Swiss schools: "This is very important," Behrami said, as he still feels like an immigrant and told The Associated Press, "As a child, it's not so easy when you're a foreigner". Behrami's story is told in a booklet that was distributed in Zurichschools. "Our national team can teach us how different cultures can live together in our country," the introduction reads.

There was a decrease from five when the Cup was played on U.S. soil in 1994 to only three in Germany in 2006. Practically all the U.S. stars, Landon Donovan, Jozy

Altidore, "Oguchi" Onyewu and Tim Howard, are the children of immigrants or immigrants themselves. Despite an ever-growing tide of immigration from soccer-frenzied Latin America, Hispanic representation in national sides has not kept pace (Zwick, 2011).

## 2.11    CHAPTER SUMMARY

After an in-depth study and literature search, the above chapter considered an international overview as a means to understand factors that affect the origin and cause of brain drain and migration, as well as their positive and negative effects. The chapter also noted that immigration has undergone various phases; the first occurring during slavery, the second during colonialism and the liberation struggle and the third during the aftermath of liberation. Two kinds of brain drain exist in postcolonial Africa. The first is 'indirect' brain drain, which has direct impacts and requires local labour to mine minerals and export them to previous colonial masters for next to nothing and this amounts to economic exploitation.

The second is 'direct' by way of trained African experts who are poached to work in the west because the west can offer what talented Africans seek, namely better salary packages, better conditions of employment, a predictable and growing economy, safety and security, quality healthcare and education. To ensure that the trend continues into the foreseeable future, African states are denied technical knowledge. Research migration findings indicate that in certain instances, well-educated and skilled migrants are able to accomplish positions of high status in industrial society, including sport, which allows the individual to amass financial capital and this capital is consequently transferred, mainly through remittances to families and friends and investments back home. This view of the theory assumes that returned migrants will most probably invest their capital and advanced knowledge. The next chapter deals with measures to counteract brain drain and turn it into brain gain.

**CHAPTER THREE**

**AFRICA'S BRAIN DRAIN AS ALTERNATIVE SOLUTION TO SOUTH AFRICA'S SKILL SHORTAGE: TURNING BRAIN DRAIN INTO BRAIN GAIN**

## 3.1    INTRODUCTION

There is no straight answer to the question of brain drain advantages and disadvantages and positive and negative impacts due to its complexity. Scholars from around the world have tried to provide reasonable responses, while they are mindful of its implications for domestic politics where they live. One thing that does stand out is that they believe that there is no skills crisis.

According to Wong and Yip (1999:1), international migration of professional skilled workers has long been an important topic for economists and government planners in many countries, especially for countries losing workers and who are concerned about the possible adverse effects on economic growth, education, income redistribution and welfare. All these are based on brain drain being the out-flow of one of the scarcest resources in many countries, namely human capital.

There has been limited research into the linkage between brain drain and economic growth. Scarcity of skills means different things to different people, depending on their stance. Armchair bureaucrats do not have the need to panic when the economy retracts. In the case of South Africa, Croix&Docquier (2012:17) examined the connection between high-skilled emigration and economic development. Although causality originates from two directions, those links that have been investigated to date only consider a single direction.

- Firstly, the primary literature is essentially empirical and endogenises the size and composition of migration flows. It indicates that a lack of economic growth and high levels of poverty motivate people to flee their own country seeking better opportunities elsewhere. Highly skilled workers were found to be far more responsive to economic push-pull factors compared to workers with lower skills.

- A second strand of literature focuses primarily on the ex-consequences of brain drain on the economic performance of sending countries. Earlier studies

referred to this as the 'traditional' literature that considered brain drain as a curse for the country of origin.

For example, Bhagwati (2003)andCroix &Docquier (2012:17) citing Hamada (1974) and McCullock (1975), emphasize the negative effects of brain drain for less developed countries. Later, relying on the existence of externalities connected to human capital, the endogenous growth framework offered an appropriate environment to reinforce the early more conservative view.

More recent literature assumes that the emigration of skilled workers can induce additional investments in education in sending countries, resulting in positive feedback effects. In these models the endogenity of emigration probability is usually ignored (Croix &Docquier, 2012:20).

Tannock (2007:3) holds that in the 1990s Nelson Mandela, then president of South Africa, condemned health workers for leaving the country. He called them "cowards and unpatriotic", and a "fundamental betrayal of the nation". According to Tannock citing Crush (2002:156), the former president forgot about the thousands who remained behind, although a number of them changed profession and moved to other sectors.

Recent media reports claim that the South African brain drain is reversing and that highly-skilled South Africans have been returning in large numbers since the onset of the global financial crisis in 2008. Examples of these news reports include articles that proclaim: "Expertise flows back into SA as brain drain is reversed" and "Returning expatriates – South Africans return from abroad" (Bisseker, 2014 cited by Höppli, 2014:3).

The SABC (2014) reported in mid-January: "Brain drain shows signs of reverse". Estimates by Adcorp (2014) indicate that there has been a net return migration of 359,000 highly-skilled South Africans since the beginning of the global financial crisis in 2008. The recent media reports about a reversal of the brain drain is good news for the South African economy, as it means that the country now gains more of the much-needed skills than it loses. The recent estimates imply that roughly one out of two

South African emigrants have returned since the beginning of the global financial crisis in 2008.

According to Höppli (2014:3), the number of South African born people overseas continuously increased between 2000 and 2010. From 2010 onwards, growth was slow, but still positive. The traditional five immigration nations (New Zealand, United Kingdom, Australia, Canada and the United States of America) continue to absorb the majority of South Africa's emigrants and host about three quarters of all expatriates. The strict immigration laws in these five countries favour highly skilled immigrants. This was confirmed by the available data on the skills composition of South African-born immigrants in these countries.

Based on the findings in this paper, the following conclusions have been made:

- Sizeable brain drain has taken place since 2000;
- Five countries absorb the majority of the highly skilled emigrants. Over 75% of all emigrants from South Africa have moved to one of the five traditional English-speaking immigration nations;
- The stock of South African-born persons in these five nations grew at a much slower pace from 2010 onwards compared to years before, implying that brain drain to these countries has slowed down, but not reversed;
- The stock of South African-born persons in the UAE and 17 other OECD countries makes up less than 25% of the total number of South African-born persons who are overseas;
- In most of these 17 OECD countries, as well as in the UAE, their numbers have been growing steadily since 2000. However, growth appears to have slowed down from 2010 onwards;
- The skills composition of the emigrants from South Africa who moved to the UAE or to one of the 17 other OECD countries is presumably less biased towards highly-skilled persons than in the traditional five immigration nations; and
- With less than 25% of the emigrants from South Africa and a lower average skills level, a reversal of brain drain largely relies on the return migration from the five traditional immigration nations.

Analysis of the development of the number of persons who migrated from South Africa to a total of 23 major migration destinations suggests that brain drain has not reversed since the onset of the global fiscal crisis in 2008 (Höppli, 2014:17).

From the above statement, it is clear that nationalism is being used as the starting and ending point of the brain drain discussion. The trigger of this renewed global brain drain has been the increase in both the absolute and relative number of skilled individuals who move across national borders. Biased economic reforms, deteriorated quality of life, political instability, as well as malaria and doomed economic prospects, push Africans to South Africa (Thomas, 2008:3).

Thomas (2008:3) holds that there should be renewed efforts to halt academic brain drain from Africa. He asserts that the emigration of academics from African universities constitutes one of the most significant obstacles to the continent's development. From 1 600 Zambian doctors in later 2003, only 400 remained in the country. There is no best way to address brain drain or the development of a country. Development requires highly skilled professionals, hence the need for additional measures to counteract brain drain and speed up socio-economic development (Thomas, 2008:2).

## 3.2 FOREIGN GOVERNMENTS' EXPERIENCES IN DEALING WITH SKILLS SHORTAGE ALSO EVIDENT IN SOUTH AFRICA

Sankore (2005:9) describes brain drain from Africa as "the intellectual desertification" of the continent. The brain drain in Zimbabwe has assumed political connotations but several doctors in Zimbabwe do not share this view,: "We are not being stolen; we are just looking for better wages and better standards of living, and no one can blame us for that" (Meldrum, 2003:1)

As more and more governments engage in a global war for talent, immigration laws in country after country are being increasingly and deliberately skewed in favour of the entrance of skilled migration, which has increased at a rate two and a half times faster than low skilled migration globally between 1990 and 2000. Approximately 23% of the USA's 77000 doctors licensed in 2002 were trained outside of the US, of which a total of 5334 came from sub-Saharan Africa (Thomas, 2008:3). In another extensive study that was conducted in 2004 to determine the origin of these medical graduates, it was

found that nearly 85% of Africans that trained in the USA originate from sub-Saharan African countries such as Nigeria, South Africa and Ghana.

The interesting thing is that 79.4% (4234) of these doctors where trained at only 10 out of the total of 57 medical schools. Africans lost 60,000 professionals between 1985 and 1990. A total of 50% of Kenyan graduates emigrate to South Africa, while 50% of the nurses and 90% of the doctors go abroad; twenty one thousand (21000) Nigerian doctors are currently in the USA (Thomas, 2008:3).

According to Gigaba (2006) citing World Migration (2005), there are approximately 200 million migrants in the world (equal to Brazil's population). There are 16.3 million migrants in Africa, 35 million in the United States and 5 million in Australia, constituting about 18.7% of Australia's population, while China's Diaspora is estimated at 35 million and India and the Philippines at 20 million and 7 million, respectively. There has been limited research that examines the linkages between brain drain, economic growth and scarcity of skills, which means different things to different people. It depends on which side of the fence they stand.

A study that was conducted by the Zimbabwean Scientific and Industrial Research and Development Centre (SIRDC) (2004:9) found that the US used higher salaries and special visas (HB-1 visa) to attract African professionals. As a result, just for each HB-1 visa, it is estimated that the US economy gains approximately US $100,000 a year from immigrants, allowing the USA and Canada to enjoy "brain gain", which in terms of educational costs is equivalent to US $46 billion that were saved by importing already-trained experts and technicians.

Also frustrated by the growing trend of brain drain, the South African Government has gone so far as to criticise Britain for "poaching" its skilled workers (SAMP, 2003:46). In the rural province of Saskatchewan in Canada, more than 50% of the doctors are foreign-trained and 1 in 5 of the 1 530 doctors there earned their first medical degree in South Africa. According to Kofi Annan, former UN Secretary-General, there is a clear need for international co-operation: "*There are no simple solutions nor easy choices to the brain drain problem*" (SAMP, 2003:9).

South Africa was particularly perturbed by Britain-based recruiters and accused them of targeting the country's best teachers in what the government referred to as "a crucial time in the nation's development". Since the late 1990s, more than 8 000 South African teachers have emigrated to Britain with the help of recruiting agencies (SAMP, 2003:46). Alpha Oumar Konare, the former president of the African Union, attacked the policies of developed countries of "selective immigration" that lure scientists and other skilled workers away from developing countries: "these policies amount to a 'brain poach' that hinders African development". "Industrialized nations took a 'one-sided' decision to 'loot' African countries of their brains, simply depriving Africa of its right to development" (Mouton et al., 2007:3-5).

The USA, for example, has the Green Card Diversity Lottery programme, better known as the DV programme, which is intended to encourage the immigration of skilled foreign nationals to the US. Currently, the annual worldwide quota is 50 000 immigrants. Under this lottery, it is possible to give more than 21 000 visas to nationals of African countries (OECD, 2003:116). Countries such as Ethiopia, Nigeria, Ghana, Kenya and Morocco have made extensive use of the DV programme (Oduor, 1994;Sankore, 2005).

Besides the British Highly Skilled Migrant Programme (HSMP), and the US Green Card Lottery there are other US visa programmes that target highly skilled individuals, some permanent and others temporary. The Immigration and Nationality Act provides an annual minimum of 140 000 employment-based immigrant visas (E-category). Outstanding professors and researchers fall into this category. The H-1B classification applies to persons in a specialty occupation that requires theoretical and practical application of a body of highly specialised knowledge, which requires completion of a specific course of higher education. The O-1 classification applies to persons who have extraordinary ability in education, sciences, business, arts, athletics or extraordinary achievements.

Unlike the vagueness of the Green Card Lottery that masks Africa's real intellectual and skills loss, the European schemes and in particular, the British Highly Skilled Migrant Programme (HSMP), are flagships that were introduced in January 2002 by the British government to allow "high fliers with exceptional skills", including Africans, the opportunity to live and work in Britain (Sankore, 2005:11). This scheme is based

on a criterion, which is more to the point. Based on qualifications, holders of PhDs score 30 points, MA, MSc or MBA holders earn 25 points and a BA or BSc scores 15 points. Spouses with degrees or equivalent professional qualifications and job experience earn applicants an additional 10 points (Sankore, 2005:11).

To cap it all, priority is given to professionals such as doctors who are entitled to work as general practitioners (GPs) in Britain. Such positions score 50 extra points, taking such applicants straight to the top of the list. The ultimate objective of the process, which is to "take the best and leave the rest", speaks for itself (Sankore, 2005:11). Literature has shown that international scholarship schemes that are organized by rich countries of the north are exacerbating the problem of brain drain, in particular in Third-World countries. These programmes are designed to entice the cream of the crop from Africa and other Third-World countries.

For instance, in 2004 Britain introduced the Science and Engineering Graduates Scheme (SEGS) that provide employment opportunities for a year after qualifying to non-Europeans graduated from a British institution in Physical Science, Engineering and Mathematics. Successful applicants are chosen from the top students and should have attained a second-class honours degree or higher (Gwaradzimba & Shumba, 2010:210). Western countries are exploiting economic situations in Africa to their advantage because of a serious staffing predicament that these countries face (Sankore, 2005:12).

The number of Africans that have acquired Canadian citizenship has risen. While migration under family sponsorship is important, Canada, more than the US, has increasingly emphasized the migration of skilled workers and business people and has also become an increasingly attractive destination for African immigrants. For example, only 28% of immigrants were in the family class in 1997, while 49% were in the skilled worker class, 9% in the business class and 11% were refugees (OECD, 2003). The above findings clearly indicate that most migrants in Canada are skilled professionals.

## 3.5    RESPONSE TO SKILLS SHORTAGE FROM AFRICA AND OTHER DIFFERENT COUNTRIES

There is a variety of experiences with Diaspora engagement strategies, policies and actions. A few African countries have established government agencies to encourage Diasporas to invest assist local communities and provide policy advice and/or have improved the engagement of their embassies abroad with the Diaspora community. Investment promotion agencies in Ethiopia, Ghana, Nigeria and Uganda have begun to target the Diasporas (Boly, Coniglio, Prota& Seric, 2014:4).

Several African initiatives are underway to address brain drain and this includes the Protocol on Facilitation of Movement of Persons, which was signed by SADC member states in the context of poverty and underdevelopment. Part of the problem is the incapacity to deal with migration challenges at several levels of government. This informed the reason why IOM's Regional Technical Co-operation Service Centre was established in Pretoria in January 2006 as a means to assist the South African Government.

Angola is determined to share its wealth with its people through small and medium scale enterprises and investments in quality education and skills development, including health and safety standards. South Africa opened its doors to all who experienced genuine problems; and those that wanted to learn and direct capital investors into the country. The common factor between both countries is the fear that an influx of skilled and unskilled African immigrants may cause political instability, as the interests of citizens comes before that of immigrants. They have an organization that deals with the issue of skills, the commission for repatriation and the integration of Angolans.

In this regard, various supportive policy initiatives have been undertaken in a bid to attract Diaspora resources for development. The multiplication of national bodies that have been established across the continent is an indication of commitments to engage their nationals abroad (Boly, Coniglio, Prota& Seric, 2014: 10).

According to Belai (2007:67), the Round Table on International Migration recognized migration as being beneficial to development and having the potential to contribute to the achievement of the millennium developmental goals. For this to happen, the

continent has to capitalize on skilled immigrants who live abroad. Brain drain has severely weakened the capacity of many developing countries to fuel growth.

There can be as many forums of Diaspora, as well as Diaspora groups and individuals, but the solution lies in the interest to contribute to the home country's capacity development efforts. A number of broad and not exclusive categorizations can be made, which include those cited below.

**Permanent returns:** this is when the Diaspora members relocate to the home country. Permanent returns in countries from South East Asia such as India and China have proved unsuccessful, and the same is likely for Africa.

**Short term return assignments:** this is where members of Diaspora forums are used to fill skills gaps in the home country; experts from the Diaspora can temporally fill areas where severe shortages of human capital have been identified, such as in the education and health sectors.

Mahroum, Eldridge and Daar (2006:28) hold that these networks could result in permanent return or distant cooperation via knowledge transfer and remittances of foreign investment, but a return from the Diaspora has challenges such as adapting to poor and unreliable services, political instability, an unpredictable economy and the attitude of local people thinking that you act as if you are better than they are.

Resource mobilization (RM) is crucial in order to undertake Diaspora-related works. RM is the collection and channelling of financial and other material resources from the Diaspora to the country of origin. Although virtual participation has gained popularity, rapid developments in areas of information and communication technologies are needed, as this provides opportunities for involvement via electronic formation and development research, among others.

**Investment** can be effected via a number of channels, including remittance, purchase of commercial or residential property, depositing savings and support of local development projects.

Institutions of learning and business links are formed to communicate, work together on issues of common interest, mentor and research, and use universities to establish

new products that enhance cross-border cultural exchange.  Oucho (2007:7) holds that SADC countries perceive immigration differently; hence they maintain policy differentiation on the subject. Generally, net emigration records exist in all countries in the region, except in Mauritius and South Africa, suggesting that emigration is dominant on these countries' agendas.

- **Three blocks emerged amongst countries in two separate immigration policy directions**: no intervention (Angola, Mauritius, Mozambique, Zimbabwe) (Namibia, Swaziland and Tanzania);
- **Lowering intervention:** (Botswana, Malawi, RSA and DRC). According to Belai (2007: 52), the targeting strategy to attract the Diaspora includes establishing a central Diaspora office to improve information availability, encourage returns and offer incentives and job matching.

The IOM's Return and Reintegration of Qualified African Nationals program (that included Angola, Mozambique and Zimbabwe), assisted the return of 2 009 professionals to Africa over a 17 year period. Programmes like this are likely to be ineffectual at best. The IOM initiated a more flexible skills transfer program called Migration for Development in Africa (MIDA), with the IOM acting as a kind of "go-between." While this program seemed to have a higher success rate, its effectiveness is untested. In general, formalized skills returns coordinated by international organizations are not going to have a major impact on ameliorating the effects of brain drain. Replacement recruitment is a strategy that South Africa could pursue.

According to Oucho (2000:5-6), Migration Dialogue for Southern Africa (MIDSA) is one of the regional programmes aimed at using international migration to foster regional growth through information sharing and support for joint projects. The author identified permanent and temporary labour, refugees and asylum seekers; undocumented as salient types of international migrants. Brain drain in sports has been of great interest for over two and a half decades. Many developed and developing countries' naturalized foreign players and many players that went abroad, returned home to plough back.

The African Union (AU) formally acknowledged that the African Diaspora has a rightful place in the continent's geopolitical and socio-economic development and it called on

the Diaspora to be designated to the six regions of Africa. In February 2003 heads of states met in an extraordinary summit to amend the AU Constitutive Act, which seeks to encourage the full participation of African Diasporas. The AU launched the Western Hemisphere African Diaspora Network in 2002, prior to the 2003 summit of heads of states, to investigate a role for the Diaspora (Easterly and Nyarko, 2005:17).

It was recommended that the African Diaspora be encouraged to collaborate with entities such as the EU/EC, AU, ILO and IOM to assist in fostering stronger relationships by creating an enabling policy environment and ensuring good governance, whilst establishing a database of highly skilled Africans who live abroad, including those who attend universities, and the skills needed by the economy, by:

- developing integrated migratory policies on poverty reduction and
- Countering the exodus of skilled Africans by promoting skills retention and remittance transfers.

African initiatives to engage the African Diaspora is championed by the African Union (AU), the New Partnership for African Development (NEPAD), as well as by the African Development Bank (ADB). The return and reintegration of qualified Africans who live abroad was implemented between 1993 and 1999. The mandate was to facilitate the return of skilled Diasporas to fill gaps in the local economy. According to Belai(2007:67), other similar initiatives abroad include the Reintegration of Qualified Latin American Nationals (RQLAN) and the Return of Qualified Afghans (RQA).

## (A)   The African Migration Fund

The establishment of the African Migration Fund would help to counteract brain drain by using it to implement measures that were set out in Tripoli's Joint AU-EU Declaration (Tripoli Declaration, 2006) and the Migration Policy Framework (Africa Health Strategy, 2007:12).  An endowment fund was also suggested to develop human resources in the health sector. This fund would help to facilitate the return of qualified nationals who reside in developed states through placements, re-settlements and retention incentives. Facilitating temporary labour migration has a positive impact on the fight against human trafficking by expanding opportunities for legal migration (Maru, 2008).

### 3.5.1 Individual states 'initiatives to counter brain drain via the creation of intellectual networks

The political pressure generated by the brain drain phenomenon requires innovative solution approaches that are faster and easier to implement than complex governance models. Alternative solution approaches are also important because of the uncertainty regarding the number of highly skilled people who are working beyond the borders of their home country. These alternative approaches need to be effective in respect of two issues, namely to maintain access to the pool of know-how and to limit the outflow of skilled resources.

They focused only on human capital approaches, where the skilled person is perceived as an asset, made of qualifications and professional experience that are the result of previous investments. This model could not work because the human capital approach reflects only a small part of the phenomenon.

The scientists and engineers abroad are educated human resources, trained through professional practice and employed in much better conditions than those that the country of origin could have provided. If such a country is able to use these resources largely shaped through others' investments, it would then gain something of value.

There are two ways to implement brain gain: either through the return of the expatriates to the country of origin (return option) or through their remote mobilization and association to its development (Diaspora option in combination with intellectual networks). The return option has been successfully realised in various new industrialised countries (NICs) such as Singapore and the Republic of Korea, or large developing countries such as India and China (Charum andMeyer, 1999). Since 1980 strong programmes to repatriate many of their skilled nationals abroad have been established. They have created networks at home where these individuals can effectively find a place and be operational.

The Diaspora option is more recent and proceeds from a different strategy. It takes for granted that many of the expatriates are not likely to return. They have often settled abroad and have built their professional and personal lives there but they may still be concerned with the development of their country of origin because of cultural, family or other ties. A number of countries have made use of the "Diaspora option". A number

of expatriate knowledge networks have been identified around the world to date and several of these networks are discussed briefly below.

**COUNTRIES**

**Venezuela:** In Contact with Venezuela El Programa Talento Venezolano en el Exterior (Program of Venezuelan Talents Abroad) (TALVEN); Developing Intellectual/Scientific Diaspora Network.

- The expatriate networks were classified into five categories: student/scholarly networks;
- local associations of skilled expatriates;
- expert pool assistance through the Transfer of Knowledge through Expatriate Nationals (TOKTEN) program of the UNDP and
- Intellectual/scientific Diaspora networks. Among the latter, distinction is made between those networks that are not yet stable or have precise features (developing) and those that seem more established and organised.

These provide material for a deeper analysis. This discussion was restricted to analysis of certain intellectual/scientific Diaspora networks that were identified.

**BURKINA FASO:** set up a special department within its Ministry of Foreign Affairs and Regional Cooperation, which it dedicated to the Diaspora, namely the Burkinabe High Council of Expatriates.

**BENIN:** The Diaspora is represented at the Ministry of Foreign Affairs, where the Deputy Minister is charged with integration of Beninese abroad.

**EGYPT:** Emigration and Egyptians Abroad is anchored within the Ministry of Power and Emigration.

**ETHIOPIA:** Ethiopian Expatriate Affairs' (EEAs) role is to ensure effective interaction between the Diaspora and various government agencies and to deal with Ethiopians who have foreign citizenship.

The Ministry of Foreign Affairs, the Diaspora Coordinating Office and the Ministry of

Capacity Building of Ethiopia were established to facilitate the development and implementation of a national capacity development policy. Together they established 15 programs, which range from education and the justice system to civil service, higher education and private sector development. The aim is to broaden knowledge and train the required human capital. Other initiatives include duty free importation of personal items and foreign currency bank accounts.

Other Ethiopian initiatives include the Ethiopian Academy of Sciences, the Ethiopian Educational and Cultural Society, the Global Education Network of Ethiopia, the Foundation for Education and the Global Network of Ethiopians for Science and Technology.

**GHANA:** Ministry of Tourism and Diaspora Relations. The Ghanaian Government has had initiatives, which relate to the Diaspora such as the home coming summit that was held in 2001, with the aim of promoting the Diaspora's involvement in Ghana's development. This was followed by dual citizenship and voting rights, which allowed citizens dual citizenship and non-resident Ghanaians voting privileges in February, 2006. Ghana's Citizenship Act also provides for an indefinite stay for Ghanaians who cannot hold citizenship owing to host governments' restrictions. The Ministry of Tourism and Diaspora Relations was established in April 2006 (formally known as the Ministry of Tourism).

Information was collected in respect of Ghanaian expertise abroad via the Ghana Skill Bank, a project of the Ghanaian embassy in Washington DC. The Ministry of Health/IOM/government of Netherlands also established an online database to target Ghanaian health professionals who practice in the Netherlands and other European countries, and for short-term assignments in Ghanaian hospitals, which last from three weeks to three months. They created the National Identity Project, seeking to collect information on the Ghanaian skills base, both in Ghana and abroad that began in 2007.

It aimed to facilitate investment in Ghana from a non-resident or descendent of African Diaspora through the extension of dual citizenship infinite stay, allowing them investment opportunities that are similar to that of Ghanaian residents and, last, but not least, in collaboration with the IOM transfer skills, to alleviate the effects of Ghanaian brain drain.  Ghana has the Ghanaian Doctoral Initiative (GDI), which is a

Diaspora initiative between Florida A & M University and the University of Cape Coast in Ghana. The initiative was designed and implemented as an intervention to alleviate the academic brain drain phenomenon in higher education in Ghana.

Its objectives include an increase in terminal degrees (PhDs), lecturers and researchers at university level, development of a cadre of researchers who will conduct research and disseminate the findings to policy makers, and preparing individuals with knowledge, skills and dispositions that are necessary to assume leadership roles in primary, secondary and technical schools, as well as at university levels.

**MALI:** Mali Ministry of Malians Abroad and African integration.

**NIGERIA:** Nigeria Office of the Special Assistant to the President on Diaspora activities (Advisory Board), and the Nigerian National Volunteer Service of the Secretary to the Government of the Federation (implementing agency). The office advises the president on matters relating to Diaspora engagements. Then president, Obasanjo, made it his mission and personal commitment to reach out to Nigerians who were in the Diaspora. He initiated the Nigerians in Diaspora organization to regroup Nigerian professionals in Europe and North America in 2000.

Another initiative was the Annual Nigerian Diaspora Day Conference, which was held on 25 July 2006. They also established the Nigerian Experts and Academics in Diaspora Scheme, which was devised by the Nigerian National Universities Commission as a mechanism to enlist lecturers and researchers in developed countries into the Nigerian university systems.

**SENEGAL:** Senegal Ministry of Senegalese Living Abroad.

**MOROCCO:** In Morocco, the Diaspora programme is represented in the Ministry of Foreign Affairs and Cooperation under the auspices of the Deputy Minister, who is charged with the welfare of Moroccans who live abroad (Belai, 2007:420).

**NEW ZEALAND:** In the case of New Zealand, besides adopting policies that seek to attract the international labour force, practical steps were taken to reduce a skills shortage in the construction sector through increases in wages in order to attract new

labour and retain the existing labour force, overseas recruitment and reformatting training requirements to be in line with market demands. Other sectors such as education and labour came together to provide different solutions, such as joint education and training, and to increase industry-training funds.

At an organizational level, New Zealand, through collaboration between high schools and universities, invested in marketing among school students. Also by promoting the Construction Skills Programme that was adopted by the Industry Training Organization to draw high school students to careers in building, making it look attractive. LaRocque, (2007:1), holds that the problem of skills shortage in New Zealand has been at the forefront of discussions in the business sector, the national press and has reflected in government policy. NZDoL (2005:6) holds that policies will not apply to all sectors, but rather to specified occupations. Some occupations require increased training rates, while others require importing skilled professionals to fill positions that could either result in permanent or temporary migration, while in some cases multiple responses are required.

The New Zealand Department of Labour (NZDoL, 2005:1) holds that in an attempted response to emerging skills shortages across the country, the New Zealand Government launched its Skills Action Plan in 2002 to help manage the situation. An objective of this plan was the creation of the Job Vacancy Monitoring Programme within the Department of Labour. According to NZDoL (2005:1), this programme aimed to improve information regarding skills shortages.

**AUSTRALIA:** Australia, Like New Zealand suffers from an acute shortage of skilled labour. At national level the Australian Government has established various strategies to respond to the problem. The Australian Government (2006:35) established an immigration policy to address the problem and more policies are likely to emerge in the near future. According to Quirk and Mitchell (2005:13), the Australian Government (2006:35) posited that Australia has embraced skills migration as part of its skills shortage solution. This came as a result of Australia being a net importer of skills from other countries, which has had positive impacts on the skills shortage.

A number of visa sub classes were created for skilled migrants to be allowed to live and work in Australia. As these sub classes are state sponsored, applicants are

expected to provide services in selected areas for a minimum period of two years (Australian Government, 2006:35).

Lawyers (2008) indicate that the Australians announced an additional measure of the Skilled Migration Program to address the skills shortage. According to Lawyers (2008), the Skilled Migration Program encourages visa applicants to use their education and training, technical know-how, work experience and language ability to satisfy immigration requirements. This SM program also caters for applicants who are not sponsored by an employer and who have skills that Australia requires in order to fill labour shortages.

Lawyers (2008) indicate that other Skilled Migration Programme initiatives include extension of working holiday visas for young people from reciprocal countries. As a result, the number of people who have working holiday visas has increased compared to previous years – 85 200 in 2001-2002 to 126 600 in 2006-2007.

Changes to the working holiday visa have facilitated people to undertake at least a minimum of three months of work in the construction sector, which could be extended to a year. A review of the temporary work visa system (known as the subclass 457 visa program), permits efficiency in the supply of experienced professionals. This structure provides businesses easy access to the skilled labour market for recruitment of skilled labour from abroad for periods of between three months and four years.

The External Reference Group comprising industry experts, who examine skilled immigrants' performance, complements how the Australian Government assists in easing labour shortages in the medium to long term. The Australian Forum (2011) holds that another positive response that was welcomed nationwide is the National Resources Sector Employment Taskforce, which is also known as NRSET. This strategy primarily recognises that Australia needs more skilled workers in order to grow the economy. This is the premise from where they departed. The strategy seeks to improve training and boost apprenticeships.

For the reasons mentioned above, the Australian Government supported the National Resources Sector Employment Taskforce with the Critical Skills Investment Fund,

injecting $200 million, which represents an important step towards expanding funds for skill-based training (Australian Forum, 2011).

The Australia Government (2006:36) responded with flexibility of training and apprenticeships, allowing apprentices to demonstrate competencies without having to wait fora set time. School-based apprenticeships are now available nationally and skilled migrants receive bonus points for skills that are listed with the Department of Immigration and Multicultural Affairs (DIMA), Migrant Occupations in Demand List (MODL), which is compiled and updated by the government on a bi-annual basis.

At the meeting of the Council of Australian Governments (COAG) in 2006, a number of initiatives were formulated to help alleviate skill shortages, including the encouragement of immigration. The Australian Government (2006:37) availed a number of subsidies for employers who take on trainees. Employers receive a subsidy of up to $1 250 to employ a new apprentice and if the employer is in a regional area and the training is in an identified skill in demand area, the employer then receives an additional $1 000 when the apprentice moves from certificate II to certificate III/IV training.

The Australian Government (2006:35) also posits that a combination of short and long-term measures across a range of areas, and co-operation between business, employers and employee representative groups, education and training institutions, as well as government, is critical for the achievement of the best outcomes. Further responses to skills shortages, according to LaRocque (2007:19), include wage increases in rare skill occupations, increased human capital investments, inflows of migrants who seek jobs, and an improvement in the 'status' of trades and vocational courses. These responses occur with some delays.

The Australian Government (2006:35) adds that an improved migration policy, close alignment of training, increased training and apprenticeships, an adequate number of teachers, changes in employment laws, more flexible provision of training, new attitudes to trade training, improved literacy and numeracy, increased use of technology, review of occupational regulations and retention strategies have all been part of the government's response strategies to manage skills shortages.

**KOREA:** In 1994 Korea introduced its "brain pool" programme, which was mandated to sponsor universities and research institutions to hire overseas KSEs for a short term, as well as teach or engage in research development for one year, while the contract may then be renewed for up to three years.

According to Meyer and Watteau (2006:4-5), the Diaspora Knowledge Network (DKN) changed the way that highly skilled mobility was viewed. It changed the concept of brain drain into brain gain by converting the loss of human resources into accessible assets. These are skilled expatriates from developing countries connecting themselves with their home countries through development works such as the Intellectual Diaspora Network, Scientific Diaspora Technological, and the Diaspora Knowledge Networks. During their stay in Korea they may scan the environment and decide on permanent appointment. From 1997 the government-funded institutions established their own education branches at graduate level (Young, 2006:18).

Another initiative on which they embarked was the appointment of the Junior KSE for post-doctoral persons, supporting overseas postdoctoral appointments for KSEs who received their PhDs in Korea, whilst building international exchange relationships and cooperation amongst junior scientists and engineers. The Korean Government supports Korean organizations abroad, including professional associations. It has been established that KSEs who maintain contact via the professional organizations are more likely to return.

A database connects domestic demands with expertise and passes on information to members who reside abroad about the home country's situation. It keeps track of experts in various areas and recruits when the need arises. The new Korean policies are aimed at reversing the brain drain phenomenon and have allowed the KSE to decide for themselves when to go home, provided they have enough information that would enable them to make informed choices. Other initiatives are:

- To establish a bridge organization that works closely with the Ministry of Science and Technology, the Labour Ministry and the Education Ministry. Currently, there are other small-scale Diaspora initiatives that are directed at infrastructure and human resources needs.

- South Africa can learn a lot from the lessons of the Koreans in reversing brain drain. According to Song (1997:6), the Korean Government took initiatives to counter brain drain, provide financial support to Korean students (KSEs) and supported moving expenses for KSEswho returned home permanently. However, the programme did not work as intended, as it lacked the required motivation. Having recognised this, another measure was initiated that attached financial aid to those students who left to study abroad.

**THAILAND:** The Thai model has a special programme that it uses for planned grants for technology transfer for short-term visits.Thailand has also suffered brain drain, and its mission was to identify Thai professionals who live overseas to participate in mission-oriented projects, promote development and facilitate the return of Thailand's professionals from overseas to work in government agencies or in the private sector.

The Thailand Graduate of Science and Technology (RBD/TGIST) is a fellowship program. There has been a shift from the traditional capital approach (return option) to a connectionist approach where social capitals, including technical and institutional links, have become crucial. In approaching the issue (Diaspora option), sociological observation prevailed upon the economic analysis of expected developmental effects.

The Diaspora Knowledge Network was formed in 1992, when the Science and Technology and Development Research team at the French Institute launched its programme on international migration when it heard of the original experience from the Colombian community, the CALDAS (Network of Cientificos e Enginheiros en el exterior).

## 3.6     SOUTH AFRICA REASONS FOR SKILLS SHORTAGE

The most powerful contribution that any government can make is investing in its own people. Educating the country's workforce is the most powerful and significant contribution to the country's economic growth and social development. An educated society has the potential to cope with global technological progress, which is aimed at increasing production, halving poverty and ensuring economic growth that creates jobs.
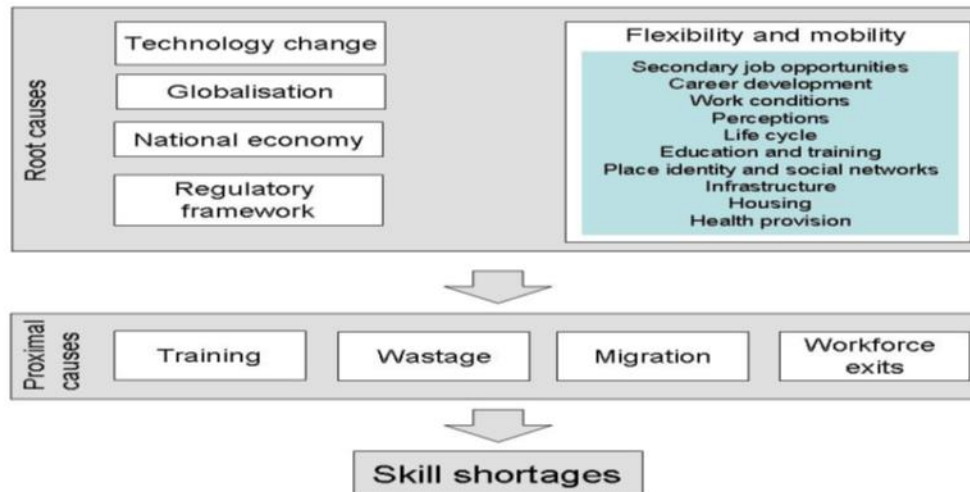
**Figure 3.1: Drivers of skills shortage**

Although the above model served to investigate the root cause of the skill shortage in Australia, it also serves to mirror similar reasons in South Africa. A shortage of skills has always existed but recently emerged forcefully. The CDE (2007:19) holds that this is due to the escalating demand, driven by rapid growth that coincided with continuing supply pressures. These are attributed to the pull factors of the international skills market and the country's lack of ability to develop, utilize and retain enough human capital from its own resources.

The migration of skilled professionals since the fall of Apartheid has generated considerable public attention (Bohlmann, 2010:1; Crush and McDonald, 2002:1). Richardson (2007:8) describes the shortage of skills as hampering the quality and quantity of industrial development outputs. Richardson (2007) also posits that in South Africa the skill shortage has several origins:

- **Finance:** Low investment in skills development;
- **Education:** Fast structural changes in education, cyclical surges in employment in parcels of the economy and weaknesses in training systems;
- **Political**: Lack of confidence in the ANC government on the part of many intellectuals;

- **Affirmative action (AA):** In 1994, the White Paper on Reconstruction and Development called for the adoption of Affirmative Action policies. The following year the government announced the rationalisation and structuring of civil service by means of retrenchments, which was a breach of the earlier promise by the ANC to guarantee job security for public servants for five years beginning in April 1994. The aim was to make the public sector representative of South African society in terms of race and gender by the end of the decade.

Affirmative Action (AA) undermined the skill shortages within the public service and in parastatals.The former Vice-Chancellor of UCT, Dr. Mamphela Ramphele indicated that although AA intended to give a leg up to those with the potential to succeed but had previously been denied an opportunity due to Apartheid, the system was driven by political patronage, which undermined society's ability to recruit and retain the best people in both the public and the private sector. How do you fight injustice all your life only to turn around and practice the same thing? No South African would be made to feel like a second-class citizen in his or her own country.

- **Crime:** crime is rife. Gang wars, domestic violence, car hijacking and bombings of automatic teller machines (ATMs) characterise peoples' daily experiences. Incidences of armed robbery at business premises tripled from 5 500 in 2002/03 to 14 000 in 2008/09.

According Akoojee and McGrath (2007:424), the most important constraints to the economy isa lack of business skills and access to credit. Key priorities for small businesses are for the government to restore safety and security on the streets, improve infrastructure, help to create permanent market stores and improve services. The Southern African Entrepreneurship and Small Business Association found that up to 80% of SMMEs failed every year because of AIDS and crime, along with a lack of management skills.

Akoojee and McGrath (2007:424) provided more reasons for the skill shortage in South Africa, including the Apartheid system, where skills were racialised and gendered. Blacks in general and females in particular were denied access to skills development; neither did they receive certification for skills and knowledge that they learned on the job. In support of the above statements, the Mail & Guardian (2007)

reported that as a result of the HIV/AIDS pandemic, the skill shortage in South Africa has worsened. It is estimated that a total of 71% of the deaths occur between the ages of 15 and 49, and these are the young and middle-aged persons who should be filling the skills gaps. Brier and Erasmus (2009:1) blame the skill shortage on the learning structure, resulting from decades of neglect and dysfunction under Apartheid.

Crush and McDonald (2002:1) confirm that during the advent of the new political dispensation in South Africa several skilled professionals migrated to other parts of the world, fearing the implementation of Affirmative Action policies, violence and crime and that also contributed to the skill shortage.

## 3.7 OTHER FACTORS THAT CONTRIBUTE TO SKILLS SHORTAGES IN SOUTH AFRICA

In mid-1998 the Southern African Migration Project (SAMP) undertook a study to examine the range of factors that contributed to skilled South Africans' desire to leave the country. More than two-thirds of the sample cited emigration, while 38% said that they had given it a "great deal of thought". Among the reasons that were cited was the declining quality of life in South Africa. There is general dissatisfaction with the cost of living, the level of taxation, safety and security and the standard of public and commercial services.

The country's affirmative action policy influenced the emigration of skilled white South Africans. Skilled whites are strongly opposed to this policy and the arguments that are advanced in support of it. The South African debate regarding the brain drain tends to reveal racial contours. The policy acts to reduce the availability of work for those that are classified as "white". A large component of highly skilled groups is likely to be wealthy enough to consider emigration. It is noted that "migration of low-educated Africans is almost nil", and the majority of emigrating groups are whites and a small number of blacks.

Alam &Hoque (2010:535), Fourier (2006:44-45) and Crush and McDonald (2002:1) hold that some internal and external factors and the increase in the migration of skilled professionals contribute to the skills shortage. These factors are divided into push and pull factors. Push factors are generally present in giver countries, while pull factors

pertain to receiving countries (Kline 2003: 108). The following section discusses possible motivations for highly skilled persons (HSPs) to leave South Africa and migrate abroad.

Research indicates that both primary and secondary factors led to brain drain in South African schools. Primary factors include poor working conditions and ill-equipped classrooms, violence, poor discipline in schools, unrealistic workloads, crime and personal safety (SAMP, 2003). For example, since the banning of corporal punishment in schools, learners' ill-discipline and school violence, teachers have found it difficult to control learners. Secondary factors include socio-economic reasons and inadequate remuneration (Gwaradzimba & Shumba, 2010:210).

Crush (2008) found that taxation, cost of living and safety and security are reasons why professionals leave the country. As a developing country, South Africa cannot afford to lose these professionals, as it invests heavily in top-quality education to create the necessary skills for its internal social and economic development. Hence, the government needs to address crime and security issues in order to curb the emigration of highly qualified professionals (Gwaradzimba & Shumba, 2010:210; Kigotho, 2002). Fourier (2006:44-45) and Alam and Hoque (2010:535) describe the following as major factors contributing to skills shortages.

### 3.7.1    International pull and push factors

**Internal /push factors**

- Crime;
- Fear of the Aids epidemic;
- High level of unemployment;
- Unequal education;
- Low wages and salaries;
- Racial differentiation;
- Lack of opportunities for postgraduate training;
- Underfunding of health-service facilities;
- Absence of established posts and career opportunities;
- Conditions of service, including;

- Retirement provision;
- Governance and health-service management shortcomings;
- Civil unrest and personal security and
- Affirmative Action.

**External /pull factors**

- Wage differentials; greater financial rewards and improved working conditions;
- Differences in the quality of life;
- Educational opportunities for children;
- Intellectual freedom;
- Political stability;
- Job security;
- Opportunities for further training and career advancement;
- The attraction of centres of medical and educational excellence and
- Availability of posts often combined with active recruitment by prospective employing countries.

Alam and Hoque (2010:535) and Fourier (2006:44-45) hold that the factors mentioned above have contributed to reducing skills in South Africa, given the fact that many skilled professionals are easily attracted by better working conditions and career development opportunities presented to them in the destination country. Crush and McDonald (2002:1), Du Preez (2002)and Szlontai and Stern (2006) postulate that both push and pull factors lead to a depletion and loss of intellectual, technical personnel, resulting in negative outcomes that affect the economic and social growth of a country. However, flight of human capital from South Africa should not be attributed solely to regional factors.

## 3.8    NATURE OF SKILLS SHORTAGE IN SOUTH AFRICA BY SECTOR

In order to understand the nature of the South African skill shortages, one has to have a working definition of the term 'skills shortage'. The literature provides various perspectives of what a 'skills shortage' is. Shah and Burke (2003:6) associate a skill with qualifications and occupations. In this context, one defines skills shortage as employees that lack certain qualifications, experience or as a shortage of qualified

workers in a particular occupation.

The Department of Education, Science and Training (2002:3) acknowledges that when an employer is unable to fill a position, or experiences difficulties in filling vacancies at present levels of remuneration and conditions of service, there is a skills shortage.

Arrow and Capron (1959:307) have a more traditional definition that appeals to most economists. According to Barnow, Trutko and Robert (1998:7), a skills shortage is when we find disequilibrium in the market between supply and demand, in which the quantity demanded exceeds the supply of available workers who are willing to work at a particular wage and in working conditions at a particular place and point in time.

This study adopted the following definition: A skill shortage occurs when there is a shortage of workers in a particular occupation as a result of labour demand exceeding available skills, or workers lacking appropriate qualifications (Barnow, Trutko & Robert, 1998; Shah & Burke, 2003; Trendle, 2008). This definition was considered appropriate for this study, as it covers a range of situations that cause skill shortages in South Africa. A number of factors that contribute to an extensive skill shortage are: globalisation; a structural change in the labour market; a dysfunctional education system and a general under-investment in skills development and emigration (Anderson, 2008; Barker, 2003; Development Policy Research Unit, 2007; Du Toit & Van Tonder, 2009).

The problem of persistent skills shortages re-emerges in the media regularly with an ever-growing and loud call for the government to do more to address this phenomenon. Political parties, employers and trade unions frequently make comments citing a lack of skill or shortage thereof as a major obstacle to economic growth and job creation. According to Kraak (2004:70), there is a growing realisation that economic prosperity essentially depends on the existence of a highly skilled workforce.

The brain drain has been a broadly discussed, sensitive and controversial issue in South Africa for the past decade.  While everyone agrees that there is indeed a brain drain problem, there is little agreement on its dimensions, its causes, impacts and remedies. Journalists and academics have increasingly questioned the accuracy of

official statistics on the extent of emigration from South Africa, particularly of skilled people. Doubts arose in the mid-90s as empirical findings indicated that the departures were far higher than data that was published by Central Statistical (Meyer, Brown and Kaplan, 2000).

In a report known as the Flight of the Flamingos that was conducted by the South African Human Sciences Research Council (HSRC), the brain drain of scientists from South Africa was found to be four times greater than government figures suggest, because official migration statistics indicate that almost 17 000 science and technology professionals left the country to seek employment abroad between 1994 and 2001 (Jones, 2004). The report indicates that these professionals moved into other professional fields such as management and financial occupations on arrival at their destinations (Australia, Canada, New Zealand, Britain and the USA).

The 1994 elections ushered in a new, exciting and challenging era for South Africa (Luiz, 2000cited by Domingos, 2007:1). Armstrong (1995) wrote that skills shortages are a legacy of Apartheid education, under which black children were taught little, if any, science and mathematics. Such knowledge was deemed unnecessary, or subversive, as blacks people were expected to perform only the lowliest tasks in the economy.

The South African pool of scientists and engineers excluded 85 percent of the population from quality social services. The latest figures indicate that only 18 percent of scientists and technical staff in South Africa are non-white. The most pressing concern in South African companies' is the shortage of skills, but few are willing to invest in worker training. A World Bank review in 1994 regarding the investment climate in the country revealed that 35% have claimed a lack of skills as their most pressing problem. This review was conducted in 803 mostly white-owned companies. Conversely, the public sector is unable to effectively manage recruitment and staffing processes and cannot offer attractive working conditions to financial professionals due to budget constraints.

The skill shortages on senior and managerial levels and the high vacancy rates not only hamper the execution of financial functions, but also limit the public sector's internal capacity to train and mentor people who are not adequately skilled. At this

stage it does not seem as if the skills situation in the public sector will improve without concerted interventions – both in terms of reducing the numerical shortages and increasing the skills of employees who are already employed in financial positions.

South Africa, Africa's economic powerhouse, not only suffers from brain drain but has also experienced a brain haemorrhage, as 41 000 professionals left the country between 1987 and 1997, while its loss of teachers is estimated at 8 000 (Semakula, 2002:47).Pressly (2008:4) holds that there are 336 000 vacancies in the public sector, leaving 1.07 million posts filled, but still not meeting the target level of 1.4 million.

The former minister of Public Service and Administration, Geraldine Fraser-Moleketi, quoted a figure of 14 967 vacancies in the public sector at national level and 7 856 posts in nine provinces, totalling 22 823, which contradicts information that was previously disseminated by the government pay system, Persal.There is confusion over just how many vacancies exist in the public sector, with then minister Fraser-Moleketi holding that the 337 000 posts registered on the government's payment system, Persal, was incorrect. Investigations unearthed what her department dubbed "more realistic figures" of about 15 000 vacancies at national level. The public service has a target level of 1.4 million bureaucrats, but there are about 336 000 vacancies, leaving 1.07 million posts filled (Pressly, 2008:4). The number of vacancies in key departments can be broken down as follows:

- **Home Affairs 2004**: 22 percent of posts were vacant, including 34 percent of highly skilled supervisory posts and 54 percent of its IT posts, as well as 13 out of 42 senior management posts;
- **DTI 2005**: 34 percent of posts were vacant, including 41 percent highly skilled supervisory posts; 54 international trade and economic development posts; 63 trade facilitation posts and 58 out of 177 senior management positions were vacant;
- **Education 2005**: 18 percent of posts were vacant, including 13 out of 85 senior management posts;
- **Transport 2005:** 213 out of 551 posts were vacant, representing 39 percent; 35 out of 90 senior management posts; 90 out of 198 highly skilled production posts representing 45 percent; officials of the department of Provincial and

Local Government told the Parliamentary Portfolio Committee that there were serious skills shortages in local government.

Of the 284 local authorities, 203 could provide sanitation to 60% of their residents, while 182 were unable to provide refuse removal to 60 percent of the households, 155 could not provide water to 60% of the properties and 122 could not provide electricity to 60 percent of the homes. This indicates the devastating impact of the skills shortage on service delivery.

A recent paper by Arocena and Sutz (2006:54) holds that skills migration is a fast-evolving process likely to accelerate in the coming decades as part of global transformation, which affects the world economy. They asserted that attempting to influence the trend is not easy for developing countries. The reality is that most less developed countries have no hope that in the near future they will be able to create the type of economic opportunities required to substantially reverse the brain drain.

According to Coetzee and Keevy (2006:1), the debate relating to the shortage of critical skills has been part of the country for some time. Through initiatives like the (ASGISA) and the (JIPSA), the government has shown that it is aware of the problem and that something needs to be done about it.

According to the Fasset (2009), to ensure a healthy and thriving economy, the shortage of skills must be addressed, as skills development is a catalyst for a productive and wealthy nation. South Africa should take into account the advantages of the available forces and see migration from its positive and negative perspectives. Attracting foreign skills to the country requires removing obstacles to immigration for professionals and this has begun with the passing of the Immigration Regulations (2006).The ICT professionals database illustrates that 104 000 vacancies existed from April 2004 to December 2006.

According to Arocena and Sutz (2006:44), knowledge can be described in two ways, which are as **stabilizing** or **destabilizing** forces of our times that have created enormous wealth, as well as conflict and suffering. The destabilizing power of knowledge affects social relations and habits, enlarges benefits and opportunities, as well as risks and damage. It is a key factor for inequality between people or nations,

which has manifested in underdevelopment.

Mandela's vision of an expanding economy and decent living conditions for all is blighted by an acute shortage of scientific, engineering and technical skills. In a population of 51 million, there are only about 121 000 professionals who work in these fields and who have a university or college qualification. The skills shortage is the main factor that hinders growth for companies that are established in the South African market. Meanwhile, almost 40 percent of the South African population is unemployed. As a response to this challenge, Sweden and South Africa have initiated a programme that aims to promote skills development, entrepreneurship, management and trade management in South Africa.

This is the number of people that the economy would have been able to absorb immediately if they had been available (with the right sets of skills). This is the most conservative estimate of the current shortage. It is likely that the economy would be able to absorb larger numbers – especially at professional levels, where skills needs do not always manifest in vacancies. Accounting and auditing firms indicated that they would be able to grow their businesses to a larger extent than is currently possible (Saica, 2008:81-82).

The CDE (2007:22) holds that businesses are complaining about shortages of skills in welding. It is estimated to be short of 12 000. In 2004 Kumba hired welders from Germany to upgrade its furnace, because in South Africa only six people had obtained internationally recognised welding qualifications. In 2006 Sasol could not find mechanics, welders and riggers that it required at its refineries to meet government demands and had to import 2 000 artisans for this purpose. In 2006, 37 departments and 284 municipalities needed five chartered accountants each, which they were not able to find in the RSA(Patrick Maranya, Project Director, South Africa Institute of Chartered Accountants).

Brier and Erasmus (2009:1), the CDE (2007:3); Fasset (2010:1) and Seta companies in accounting, finance and other industries all acknowledge that skills shortages across all sectors of the economy area constraint to South Africa's economic growth and an impediment that requires immediate remedial action, if the country is to achieve the kind of sustained economic growth that will reduce poverty and open doors for

much wider participation in the economy.

A Deloite & Touché report cited by the Solidarity Research Institute (2008:2), indicated that 81% of South African companies struggle to find staff with appropriate qualifications, with 76% having difficulty in finding black people or any previously disadvantaged candidates. The country faces a particular shortage of chartered accountants, sales and marketing personnel, IT specialists and scientists. SRI (2008:3) holds that the South African Institute of Architects indicated that 80% of the country's architectural practices experience shortages of up to 40%, whilst the South African Institute of Draughting experiences shortages because the country only produces 1 000 draughtspersons per year, but South Africa needs 5 000 to meet the country's demands.

SRI (2008:4) holds that Professor van Jaarsveld of the National Research Foundation (NRF) in 2007 held that South Africa is struggling due to research capacity. The country needed to produce a fifth, approximately 6 000 science and technology PhD graduates annually to ensure that it remains competitive in the global knowledge economy. In the meantime, the Human Sciences Research Council (HSRC) found that in order for the country to meets its human resource demand and to fill managerial and technical positions, it needs to produce between 350 000 and 500 000 qualified people (SRI, 2008:5).

Polity.org (2011) holds that the human capital group, Adcorp, revealed in its employment index that in South Africa there are as many as 829 800 positions unoccupied in high-skilled occupations and that the economy faces a shortage of 216 200 managers,178 400 professionals and 432 100 technicians. This is in contrast to the 967 600 elementary workers and 247 400 domestic workers who are in surplus. An extreme shortage of skilled people was found in senior management, engineering, accounting, law, medicine, artisans, technicians and people in the agricultural industry.

Myburgh (2004:22) holds that during the late 1990s emigration from South Africa increased, reaching 58 000 in 1999, and by the late 1990s, 8 percent of South Africa's highly skilled graduates had emigrated to Australia, the United Kingdom, New Zealand and the United States.

The CDE (2010:10) holds that the country's loss of a skilled workforce is not something new, as the losses began in the 1970s but the growth has accelerated since the inauguration of the new democratically elected government in 1994. Although it is difficult to give the exact number, given the complexity of the subject, the CDE (2010:10) estimates that more than 520 000 South Africans emigrated between 1989 and 2003, with numbers growing at a rate of about 9 percent per annum.

The CDE (2010:10) indicates that 120 000 of those emigrants that left South Africa had professional qualifications, amounting to about 7 per cent of the total pool of professionals employed in South Africa, and more than eight times the number of professional immigrants in the same period. There is a National Master Scarce Skills List for South Africa. It is updated annually and an Annual State of Skills publication is available on their website.

The National Master Scarce Skills List brings together a number of labour and market demand identification processes and represents a growing coherence across government and private sector stakeholders. It identifies and forecasts skills demand. The list is aimed at providing a comprehensive account of the skills that lie at the heart of the "binding constraint" on economic growth and development; in other words, the skills that are most needed in the country.

The Department of Labour draws data from Seta Sector Skills Plans for various government departments and complementary information produced by commissioned sectorial research studies. The Department of Home Affairs produces a Work Permit Quota List that is published annually. The scarce skills information and mechanisms that are used to identify scarcity have been improved through the experience and lessons learnt during the development of the first list. The Accelerated Shared Growth Initiative for South Africa's Joint Initiative on Priority Skills Acquisition adopted the list as the AsgiSA Master Skills List (Fasset, 2009).

The skills quota, published in 2006, allowed for 46 500 skilled people to enter South Africa without a firm job offer, provided they are registered with a relevant professional body (where necessary) and at least five years of relevant working experience.

For the purpose of the quota, six categories were created and divided into 32 sub

categories, where 27 000 places were reserved for science and engineering, 5 000 for construction and civil engineering and only 100 for chemical engineering. Bio-informatics, biomedical engineering and occupational chemistry in management has 1 500 places and 5 150 are for healthcare professionals. Many authors have criticized the lack of coordination and transparency on the part of JipSA regarding the three ministries, namely Labour, Home Affairs and Trade and Industry.  The National Master Scarce Skills List showcases skills that are required in the country to overcome obstacles that hamper job creation.

One of the characteristics of the South Africa labour market is a chronic skills mismatch, excess demand for skilled labour and an oversupply of unskilled labour. Reducing this mismatch is an important challenge.  The post 1994 policy environment indicated a mismatch between labour demand and supply. Reintegration into the international economy demanded skills that were adequate to the methods of production and the world of work. The result has been that too few workers with adequate skills are unable to match labour demand and labour demand is not large enough to absorb the supply of labour.

McDonald and Crush (2002:23) hold that South Africa had an estimated 1.6 million skilled people with the white population constituting 72% percent, blacks 18%, coloureds 8% and Asians 3%. This substantiated the negative impact of unequal policies that were engineered by the country's past Bantu education system. Notwithstanding the need for specialized skills, workers do not use their skills for various reasons, including mismatch, under-investment in training, low wages, flexibility in the international labour market owing to globalisation, inadequate information for future skills needs and a lack of soft skills such as experienced management and communication personnel to fill positions created by economic growth.

Evidence of scarce skills in SA is indicated in the list provided by the Home Affairs Department, which includes agricultural economists, civil engineers, foremen, site managers, construction managers, quantity surveyors, bio-engineers, electronic technicians and structural steel welders. In addition, there are shortages of mathematics, IT, call centre and healthcare industry management teachers, and in the science, telecommunications and automobile industries.

According to Fasset (2009:9), this range of skills scarcity hampers companies from meeting their legislative obligation with Employment Equity Act targets. Many positions could not be filled owing to skills shortages caused by a lack of good and competitive salary and remuneration packages, not enough qualified black people and workers in general, who have the necessary and appropriate skills. The table below illustrates occupations that reported a scarcity of skills during the period of 1 April 2009 to 31 March 2010.

**Table 3.1: Scarce skills table during the period 2009-2010**

| Rank | Code | Occupation | Need for period 1 April 2009 to March 31 2010 |
|------|------|-----------|-----------------------------------------------|
| 1 | 2211 | Accountants | 5076 |
| 2 | 5311 | General clerks | 1028 |
| 3 | 1111 | Chief executives &managing directors (enterprises /organization analysts) | 737 |
| 4 | 2247 | Management and organization analysts | 460 |
| 5 | 5211 | Personal assistants | 443 |
| 6 | 5511 | Book-keepers | 434 |
| 7 | 2212 | Auditors, company secretaries and corporate treasurers | 414 |
| 8 | 2223 | Financial investment advisers and managers | 201 |
| 9 | 5421 | Receptionists | 169 |
| 10 | **1322** | **Financial managers** | 114 |

**Source: Sector Skills Plan 2008/2009**

### 3.8.1 Sectorial trends on skills shortages

Former deputy president, Mrs Phumzile Mlambo Ngcuka, in 2006 requested that the Department of Home Affairs attract scarce skills from the international community. Skills are required for infrastructure development, private sector advancement, state owned enterprise, social services and for the Expanded Public Works Programme.

This is evidence of the acute nature of the skills shortage.Mrs Geraldine Fraser-Moleketi had previously said in 2004 that one of the key hurdles to crippling service delivery is the shortage of appropriate skills. At the same time, she visited India to recruit skilled people for the public sector, focusing on engineering, mathsand science teachers, IT experts and financial managers.

McDonald and Crush (2002:1) posit that the skills shortage in South Africa affects various fields ranging from the armed forces to education and emergency fire services, including the electricity and healthcare sectors. This condition is hindering government's ability to render quality service delivery. Various research papers (Brier and Erasmus, 2009:1; CDE, 2007:3; Fasset, 2010:1), have shown evidence that South Africa is facing a shortage of skilled professionals in almost every sector of its economy and if the problem does not receive immediate attention and is not addressed properly, it may impede economic growth and the fight against poverty, which has been part of the newly-elected government's agenda since its inception to power in 1994.

### 3.8.1.1  Artisans

One cannot begin to understand the nature of the scarcity of artisans in South Africa if does not know what an artisan is. The term means to instruct through arts and is derived from the Latin word 'artier'. This word was formerly applied to workers that had skills but could not make things by hand and this practice continued until the introduction of apprenticeships. It is important to have sufficient artisans to enable infrastructure development, grow the economy and create wealthier communities. Many research papers have shown evidence of the severe shortage of artisans in the country. With this situation the government does not have the ability to create the sustainable economic growth required for poverty eradication (van Rooyen et al., 2010:1; Brier and Erasmus, 2009:1).

According to Picworth (2006), South Africa's Minister of Labour, Membathisi Mdladlana, said in response to Sasol's move to import welders, that it was not merely job creation that was a fundamental problem, but also a skills shortage. He reiterated that, to fill Sasol's welding positions, the company needs welders with at least a level-four qualification and that South Africa has many welders, but only at level two, which is far from sufficient for the job at hand. "*Job creation is one of our fundamental*

*problems in South Africa but so is the skill shortage*," he said. "*Remember we have 30% to 40% of our population with no education, who cannot read or write*," (Picworth, 2006).

The Service Publication (2010) posits thatSouth Africa produces few artisans and that the economy required less than 45% of what it produced a quarter of a century ago. This has hindered municipalities from utilizing their multi-billion rand infrastructure grants and has placed them in a battle to render proper services. Another research study that was conducted by the Mobilitate Witness (2010),holds that the Department of Higher Education and Training target of 12 500 it is in excess of the 5 600 qualified artisans estimated to be needed annually.  The Service Publication (2010) holds that the country's artisan needs range from 50 000 to 80 000.

In government, the shortage of artisans is evident, given the nature of their work that ranges from keeping the lights on, to water accessibility for all and roads and bridges being maintained. The private sector is just as severely affected. The mining sector, manufacturing and other heavy-duty industries indicate evidence of the lack of artisans. Artisans are critical for the maintenance of equipment and the operation and maintenance of municipal infrastructure. The Solidarity Research Institute (2008:3) concluded that the country has a 40% shortage of artisans and estimations indicate that the country has only 10% of the number of artisans that it had 20 years ago. As a result, the construction company giant, Grinaker-LTA, had to import the artisan skills that it needs from Malaysia, Ireland and India.

Sasol imported 1 300 artisans  from Thailand to supply the demand for skills that could not be found in South Africa, at a time when they needed welders and maintenance workers at the company's Secunda synthetic fuel plant (Solidarity Research Institute, 2008:3). The primary reason for a shortage of artisans in South Africa, according to John Botha,is the lack of suitably qualified candidates in science and mathematics, which is the foundation of many artisan trades.

Contrary to the above statement, van Rooyen et al. (2010:2) blame the shortage of artisans on organisations' failure of recognition of staff and a lack of attention given to retaining staff by satisfying their needs. Reasons for the shortage are attributed to international organisations recruiting artisans in South Africa, facilitated by

globalisation and high salary offers (Barry and Jordaan, 2009:174).

Contrary to both statements above, Brier and Erasmus (2009:220) blame factors such as the decline of apprenticeship systems, failure of timely substitution of staff and not training enough human capital via learnerships and education and training colleges to eliminate the shortage of artisans.  Another concern is that the majority of young people cannot find a job after acquiring the necessary qualifications because their course was not aligned to industry requirements of a level four qualification and due to lack of sufficient and appropriate work experience.

According to the Service Publication (2010), Eskom and Telkom, were responsible for training a large segment of artisans through apprenticeships, but they ceased this practice owing to the commercialisation of their operations. Thousands of skilled artisans were imported from countries such as Australia and Dubai to work on 2010 World Cup projects owing to the artisan shortage in South Africa.

The combination of decreasing numbers of school-leavers entering the industry and many of the artisans taking their skills abroad is "dangerous" for an economy that is dependent on construction, production and manufacturing. Between the early 70s and late 80s there were over 30 000 registered apprenticeships, but two years ago it had declined to 3 000 and last year only 1 400 remained. Parastatals that were conducting the bulk of the training have stopped owing to privatisation and limiting the amount of training to internal useonly (Pressly, 2007; Herman, 2006).

### 3.8.1.2    *Nurses*

In many rural areas, hospitals do not have adequate qualified health personnel but numerous South African nurses are working overseas.
The World Health Organisation (WHO) estimates the presence of 2.4 million health personnel that provide essential health care intervention worldwide (Naicker, Rhule, Tutt and Eastwood, 2009:60; Buchan and Aiken, 2008:2; Kuehn, 2007:1853). Egerdahl (2009:6) estimate a shortage of 4.3 million healthcare personnel globally, which includes physicians, nurses, midwives and other key personnel.

Regardless of how many health professionals are available, according to the WHO (2006) several factors have contributed to the current global shortage of nurses namely:

- The growing aging population in western countries, predominantly in the northern hemisphere;
- The growing number of high-tech healthcare workers is increasing the demand for healthcare workers;
- Poor planning and low-investment in health workers' education has left the northern nations with too few health workers to meet domestic demands.

According to Pillay (2009:1), South Africa comprises of a dual health system, namely the public sector that comprises government hospitals with the mandate to serve the country's general population who are predominantly impoverished and the private sector, which comprises individual private clinics and hospitals with an objective to make a profit and provide healthcare services to those people who are insured.

Only 40% of the total health expenditure in South Africa is allocated to the public health system, despite the fact that it is responsible for the well-being of 82% of the population in the country, whilst the private sector consumes 60% of the health expenditure, although it is responsible for less than 20% of the population.

Pillay (20091) notes that the public sector is under-resourced and over used and is often characterised as inefficient and ineffective in terms of realizing its mandate of affordability, accessibility and providing appropriate health care, while the private sector is known for its world-class facilities and care. As a Solidarity Research Institute publication (2008:5) indicated, the Health Department and Netcare estimated that between 28 000 and 30 000 vacancies for nurses were available in the public sector and 5 000 in the private sector and how is it possible for the state to provide an adequate service if it does not have the capacity. The Solidarity Institute holds that the nursing shortage in South Africa is twofold.

- One is that the country is unable to train an adequate number of nurses to meet local demand, while many South African nurses practice in the Middle East and

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Europe, where they are attracted to better salaries and better working conditions.

- Consequently, the private hospital group, Medi-Clinic, is importing nurses from India to fill vacancies across the country, especially in the Western Cape, where the shortage is dire (SRI, 2008:5).

Naicker et al. (2009:60) hold that since 1996 the country has lost 7% of its skilled health care professionals owing to migration to various parts of the world, with an excessive number of 10 000 South African nurses practicing in the United Kingdom alone, with large numbers in New Zeeland, Australia, Canada and the United States. Breier and Erasmus (2009:119) contend that the South African public and private health sectors could not fill the many vacant nursing positions that were available, as many of the country's nurses were living and working abroad and about 4 844 qualified nurses were scattered in 8 different nations across the globe, namely the United Kingdom, New Zealand, Australia, Canada, Australia, Portugal, France and the United States of America.

Brier and Erasmus (2009:141) conceded that the greatest demand for nursing exists within the public sector, where an advertised vacancy from April 2006 to March 2007 was 97 percent for the public sector and only 3% for the private sector. This relates to the 28 000 to 30 000 vacancies that the Solidarity Research Institute mentioned.

Egerdahl (2009:6) agrees with the findings of a research study that was conducted by the University of Johannesburg, which estimated nursing shortages of over 52 500. Egerdahl (2009:6) indicates that the South African Health Review (2003/04) confirmed a decrease in nurses from 120 per 100 000 in 2000 to 107 nurses per 10 000 people in 2004, while the training of nurses had not matched population growth. Various reasons seem to have contributed to the shortage of nurses, namely: a fragile economy, crime,HIV/Aids killing many health workers, as well as poor working conditions, uncertainty of children's future, discriminatory laws, lack of personal and professional development and higher wages abroad.

In addition to the factors mentioned above,Lewinsohn and Arnold (2010:289), Bezuidenhoutet al. (2009:2013) and Fourier (2006:44-45) hold that the primary reason why many professionals are leaving South Africa is associated with the demand and

supply factors such as economic policies, limited investment in public sector healthcare, lack or minimal funds for training health personnel. These factors are all contributors to the shortage of nurses in various developing countries, and without proper policies in place, the situation is likely to worsen (WHO 2006). Below is an illustration of the South Africa Nurse Council distribution for 2008.

**Table 3.2: SANC Geographical Distribution 2008. Geographical distribution of the population of South Africa versus nursing human resources**

| Province | Population | Nursing Human Resource as at 2008/12/31 | | | | In Training, as at 2008/12/31 | | |
|---|---|---|---|---|---|---|---|---|
| | 2008 | Registered | Enrolled | Auxiliaries | Total | Students | Pupils | Pupil N/A |
| **Limpopo** | | | | | | | | |
| - Females | 2 768 100 | 7537 | 2836 | 6823 | 17196 | 1277 | 267 | 332 |
| - Males | 2 506 700 | 835 | 363 | 853 | 2051 | 476 | 37 | 92 |
| - Total | 5 274 800 | 8372 | 3199 | 7676 | 19247 | 1753 | 304 | 424 |
| **North West** | | | | | | | | |
| - Females | 1 756 200 | 6342 | 1996 | 4048 | 12386 | 1094 | 21 | 130 |
| - Males | 1 668 800 | 705 | 191 | 538 | 1434 | 335 | 7 | 24 |
| - Total | 3 425 000 | 7047 | 2187 | 4586 | 13820 | 1429 | 28 | 154 |
| **Mpumalanga** | | | | | | | | |
| - Females | 1 859 100 | 4903 | 1630 | 3063 | 9596 | 286 | 195 | 85 |
| - Males | 1 730 900 | 400 | 144 | 292 | 836 | 140 | 26 | 31 |
| - Total | 3 590 000 | 5303 | 1774 | 3355 | 10432 | 426 | 221 | 116 |
| **Gauteng** | | | | | | | | |
| - Females | 5 248 600 | 26874 | 10379 | 15042 | 52295 | 3299 | 3894 | 2330 |
| - Males | 5 198 500 | 1312 | 682 | 1068 | 3062 | 701 | 361 | 134 |
| - Total | 10 447 100 | 28186 | 11061 | 16110 | 55357 | 4000 | 4255 | 2464 |
| **Free State** | | | | | | | | |
| - Females | 1 506 800 | 6506 | 1278 | 2674 | 10458 | 751 | 186 | 133 |
| - Males | 1 370 900 | 783 | 228 | 339 | 1350 | 245 | 47 | 40 |
| - Total | 2 877 700 | 7289 | 1506 | 3013 | 11808 | 996 | 233 | 173 |

| | Population | Nursing Human Resource as at 2008/12/31 | | | | In Training, as at 2008/12/31 | | |
|---|---|---|---|---|---|---|---|---|
| Province | 2008 | Registered | Enrolled | Auxiliaries | Total | Students | Pupils | Pupil N/A |
| **KwaZulu Natal** | | | | | | | | |
| - Females | 5 321 100 | 21188 | 14307 | 10305 | 45800 | 2187 | 4242 | 970 |
| - Males | 4 784 400 | 1280 | 1517 | 1075 | 3872 | 614 | 469 | 95 |
| - Total | 10 105 500 | 22468 | 15824 | 11380 | 49672 | 2801 | 4711 | 1065 |
| **Northern Cape** | | | | | | | | |
| - Females | 580 500 | 1915 | 405 | 1195 | 3515 | 232 | -- | 92 |
| - Males | 545 400 | 156 | 30 | 119 | 305 | 58 | -- | 51 |
| - Total | 1 125 900 | 2071 | 435 | 1314 | 3820 | 290 | -- | 143 |
| **Western Cape** | | | | | | | | |
| - Females | 2 760 400 | 13421 | 4710 | 7527 | 25658 | 1437 | 717 | 365 |
| - Males | 2 501 600 | 594 | 244 | 512 | 1350 | 321 | 66 | 27 |
| - Total | 5 262 000 | 14015 | 4954 | 8039 | 27008 | 1758 | 783 | 392 |
| **Eastern Cape** | | | | | | | | |
| - Females | 3 441 500 | 12400 | 2575 | 4998 | 19973 | 2296 | 498 | 104 |
| - Males | 3 137 800 | 827 | 171 | 671 | 1669 | 708 | 146 | 23 |
| - Total | 6 579 300 | 13227 | 2746 | 5669 | 21642 | 3004 | 644 | 127 |
| **TOTAL** | | | | | | | | |
| - Females | 25 242 300 | 101086 | 40116 | 55675 | 196877 | 12859 | 10020 | 4541 |
| - Males | 23 445 000 | 6892 | 3570 | 5467 | 15929 | 3598 | 1159 | 517 |
| - Total | 48 687 300 | 107978 | 43686 | 61142 | 212806 | 16457 | 11179 | 5058 |

**Source: SANC Geographical Distribution 2008. South African Nursing Council – http://www.sanc.co.za/stats/stat2008/Distribution%202008xls.htm**

### 3.8.1.3    Doctors

A number of qualified medical doctors, especially from "the South", the new term used for developing countries, are actively recruited to work in developed countries. This migration is not something new, and has become a global concern.Lewinsohn and Arnold (2010:288) postulate that doctors from developing countries makeup the bulk of the personnel in the healthcare systems of nations such as the United Kingdom, Australia, Canada and the United States, making them heavily dependent.

Consequently, although they do not reap the benefits of their education, developing nations bear the cost of educating their citizens, as many of these professionals are lured to work in developed countries that offer better working conditions and more opportunities to advance their respective careers. Fourier (2006:44-45) supports the debate that attributes the migration of professionals to the push-pull theory. It has been reported that push factors usually more important in doctors' decisions to migrate from their home land compared to pull factors.

Bezuidenhout, Joubert, Hiemstra and Struwig (2009:12) note that in 2002 more than 770000 doctors in America, representing 23%,obtained medical licenses and were trained outside the USA, and from this figure 5 334 hailed from sub-Saharan Africa. With Ghana, Nigeria and South Africa providing nearly 86% of the 5 334. Bezuidenhout et al. (2009:12) hold that 79.4% (4 234/5 334) of them were products of the 10 best African Universities and from 87 medical schools. The University of the Witwatersrand is top of the list (1 053 graduates), followed by the University of Cape Town second with (655) and the University of Pretoria tenth (132).

Benjamin (2006) as cited in Breier (2008:11), posits that evidence of a shortage of doctors in South Africa is clear from the amount of media exposure in the rural public service. Reid and de Vries (2003:789) support this and hold that evidence of a shortage of doctors can clearly be seen in rural areas. For example, the Mount Frère district is one the many rural areas where one doctor serves a population of 30 000.

Couper, Tumbo and Hugo (2009:54) indicate that 46.3% of South Africans lived in rural areas between 1996 and 2001, but doctors were not equally distributed. In 1993 the poorest districts in the country had 5.5 doctors per 100 000 persons. In wealthier districts, the figure is estimated at an average of 35.6. In the Eastern Cape and the Northwest province, for example, there are between 11.5 and 12.7 doctors per 100 000 people. In the Western Cape and Gauteng the figure is between 25.4 and 31.9 doctors per 100 000 patients (Couperetal., 2009:54).

Times Live (2010) points out that the most recent statistics that were revealed in parliament reported that the country needs an additional 46 000 nurses and 12 500 doctors. Eastern Cape health spokesperson, Sizwe Kupelo, said that the province was the most affected and that they tried to alleviate the problem by offering bursaries to

students who are prepared to work in rural hospitals once they become qualified. As a result of such commitment, in 2007 R45m was spent on bursaries for 473 students, and was increased to R 98 m in 2008. However, 89 of the 473 students that benefited did not fulfil their promise, as some are working in other parts of the country, while others migrated abroad.

Naicker et al.(2009:60) indicated that Australia, Canada, Finland, Germany, the United Kingdom and the United States have been the main receiving countries since 1996 of South African doctors. With an estimated 23 407 South African doctors in Australia and New Zealand, while Canada and the United Kingdom have 8 999.Increased by more than 60% between 1996 and 2006, and have been particularly poached because of the high quality medical training that they received in South Africa (Bezuidenhout et al., 2009:211).

World Health Organization statistics for 2010 place the ratio of doctors to patients at 8 doctors to 10 000 patients. Zimbabwe has two doctors per 10 000 patients, and when these figures were compared to Spain and the United States, it stood at 38 doctors to 10 000 patients in Spain and 27 doctors to 10 000 patients in the United States (Dell, 2011). Breier and Erasmus (2009:114) hold that 'South Africa is better supplied with doctors than its immediate neighbours, but grossly under-supplied when compared to developed states'.

Breier and Erasmus (2009:116) posit that the government's personal and salary information system, PERSAL, revealed that 5 103 public sector vacancies for medical practitioners were available in 2006 alone.

This figure was supported by Breier (2008: 31) who indicates that from April 2004 to March 2007, the study showed that there were 112 828 vacant positions being advertised, 30.52% for managers and 17 479 vacancies were for health professionals, which accounted for 30.76% of all professional vacancies over the three year period (2004 to 2007). The largest share of job vacancy advertisements in the health sector category were for midwives and nursing staff at 43.59%, followed by vacancies for medical practitioners at 35.87%, and for health diagnostic and promotion professionals at 16.04%. Health therapy professionals accounted for 4.50% of the advertised vacancies.

Breier and Erasmus (2009:113) hold that both internal and external dimensions are considered to be reasons for the shortage of doctors in South Africa. Lewinsohn and Arnold (2010:289), as well as Bezuidenhout et al. (2009:213), complement the above statement by attributing the shortage of these health professionals leaving South Africa before 1990 primarily to the Apartheid system and to push and pull factors. According to Lewinsohn and Arnold (2010:289), other reasons for leaving included uncertainty about the future, safety issues and professional development, crime and the higher rates paid abroad (Bezuidenhoutet al., 2009:2013). The implication of this development is twofold: long queues in public hospitals and clinics, as a visit to one could take an entire day and the fact that many sick patients are unable to see a doctor because there are simply too few doctors available.

### 3.8.1.4    Education

The South African Education system is characterised by a declining Grade 12 pass rate, low standards of education, a lack of resources, under-qualified teachers, weak management and poor teacher morale and higher failure rates at Universities and Colleges. These factors are seen as the main contributors to the national skills crisis. According to the South African Civil Society Information Service (SACSIS), these developments are obstacles to the production of skills that the country's economy requires, offering little hope of addressing the skill shortages (SACSIS, 2009 as cited by Rasool & Botha, 2011:2).

Despite all the money that the government spends on education, the outcomes are inadequate. According to Pandor (2008), a 2008 survey revealed that only 10% of the children scored above 70% and the literacy rate of 36% and 35% of a numeracy rate amongst Grade 3 children. In addition, the vast majority of pupils who do not complete their schooling are wasteful.

In South African only 30.9% of adults have completed high school compared to developed countries where 69.8% of adults completed high school **(**Rasool & Botha, 2011: 2).

The shortage of teachers in South Africa is a controversial issue according toBreier and Erasmus (2009:200), who posit that there is an extensive body of knowledge that

reveals skill shortages in rural schools and disadvantaged communities. Whether these statements are true or not it does reflect the concern of the public regarding the state of education in the country. The Teachers Union (SADTU) has been vocal about it and consistently declared that the country is facing a shortage of teachers based on teachers' experiences of overcrowded classrooms, shortage of mathematics and science teachers, resulting in the kind of inferior education offered at black schools.

However, there is a contradiction regarding the need for teachers. SADTU claimed that there are 50 000 unemployed teachers who need to be employed before foreign recruitment can be considered. The union conducted a study to compare the number of trained teachers and those who were placed in jobs. The result was that there are trained teachers that are unemployed, but the nature of training is questionable. To support this finding, the director general of public service and administration, Richard Levin, said that there are 1 000 unemployed teachers in the Limpopo province.

The Solidarity Research Institute (2008:4) and Villiers (2007:69) hold that South Africa is experiencing a shortage of staff in the education sector. Phumzile Mlambo-Ngcuka, former deputy president of the Republic of South Africa, highlighted teacher shortages and promised that Joint Initiative for Priority Skills Acquisition (JipSA) would support impoverished schools to increase the number of teachers who teach mathematics, science and language skills.

In addition, the Democratic Alliance (DA)(2008),held that in the developing world, South African children receive the worst quality of education and that the government has done little to resolve the problem of teachers' shortage in Schools. Then Minister of Education, Naledi Pandor, insisted that there was no shortage of teachers, although the report that was released by the Education, Training and Development Practices (ETDP) SETA held that the Western Cape alone had to find more than 2 500 mathematics teachers, 2 500 natural science teachers and 1 500 language teachers by 2010, or else it would face a shortage. The same applies to other provinces that faced equally large shortages (Democratic Alliance, 2008). According to Silva (2008), more than 1 700 South African teachers are unqualified to teach at secondary schools.

Contrary to all statements above, Breier and Erasmus (2009:200) posit that the Department of Education (DoE) and the Department of Labour (DoL) consistently

claim that there are no shortages of teachers but nonetheless agree that there is a problem in certain areas where the skills shortage should be addressed. The latter department may be in agreement with the statement made by Silva (2008), who is of the opinion that maths and science teachers are in short supply nationally, although the Western Cape is in a better position than other provinces..

Govender (2008) found that there were almost 600 vacant posts for professors and lecturers at five universities. The institutions and the vacant posts are as follows: the University of Johannesburg needs 142 lecturers and 28 associate and full professors in nine faculties; the University of Pretoria has advertised 127 posts since January; the University of Cape Town has 75 academic vacancies, following 40 resignations this year; the University of Zululand needs 31 lecturers and 14 professors and the University of Limpopo needs 182 academic staff members. Staffs from the country's 23 higher education institutions are being poached by the private sector and they are battling to attract replacements, leaving wide gaps in the accounting, statistics, engineering and health sciences departments.

Evidence from research and various databases suggests that South Africa is not facing teacher shortages; but rather a shortage of teachers in certain subjects such as mathematics and science. This is supported by Rademeyer (2005) cited in Villiers (2007:69), who claims that the South African Director-General in the Department of Education has said that South Africa is not facing a general shortage of teachers, given the fact that there were 11 000 teachers without posts, according to the Department of Education's database.  Breier and Erasmus (2009:202) argue that, numerically, there might be an adequate number of teachers in the country, but the problem is related to distribution, according to geographical location, grade levels, subjects, qualifications, skills, quality, race and language. According to Villiers (2007: 69) as a result of a shortage of Mathematics and Science teachers in both urban and rural public schools, the Council of Education Ministers has opted to recruit qualified teachers from Zimbabwe and India to fill some vacant posts as a short-term solution.

Breier and Erasmus (2009:200) citing the DoE (2006),hold that a shortage of mathematics and science teachers in South Africa's rural areas dates back to the quality of education that was provided to most of the country's citizens in the past.

During the Apartheid regime, the provision of education was racially divided. While resources were lavished on schools for whites, schools that served blacks were systematically deprived, not only of quality and qualified teachers, but also of physical resources and teaching support materials such as text books and stationery. Consequently, the quality of teachers has always been uneven across racial groups, with blacks receiving inferior education that kept them out of the modern sector of the economy, thus ensuring that blacks were available as a steady supply of cheap labour in the agricultural, mining and domestic service sectors (Fiske and Ladd, 2005;Breier and Erasmus, 2009:209).

## 3.9 WESTERN CAPE MIGRATION USING SKILLED AFRICAN IMMIGRANTS TO ADDRESS THE SKILLS SHORTAGE IN SOUTH AFRICA

In 1652 Dutch and Portuguese traders landed at the southern tip of what is today known as South Africa and established a spice route to the east, founding the city of Cape Town. In 1806, after the British seized the Cape area, many of the Boers trekked north to found their own republics.

Located at the southern tip of the African continent, the Republic of South Africais home to over 47-million people of diverse origins, cultures, languages and beliefs. It is estimated that South Africa's population stands at some 47.9-million, up from the 2001 census count of 44.8-million. Blacks are in the majority at just over 38 million, making up 79.6% of the total population.

The white population is estimated at 4.3-million (9.1%), the coloured population at 4.2-million (8.9%) and the Indian/Asian population is just short of 1.2-million (2.5%). The Western Cape, which is the focus of this study, is one of nine provinces in South Africa. It is the third largest province in terms of geographical area and the fifth largest in terms of population. The estimated population is approximately 4.5 million, about 9.7% of the national total (Framework for the development of the Western Cape, 2004-2007).

According to Mutume (2003:1), like many other developing and developed countries, although at a different level, South Africa is affected by brain drain, be it in the private or public sector. Pressly (2007:2) holds thatmore than 40000 jobs in the public sector

are vacant and this is owing to the absence of a skilled labour force that is required to fill the vacancies, either because of brain drain or because of the lack of experienced people to fill the positions. Due to historical perspectives and contexts, whites, Indians and Chinese are more easily absorbed than their black counterparts.

South Africa's refugees and asylum seekers could be the solution, but the government is failing to efficiently utilise these individuals and turn the brain drain into brain gain. The question arising from all this is why is it that the government is not taking full advantage of the existing pool of skills, which comprises refugees, asylum seekers and immigrants of African origin. Instead, they prefer to import Cubans and Iranians. The answer could be pursued in a future study.

The benefits of employing a diverse labour force can only be felt once a real data base exists and individuals who have the necessary skills and experience work to provide a better life for all. Having said that, it is important to understand that the government also has a backlog of vacant posts, which is made worse by a lack of qualified and experienced individuals.

In order to resolve this problem, the government has been considering the Diaspora and seeking skilled individuals from other countries to fulfill South Africa's needs. Why not take advantage of what is happening in Zimbabwe and the rest of the African continent and the influx of immigrant refugees and turn it into a brain gain for South Africa?

South African migration is characterized by informal, unregulated and undocumented migrants and excessively regulated contract employment in the mining industry (Crush, 2003). Current government policy is focused on undocumented migrants and efforts are being made to close the borders with wire. This long history of border jumping has benefited farmers who tend to use migrant labour of which there is a steady and cheap supply. Areasmostly target by undocumented migrants who come to South Africa are commerce, construction and small business (Crush and Williams, 2005).

South Africa is surrounded by Zimbabwe, Mozambique, Namibia and Lesotho, andis the main migrant receiving country in the SADC region. Black et al.(2006:116) note

that there is a revolving door syndrome 'from these nations to South Africa', where migrants are deported in the morning and return the following day. As there is a demand for cheap labour in South Africa and visa costs are high, there is a need for the easily disposed of labour that undocumented migrants offering certain sectors of the economy. As the Global Commission for International Migration observed in one of its reports: '*in several parts of the world certain sectors of the economy such as agriculture and construction depend significantly on migrants with irregular status, willing to do difficult, dangerous jobs with little security and low wages*'.(Waller, 2006).

South Africa has been debating the problem of skills shortages as part of their developmental agenda, with serious concerns being raised as to why the country finds itself in a dire and precarious situation, when graduates are produced yearly from different fields. Maharaj (2004:2) holds that despite the vast disparity in poverty, unemployment and inequality in South Africa, it is still home to many African immigrants from several parts of the continent. Many of these immigrants perceive South Africa as the land of milk and honey, withendless economic opportunities.

In the context of migration, new migrants normally demonstrate that they are risk takers, energetic, hard workers, entrepreneurs, while the most useful immigrants are those who have high academic and technical qualifications, some of them are entrepreneurial, people with special craft skills and vocational experience (CDE, 2007:32).

Maharaj (2004:2) mentions the importance of acknowledging that although South Africa is perceived as being plagued by a massive disproportion of poverty and unemployment, the country is still in a better position when compared to other African countries, and is still the driving force and the economic powerhouse of the continent. For this reason, as long as widespread poverty and high levels of inequality prevail on the continent, South Africa will continue to attract migrants.

According to de Lange (2007), the government is failing to attract enough foreign workers to fill the critical skills shortage in South Africa despite efforts by the Department of Home Affairs. According to the department, only 9 percent of the 35 200 "scarce skills quotas" that were made available to foreigners in 2007 have been taken up. The rationale is to facilitate less restriction of goods and services.

Alarming statistics that affect skills shortages in South Africa are briefly exposed to include the following: every 5 years the RSA loses 30% of its executive workforce to Australia; UCT trained 12 actuaries at the end of 2008, 7 left South Africa and 5 secured employers abroad before they graduated; of 100 first year students that enrol at university for B.Com. Finance, only 25 will pass and South Africa has one engineer for every 3 200 people, while China and India have 1:150 and Europe 1:250-300.

Employing skilled foreigners could be part of the answer to South Africa's skills shortage, following the globalisation phenomenon. It does bring along administrative challenges, as 34 825 work permits in 53 occupations were allocated (Home Affairs Minister, April 2007).

In addition to skills shortages, corporate South Africa faces other challenges that include: competition with strong employer branding; Affirmative Action; baby boomers retiring; lack of knowledge transfer between generations; a leadership crisis; a demanding workforce and golden handshakes (retrenchments) (News - AIMS South Africa**)**. For reasons mentioned above, it is arguable that South Africa finds itself in a fortunate position by being home to many, amongst them highly skilled professionals, semi-skilled and unskilled who all come from different parts of the world, particularly from the African continent. Thus, if well utilised, this force can perform a significant role in the South African economy and its human development. It is important to emulate the positive aspects from United States and Japan, whose migration has positive effects on economic growth and social integration.

In the United States, it was found that a one-percentage point higher net migration rate is associated with a 0.1 percent higher growth rate. When amenity proxies are added to the model (temperature and population density), the coefficient becomes insignificant for both the United States and Japan. There is no technical aid from the state to recruit foreigners who are already here; they should merely be made essential contributors to the growth and expansion of the national economy (Wong and Yip, 1999:1).

Wong and Yip (1999:1) indicate that international experience suggests that skilled immigrants and migrants make important contributions to any country's economic growth and development. They can close the gap that is created by emigrating skills,

as they bring innovation to the host country's economy through new ideas and skills. Studies have shown that skilled immigrants do not fit the popular negative stereotyping. One way to assess their potential value to South Africa is to adopt a more open-door attitude towards skilled migration (Mattes et al., 2000:1).

Murray (1995:374) holds that from their inception, the mining and agricultural sectors in South Africa have depended on the migrant labour force. Many of these immigrants enter South Africa undocumented, whilst others cross borders legally to escape, hunger, poverty and instability.

There have been discussions in South Africa regarding whether African immigrants contribute to the country's economic progress.

A number of authors hold that immigrants in South Africa are often considered to be a threat to the social and economic interests of South Africa in the sense that several employers see them as a source of cheap labour and they are repeatedly accused by locals of stealing their jobs, while others hold that skilled immigrants invest and add entrepreneurial talent to the economy(Walker, Ellis & Barf, 1992:235; Mattes, Taylor, McDonald, Poore and Richmond, 1999:7; CDE, 2000; Mattes, Crush and Richmond, 2000:1).

Although this may be the perception in South Africa, the CDE (2007:31) and Mattesetal., (2000:1)posit that international experience assumes that skilled immigrants often contribute meaningfully to the economic advancement of the host countries through their entrepreneurial skills and hard work. Mattes et al.,(2000:1) mentions that these same people can fill the gaps that are created by emigrants through new ideas and skills. There should be a greater awareness of the profile and contribution of South Africa's current stock of skilled immigrants.

All the remarks above are supported by the CDE (2000), which holds that developed nations have long understood the benefits that skilled immigrants bring to the host country and as a result, they have taken the opportunity to develop and attract highly skilled professionals to the advancement of economic activity in their countries. Nations such as Singapore, Germany, Ireland, South Korea, the United States and the United Kingdom have all sent poaching expeditions to India to try and recruit

information technology engineers to bridge the alarming shortages that exist in information technology and to bring the skills back home.

The United Kingdom is another nation that has developed a special programme to attract South African nurses. The CDE (2000) has previously argued that many immigrants have entrepreneurial talents and ambitions and are, to a certain extent, prepared to take risks and above all possess the necessary drive to survive and succeed in a foreign country.

The CDE (2007:31) posits that South Africa has already witnessed the benefits that it can enjoy if it decides to recruit foreign skilled professionals. One way of looking at the benefits and contributions is by observing the positive impact that people from Malaysia, India, Pakistan, Eastern Europe, the Middle East (Lebanon) and the Far East have had on the country, as they have all contributed significantly to South Africa's skills base.

According to the CDE (2007:31), recent gains have also been from the African continent, where many highly skilled personnel have been appointed to various academic positions in the country's top universities and a number of them become public figures.

To return to the debate regarding the use of African foreigners in the country to bridge the skills shortage, the CDE (2007:32) points out that numerous South African leaders have acknowledged the potential that immigrants have in contributing to the skills that are in dire need in South Africa to promote economic growth. The former president, Thabo Mbeki, expressed his view publicly concerning the need to improve migration laws and procedures to enable the country to attract foreign skills. The former chairperson of the Home Affairs Parliamentary Portfolio Committee posited that South Africa needs a manageable immigration system that can stimulate economic growthand development and create jobs for South Africa (CDE, 2007:32).

The CDE (2007:46) holds that South Africans should not see the importation or recruitment of skilled professionals from abroad or immigrants residing in the country as a threat to them, but rather as something that will close the gap left bythe failing education and training system of the country, and by so doing help to manage

developmental projects that will improve the lives of many and create business opportunities that will in turn create employment opportunities.

Wa Kabwe-Segatti & Landau (2008:126) posit that the shortage of skills in South Africa cannot be solved overnight, especially at a time when the country's education system appears to be scantily adapted to generate the kind of graduates that are needed in the labour market. Until South Africa improves its educational system and changes peoples' attitude towards education, alternative means should be considered, taking into account that skills acquisition and entrepreneurship are hardly aspects that can be achieved in a short period, considering that many South Africans lack entrepreneurial skills.

Coetzee &Keevy (2006:1) suggest that one way of addressing South Africa's skills shortage is foreign recruitment. This suggestion has its own challenges and implications for source countries, recruiting countries and, most importantly, for workers. To illustrate the depth of the public sector's lack of skilled individuals as a result of brain drain, exchange or circulation in the public sector,the figuresthat have been reported below were taken from the government's pay system, Persal.

According to the CDE (2008:22), should South Africa take the ethical stance of refusing to strip a neighbouring country of its human resources, it could be self-defeating and could encourage them to enter the global Diaspora instead. Coetzee and Keevy (2006:1) believe that foreign recruitment is a short-term solution for South Africa's skills shortages.

Several sources, including the CDE (2007:46) and Maharaj (2004:14), have shown that immigrants are net contributors and not parasites, as many in South Africa consider them to be. This was proved by Meintjies (1998:20), who holds that immigrants are, on average, healthier, more energetic and better educated than people in the host population. Subsequently, they draw comparatively less on social welfare and other social services.

Many immigrants pay tax through their entrepreneurship activities and make a positive injection into local economic development. Maharaj (2004:14) citing Rogerson (1997), holds that in South Africa immigrants own businesses that employ local residents and

have become a central part of the small, medium and micro enterprise sector, changing the socio-economic structure of the inner cities. Despite the lack of sympathy from locals, these immigrant entrepreneurs are steadily encouraged to expand their enterprises, creating significant impacts in the lives of a number of South Africans regarding job creation and poverty alleviation.

Maharaj (2004:14) indicates that should the stigma of illegality be removed, it is likely that such migrants could contribute to the local economy through the creation of employment opportunities, whilst training locals and leaving the majority of them compelled to pay taxes that could increase the resource base of the government for reconstruction and development.

Gwaradzimba and Shumba (2010:210) posit that like Zimbabwe and other African countries, South Africa has not been spared the brain drain of skilled professionals from various sectors of the economy. Statistics South Africa (StatsSA, 2004) reported that the number of skilled professionals who left the country rose by 62%. For example, 192 medical practitioners left in 2003 compared to 117 in 2002. Teachers also left in large numbers to work in Britain and the USA, with 666 teachers leaving in 2003, compared to 410 in 2002; while 736 people in the accounting profession emigrated in 2003, compared to 529 in 2002. This implies that the more professionals emigrate, the worse the conditions for those who remain.

Can Africa's poor countries or South Africa obtain a positive return from the brain drain? The answer is yes and no, much like in constructive debates. Easterly and Nyarko (2005:2-3) estimate that the transfer of people from Africa to the United States during the times of slavery was larger than the modern time brain drain and recent migration, as cited by the New York Times article (2/21/2005), which also alluded that the flow of legal immigration from Africa to the USA is at 50 000 per year, which is only now catching up with the slavery era numbers.

Lundy (2008:9) contends that attracting foreign skills to the country requires removing obstacles to immigration for professionals, and this has happened recently with the passing of the Immigration regulations that took effect on 1 July 2005. The more user-friendly immigration laws are, the more positive the effect it will have on the brain gain. The number of foreign students who study at South African universities has also grown

– from 12 600 in 1994 to 35 000 in 2001.  Most of these students originate from other African countries. A survey in the USA found that 79% of Indian and 88% of Chinese doctoral recipients from US universities in 1990-91 were still working in the USA in 1995.  If this is an example of what we can expect, it suggests that numerous foreign students will choose to stay and work in South Africa when they complete their studies. The benefits or impact of brain drain can be divided into two types of benefits, namely **tangible** and **intangible.**

In discussing the pros and cons of brain drain, a number of variables remain unquestionable. What is the economic impact of the early brain drainers who helped to develop writing in local languages? Or the impact of those whose insights and energies introduced some of the first formal schools in some areas? What is the economic impact of having leaders trained to be able to deliver independence to African countries? Many of these intangible benefits of the brain drain persist today. What is the value of returned brain drainers who bring back ideas to establish modern private investment banks and computer software companies? (Easterly and Nyarko, 2005:2-3).

The facts indicate a number of examples. US scientists and their origins, Nobel Prize winners and soccer legends such as Pele, Eusebio and several others in the French national team. There is also evidence based on remittance (Easterly and Nyarko, 2005:7).

An interesting feature of the African brain drain is the desire by many to maintain ties with their home countries; given the history of the continent and that many African countries experienced slavery and then colonialism. Perhaps the strategy would be to send many people abroad to acquire new skills and return to develop the continent. When you travel in many West African cities it can be seen that people who have lived abroad generate much of the economic activity, giving meaning to brain circulation and the revolving door process.

According to Easterly and Nyarko (2005:11), the scholarships and bursaries given to African university students for education in the USA, UK and Canada provided them with quality education, increased the human capital of those countries, enabled personal prospects of a better life and allowed their families back home to access

education paid for with remittances. Those who returned either temporarily or permanently also benefitted their local community and their country as a whole. An aspect rarely mentioned in this discussion is that those who successfully migrate abroad often enjoy improved standards of living as do their families.

According to Autumn (2008), there is a renewed awareness of the negative impact of skilled migration on Africa's economic development. Growing evidence suggests a substantial loss of African human capital robbing Africa of its best brains. There is no scarcity of policy instruments considered suitable for tackling this "brain drain" problem.

For reasons mentioned above, Coetzee and Keevy (2006:1) hold that if a well-managed system is put in place to manage migration and immigrants with regard to their qualifications, South Africa will benefit, as it keeps tabs on the statistics and calibre of people who enter the country. This would allow for plans to use the available skills, no matter where the owners of the skills are from.   This response relates to the skills shortages that emanate from emigration in relation to other factors; hence a comprehensive response is required.

It is also imperative to understand that some of these foreigners have impeccable skills and credentials that have been acquired over a long period. It is important to remember that other countries such as Ireland have turned disastrous brain drain into brain gain and there is no reason why South Africa cannot do the same (Lundy, 2008:6).

### 3.9.1    The impact of immigration on the Western Cape

From the literature sources that were consulted, this study found several words that are used to describe immigrants. These include foreigners, border jumpers, non-citizens, African migrants, undocumented migrants, refugees, asylum seekers, illegal migrants and illegal aliens (SAMP, 2001).

The word '*amakwerekwere*' is mostly used amongst the low-income community members, often used to describe foreigners in a derogatory manner in reference to an unwanted foreigner. A word that was originally used to refer to people who spoke a language that could not be understood or was perceived as foreign.

The UN 1951 Convention defines a refugee as: 'Any person who…. due to a well substantiate fear of being persecuted for being from a particular race, religion, or any other reasons such as membership of a particular social group, political opinion, and seeks security outside the country of his (her) nationality, and does not have the protection of that country; resulting in being unable or, owing to such fear, is unwilling to return to it.' The South African Government has formally subscribed to this definition. Dorrington (2002) citing the Human Rights Watch (2001),is of the opinion that asylum seekers should be afforded the same rights as refugees until such time as it is determined that they do not qualify for refugee status.

From 1994 to 1999 it was reported that 14 000 people had applied for political asylum in the Western Cape. Statistics released by the Cape Town Refugee Forum in 1999 estimated that there were more than 11 900 refugees in Cape Town. It is not possible to acquire accurate date regarding refugee number but it is clear there are a significant number of foreigners in the Western Cape. In 2002 the Cape Town Refugee Centre estimated that there were about 19 000 refugees who lived in the Western Cape, and about 69000 in the country as a whole..Although contradictory, some authors put the number at closer to 25 000 refugees (Dorrington 2002).

The figures above do not include non-refugee foreigners or persons who live in areas other than Cape Town. Using the census as a source for data,Dorrington (2002) estimates that the number reaches between 60 000 and 80 000 for the Western Cape.

From this nonconsensual and often contradictory information, it is reasonable to assume that the number of African foreigners who currently live in the Western Cape number anything between 30 000 and 50 000 people. This number is considered relatively small if compared to the whole country, if one is to believe a 1995 press report, which estimated the numbers to be between 5 million and 10 million people residing illegally in the country (Cape Argus, 1995).The figures provided by the Cape Town Refugee Forum hold that 28% of the refugees are in the Western Cape, representing a high proportion of the country's immigrants if compared to the 2002 figures of 19 000 refugees in the Western Cape and 69 000  in the country as a whole.

According to Dorrington (2002), once again depending on 1996 census data, the proportion of females is estimated to be close to one third of the total. The 1996 census

led the researcher to conclude that most African foreigners in the Western Cape are single males in the of 30 to 40 year age group, although some public officials believe that they came as families. Statistics released by the Cape Town Refugee Forum in 1999 put the numbers at an estimated 11 900 refugees in Cape Town, 10 000 of whom are male, 1 000 women and 900 children. It was, however, reported in two interviews with officials that Ethiopians tend to arrive in the Western Cape with their families. In a Migration Policy Series report, from a sample of 501,McDonald et al. (1999)constructed the following general profile of migrants in Gauteng, the Western Cape and Kwa-Zulu-Natal.

The majority of the migrants are in the country legally and despite all difficulties in obtaining the official documentation, the vast majority entered South Africa through designated customs points, using formal modes of transport, and has pre-arranged accommodation. Migrants feel strongly that they should be offered the same social rights as South African citizens, for example, opportunities for a job, the same access to medical services and so on but should not necessarily be allowed to vote in South African elections.

Migrants take border issues seriously and all support immigration when it is applied in a fair and humane manner. Many migrants are of the opinion that South Africa has a moral obligation to other African countries for their contribution in the fight against Apartheid and should therefore embrace them now that it is their turn. Perceptions and attitudes held by public officials, when compared with these findings, provide SA a totally different viewpoint. The perception of many migrants is that South Africa perceives them to be a problem and that the country would be better off without them. McDonald et al.(1999), hold that the policy implications that are pertinent to this study are as follows:

- Migration would appear to be a highly regularized and legalized process and it is important that South Africa build on this process rather than force migrants and migration into more clandestine modes of operation.
- New legislation pertaining to immigration should be in line with the Bill of Rights in the Constitution of the country.

- There should be more education and discipline should be instilled into immigration officers and security authorities regarding human rights abuses at a more practical level.

- Cross-border movement immigration should be seen as important for socio-economic stability in the region and policy-makers should recognize the need to address the more microeconomic impacts that migration policy can have on households in sending and receiving countries.

- Migration to South Africa is now a pan-African problem and will continue to increase.

- It is important that policy-makers are sensitive to regional differences and that they acknowledge the new role that South Africa has with regard to the movement of people on the continent.

### 3.9.2 Legal, policy and political aspects

The Immigration Bill (2001) is the latest piece of legislation that controls migration to this country. This bill augments and updates the Aliens Control Act (1991), the Aliens Control Amendment Act (1995), the South African Citizenship Act (1995) and the Refugees Act (1998), amended in 2008, section 1 of Act 33, and the Immigration Act no 13 of 2002, which was amended in 2004. The Immigration Bill deals with the Immigration Amendment Act, 2011 with, *inter alia*, conditions relating to temporary and permanent residence.

A significant portion of African migrants in the Western Cape are refugees from conflict zones, which prevail in a number of African countries (Boaden, 2002:11). The Refugees Act (1998) makes provision for foreigners to seek asylum. In terms of Section 21 of this act, formal application for asylum should be made and the permit may be extended by a Refugee Reception Officer as many times as necessary. Such a permit supersedes any permit that is issued under the Aliens Control Act (1991).

In 2000 a change occurred in the official policy. Due to a backlog, if anyone coming into the country applied for an asylum section 22 permit, it was granted. Having this permit did not allow them to work until their cases had been processed. In terms of the new Home Affairs system, applicants will no longer be issued with Section 41permits (Boaden, 2002:11).

According to Boaden,(2002:11),the South African Government faces a dilemma. On one hand it needs and wants to lure people with the right skills into the country, while at the same time keeping out those considered to be undesirable and perceived as not being of any benefit to the economy.

According to Boaden, (2002:11),numerous migrants set themselves up as informal traders and employ South African citizens to do the actual selling, while they perform more of a managerial role. This occurs mostly when there are language difficulties or when customers are suspicious of dealing directly with foreigners.

There is apparent confusion as to what the government's stance is with regard to this matter, as a number of government ministers have spoken out in harsh tones against xenophobia but others speak of the threat of the country being "flooded" with refugees to compete for the country's scarce resources (Sunday Independent, 2001a cited in Boaden, 2002:11).

A constraint that is slowing the political asylum procedure is that a number of migrants seeking economic opportunities do not face any political threat back home, resulting in the saturation of the legal process (Boaden, 2002:11).

Adding to South African legislation with regard to refugees and immigration, there is also the issue of migrant's rights under international law. According to a report by the Human Rights Watch (1998) cited by (Boaden, 2002:11):every person in South Africa is afforded a certain set of human rights under international law and the principle is that if a person seeks security for fear of persecution on any grounds, such person is compelled to be given protection and remain in a country where:

1. He or she may feel that his/her rights are protected or
2. His or her life, physical safety or freedom of expression will be.

## 3.10    ECONOMIC ACTIVITIES OF FOREIGNERS

Although many African migrants initially come to South Africa and the Western Cape due to political unrest in their own countries, the relatively good health, economic and education services available in this country are also pull factors in attracting them. This section deals with the way in which migrants survive economically and make a living

and, in many cases, prosper in the Western Cape. Migrants can be divided into two types in terms of the economic activities they pursue:

- On the one hand are those regarded as 'small time' entrepreneurs who engage in legal and quasi-legal activities such as street vending and other small businesses, allowing them to make a reasonable living.
- Conversely, there are the 'big time' entrepreneurs who often indulge in illegal activities in the beginning, including selling drugs, car stealing syndicates, false document producers, pimps, arms dealers, and protection rackets but in a later stage change to legitimate business and become moguls.

Normally these two groups operate independently, and the 'big timers' often force the 'small timers' out of trading areas or housing. Another characteristic of the activities in which migrants engage is the level of specialization of each nationality.

For example, the Somalians are almost exclusively active and successful as small shops owners, street vendors, hawkers and taxi owners. This may be attributable to the fact that Somalians are, almost without exception, Muslims. There are of course, Muslim migrants from countries other than Somalia, but in fewer numbers. Table 3.3 below is a breakdown of economic activities by country. The information presented here is a generalisation and may be applied to the country as a whole (Boaden, 2002:11). This study did not contradict these findings.

**Table 3.3: Types of economic opportunities and predominant country of origin of practitioners**

| Activity | Source Country |
|---|---|
| **1. LABOURERS** | |
| • Construction | All SADC residents |
| • Farms, Hotels | Zimbabwe, Angola, Mozambique |
| • Domestic workers | Malawi, Swaziland, Zimbabwe |
| • Mines | Lesotho, Swaziland, Mozambique |
| **2. ENTREPRENEURS & ARTISANS** | |
| • Crafts | Malawi, Zimbabwe, Swaziland, Cameroon |
| • Grey goods (electronic) | India, Pakistan, Nigeria |
| • Cigarettes, sweets | Somalia, Tanzania |
| • Imitation labelled goods | Taiwan, Pakistan,China |
| • Security | Angola, Congo |
| Other businesses that migrants operate: Hairdressing salons, car repairs, clothing shops, import-export | Congo, Tanzania, Nigeria and various others |
| **3. SHADOW ECONOMIES** | |
| • Drugs | Nigeria, Morocco |
| • Shark fin/perlemoen poaching | Taiwan, China |
| • Passport rackets | Congo, Nigeria |
| • Prostitution | Mozambican women, Russian and Balkan women |
| • Protection rackets (night clubs) pub owners | Morocco, Russia, Nigeria, Congo |
| •Tele-shops, restaurants (operated from houses) | Nigeria, Congo, Morocco, Senegal |

**Source:** Adapted from Mail & Guardian (1998)

Their enterprises have made them unpopular with local people in the Western Cape, as some of the most efficient street-market stallholders are immigrants from other African countries. Employers prefer having immigrants as employees, because they have proved to be far more reliable and hardworking than the locals. They are prepared to take on jobs and to work at lower wages than the locals (Cape Argus, 1999). African migrants differ in many ways from their local counterparts in the manner in which they operate within the economic environment. They show a high degree of entrepreneurship in identifying and taking advantage of economic opportunities (Boaden, 2002:11).As a result, the locals' attitude is that they do not like what they perceive as 'competition'.

Numerous immigrants become street vendors and create job opportunities for the local population as hawkers. At times this is to overcome language barriers and prejudices that locals may have with regard to dealing with foreigners. Because of the low wages, this work is mostly performed by women as the local unemployed men are reluctant to accept such low wages. Rogerson (1997), writing in the Migration Policy Series, established that new immigrant businesses are operated mostly by single, young males as they cannot afford paying people and on average work 64-hours a week.

Rogerson (1997) also established that there is a considerable difference between small businesses, which are operated by non-SADC migrants and SADC.These differences include financing methods; the non-SADC businesses use finance brought in from other countries, whereas SADC businesses use finance generated from within the country; support networks: the non-SADC businesses have international connections while the SADC businesses have more local networks; levels of education; non-SADC entrepreneurs are better educated and have broader strategic horizons; job creation; the non-SADC businesses create more jobs per business than the SADC businesses.

Foreign street vendors appear to locate in pockets, where presumably they are able to enjoy mutual support. For example, in the Bellville CBD foreigner vendors outnumbered locals by about two to one, whereas in Parow, there are far fewer foreigners owing to the hostile attitude of the local vendors. There are also many other ways in which foreigners are able to make a living that are not discussed here.

McDonald et al.,(1999) and Peberdy's (2000) findings, posit that Africans are motivated to migrate to South Africa mostly, but not entirely, by economic opportunities and that they are educated, motivated, enterprising and skilled, find work easily, although they are poorly paid. While it is not possible to establish the extent, many migrants send money back to their homeland (Peberdy,2000).

## 5.11    MIGRATION PATTERNS AND MOTIVATION

While exact numbers are not available, the Western Cape draws foreign migrants from almost every nation in Africa and not only from SADC countries. The majority of migrants come to the Western Cape via Mozambique, Namibia and Zimbabwe. The incidence of foreigners arriving by sea, either legally or as stowaways, is minimal. A number of migrants do, however, attempt to leave illegally from the Cape Town port with Europe as their intended destination. In the past, most migrants came to the Western Cape via Johannesburg. Johannesburg has now become *'flooded' with foreigners looking for economic opportunities*'; and numerous migrants are now heading directly to the Cape. Several migrants follow their relatives and friends who normally inform them back home of prospects in the Western Cape. It would seem to be more a case of young men seeking a new life in a foreign country with good prospects (Boaden, 2002:14-15).

The high incidence of youngish men unaccompanied by females has resulted in a high incidence of fraternisation with local females, which has led to accusations that '*these foreigners are stealing our women*'. The Somalians, who are mostly Muslim, religious and insular, do not participate in these practices. Although many migrants come to the Western Cape with the view of returning when things improve in their own countries, most see themselves as being here indefinitely.

## 3.12    LOCAL ATTITUDES TOWARDS FOREIGNERS AND THE ISSUE OFXENOPHOBIA

Boaden (2002:14-15) holds that there is no denial of the existence of xenophobia in the country and to a significant extent in the Western Cape and it manifests in a number of ways, such as:

- The manner and attitude of law enforcement officials and the way the law is enforced;

- The attacks by the local informal business owners of any businesses operated by foreigners;

- The disposition of local residents towards foreigners who live in their communities;

- Various politicians 'public statements;

- General population attitude towards African immigrants and

- The underlying ethos of legislation and, in particular, the regulations.

Former president Mbeki's public and official viewpoint with respect to xenophobia may be found in the following statement:

> *'Our intimate relationship with the rest of our Continent is illustrated by the significant number of fellow Africans who have sought to settle in South Africa since 1994. Undoubtedly, this trend will continue, adding a new richness to our society. Many of these new immigrants bring with them important skills that our country needs. Many of them are also people who are creative, full of initiative and driven by an enterprising spirit.*(ANC Today, May 2001 cited inSAMP, 2001).

Regardless of this statement and the accompanying legislation, xenophobia is a major issue, faced daily by African migrants in this country. In many ways this is not surprising, given the state of the economy and the shortage of social and economic resources. SAMP (2001) has produced an important and comprehensive report dealing, *inter alia*, with the attitude of South Africans to the volume of immigration, a comparison of attitudes held by South Africans with those held elsewhere in the world, attitudes towards amnesty, perceived threats from immigration, attitudes towards government policing measures and the likelihood of people taking action against foreigners in their communities or in the workplace. Findings of relevance are:

- South Africans as people are intolerant of outsiders (from anywhere) living in the country;

- South Africans in general, do not support the idea of immigration amnesties, with white respondents (76%) being more antagonistic than blacks (40%);

- The majority of South Africans believe that immigration has a negative impact on the country and

- South Africans favour the use of force for controlling immigration on the country's borders. A third of the respondents indicated that they would not mind preventing migrants from any neighbouring countries from entering SA, operating a business, becoming a fellow worker, or having their children in the same classroom.

A substantial proportion of respondents were opposed to African foreigners enjoying the same access to health and educational services (40%), or access to housing (54%), although 47% perceived that they should be allowed to vote in elections. What follows are a number of quotations from several newspapers illustrating popular perceptions concerning the problem.

> 'In a study by SAMP (2001), it was shown that South Africans are tolerant toward citizens of European origin and North American immigrants but display distinctly negative reactions to foreigners from African countries. In the townships, they are accused of stealing women from their boyfriends and spreading HIV/AIDS'.

> 'In 2001 was reported that 30 refugees had been chased from their homes and businesses in Du Noon (a new housing project), which forced the local authority to house them temporarily in tents. The majority of homes vacated by the refugees (both formal and informal) were subsequently occupied by Du Noon locals'. (SAMP 2001),

> 'Foreigners even have to worry about the way they dress. An immigrant from the Ivory Coast was quoted as saying: "rolled up shirt sleeves or trousers that were long enough to hit your shoes and cover your socks were dead giveaways, singling him out as a foreigner. You even had to be careful about the way you shaved and you couldn't speak French in the streets"'.

In a subsequent article, Zonke Majodina from the SA Human Rights Commission discusses this phenomenon of "official xenophobia" in greater depth (SAMP, 2001). Notwithstanding the above report, xenophobia by local residents does appear to persist. A recent newspaper report provided details of physical attacks on foreigners, many of which resulted in death on the Cape Flats.

African foreigners face harassing treatment daily meted out by officials in contrast with the more positive treatment of non-African foreigners, According to (SAMP:2001), only a small proportion of South Africans actually come into contact with African foreigners,

as 80% of the respondents had little or no contact. The following headlines, taken from Cape Town newspapers, illustrate this point:

- Relentless refugee tide sweeping into SA;
- Illegal immigration alarming;
- Thousands of refugees make city their home;
- Africa's flood of misery pours into Cape Town;
- Africa floods into Cape Town;
- City haven for victims of Africa's wars and woes;
- Western Cape paying plenty to deport aliens (Boaden, 2002:4).

## 3.13    CHAPTER SUMMARY

South Africa has undoubtedly suffered from brain drain over the past 17 years, although establishing its extent and impact is far more difficult than the media would like to admit. After an in depth study and literature search, this chapter established an overview of international brain drain, which points to underlying factors that have turned the situation into a crisis. There are indicators that serve as examples to South Africa in dealing with the issue of brain drain, and it also contained measures to counter the phenomenon of brain drain by turning it into brain gain.

An in-depth review of these issues indicated an acute skills shortage, unemployment and poverty, whilst widening the gap of inequalities. The chapter also considered certain occupations, where critical a shortage of skills is experienced, and mechanisms used by certain countries that face the same problems as South Africa to ameliorate the negative impacts. It also dealt with past and present legislation that affected the issue of skills and alternative solutions to the challenge. Brain drain will not lessen anytime soon. If anything, it will escalate, judging from all available information that has been presented in this chapter.

It is not the right vehicle to be used to proliferate rare skills that are required for sustained increases in employment and economic activities. Internationalisation of workforces is here to stay and will continue to grow in strength and influence. The position that South Africa occupies on the continent implies that it will continue to attract both skilled and unskilled African immigrants and refugees. Many of them feel

more protected in South Africa than in their home countries for various reasons. South Africa represents a beacon of hope from political conflicts and under-development.

# CHAPTER FOUR

# PAST, PRESENT GOVERNMENT AND PRIVATE SECTOR INITIATIVE STRATEGY POLICIES TO DEAL WITH SKILLS SHORTAGES

## 4.1    INTRODUCTION

The genesis of South Africa's skills policy regime is intricately linked to the country's history, as Apartheid's legacy is still present in the labour market and efforts post-1994 to ameliorate iniquities caused by Bantu education have not yet yielded results (Reza, 1978).At the same time, the isolationist and geo-political and economic policies have been substantively transformed, opening doors for more firms'  competition and export-orientated activities that have led to reorganization and reinforcement of technological changes, which resulted in skills implications (Development Policy Research Unit (DPRU), 2000:72).

South Africa's first democratically elected government inherited a skewed socio-economic system, a divided society and an Apartheid legacy (Domingos, 2007:1). Apartheid manifested itself in the political doctrine of 'policy of separate development' as a consequence of such action. Literally, the principle implied 'mind your own business, and I will mind mine'. But, it was never designed to last for eternity. If it was, then at whose expense would it thrive, for both black and white coexist in the same geographical space? It did eventually disintegrate, and without a trace, but not without its casualties; one of which this study is positioned to redress, namely brain drain.

Altaman (2005:7) citing Makgetla (2004) identified a broad segment of the South Africa labour market that emerged from the Apartheid system, which includes:

- Skilled whites were reserved for heads of companies, both in the public and private sectors;
- A less skilled labour force was found at a lower level in the formal sector;
- The economy was defined by colonial labour relations among mining, domestic and agricultural workers;
- Unskilled workers in public sector industries;
- Informal agricultural works in former homelands and
- Unpaid production workers consisting mostly of women and children.

## 4.2    PAST POLICIES THAT IMPACTED ON THE ISSUE OF SKILLS DEVELOPMENT

The cornerstone of the Apartheid doctrine was discriminatory law. Litanies of legislation were passed to set the principle of separate development into operation. For this evil system to thrive, all government departments and private businesses were required to conceptualise, plan and implement internal institutional policies that gave effect to Apartheid rule.

While this is not the scope of this dissertation, it is worth mentioning owing to its contribution to inequalities and the present problem of skills shortages. The difference between Apartheid and imperialism in Africa is industrialization, which followed the discovery of gold and diamonds in South Africa. New immigrants poured into South Africa from Europe to make their fortunes. A few became millionaires, but most became members of the powerful new white labour force. The discoveries occurred at a time when Europeans had laid claims to great parts of the land in southern Africa. Many Africans were landless and in search of employment. Many features of South African life today are a result of historical policies such as carrying passbooks and job reservations.

Below are some of the previous Apartheid policies that existed in the Republic of South Africa. The *Manpower Training Act 56 of 1981* served to promote and regulate training of manpower and provide for the establishment of a national training board, including a manpower development fund to train unemployed persons, provide accreditation, the registration of regional training centres, private training centres and industry training centres and the imposition on certain employers of levies in aid of training and to provide for matters connected therewith.

The *Industrial Conciliation Act 1924* was passed as a form of Affirmative Action for whites against the cheaper labour of black people, following legislation that provided for job reservations. The *Native Building Workers Act* that prohibited blacks from doing skilled construction works in white urban areas. In 1937 the government employed 10 000 Europeans for work that had previously been done by natives. The *Bantu Education Act* 47 of 1953 that limited the content of school curricula for black school children, and further deprived black schools of required resources.

The Natives Land Act 27 of 1913 and the Group Areas Act of 1950 limited black social and economic activities in both rural and urban areas to designated reserves for blacks. The Natives Building Act 27 of 1951, the Apprenticeship Act 37 of 1944, the Industrial Conciliation Act 1924, the Mine and Works Act 1911, the Job Reservation Act of 1953, the Wage Act of 1925 and other Apartheid legislation acts included the following:

- Prohibition of Mixed Marriages Act 55 of 1949;
- Immorality Amendment Act 21 of 1950;
- Population Registration Act 30 of 1950;
- Group Areas and Segregation Act 41 of 1950;
- Suppression of Communism Act 44 of 1950;
- Bantu Building Workers Act 27 of 1951;
- Separate Representation of Voters Act 46 of 1951;
- Prevention of Illegal Squatting Act 52 of 1951;
- Homeland System Bantu Authorities Act 68 of 1951;
- Native Laws Amendment Act 54 of 1952;
- Native Pass Laws Act 67 of 1952;
- Native Labour Settlement of Disputes; act 48 of 1953
- Bantu Education Act 47 of 1953; and
- The Native Labour Regulation Act 15 of 1911.

All the above policies contributed to the current acute problem of skills shortage, yet the expectation for government to deliver is immense. Alexander (2006) holds that the Apartheid regime created many policies that impacted on poverty and inequality in South Africa along racial lines. Two of these are discussed here namely, inequality in the education and healthcare systems.

### 4.2.1 Inequality in education

The introduction of the Bantu Education Act 47 of 1953 led to a substantial reduction in government funding to the South African black Africans' institutions of learning. The National Party had the power to employ and train teachers as they saw fit. Black teachers' salaries in 1953 were low and resulted in a dramatic decrease in trainee

teachers. The Bantu education policy was primarily aimed to non-whites and black youth in particular, or the unskilled labour market, to ensure white monopoly and prosperity.

All of the above legislation was carefully orchestrated and implemented in the name of "God" by the powers that be. By controlling the media, they convinced the white electorate that the cause was "just", and these measures would greatly benefit blacks in South Africa. Black political organizations reacted with anger at the new laws. Thousands of parents vowed that they would rather have children roaming the streets than for them to be subjected to Bantu education.

According to Leibbrandtet al., (2010: 39) and Fiske and Ladd (2005), education under Apartheid was severely unjust in the way that people were treated. Race became the order-of-the-day and the majority of state resources were diverted to schools in white areas, while the vast majority of the population who lived in black areas were subjected to low quality education. Then, South Africa developed a high quality education system that only benefited the white minority.

Educational attainment has changed over time for each race, despite the efforts made by the post-1994 government, as educational inequality still exists; with whites and Indians now having equal years of schooling, while black sand coloureds still achieved 1.5 grades less on average in 2008 (Leibbrandtet al., 2010:39).
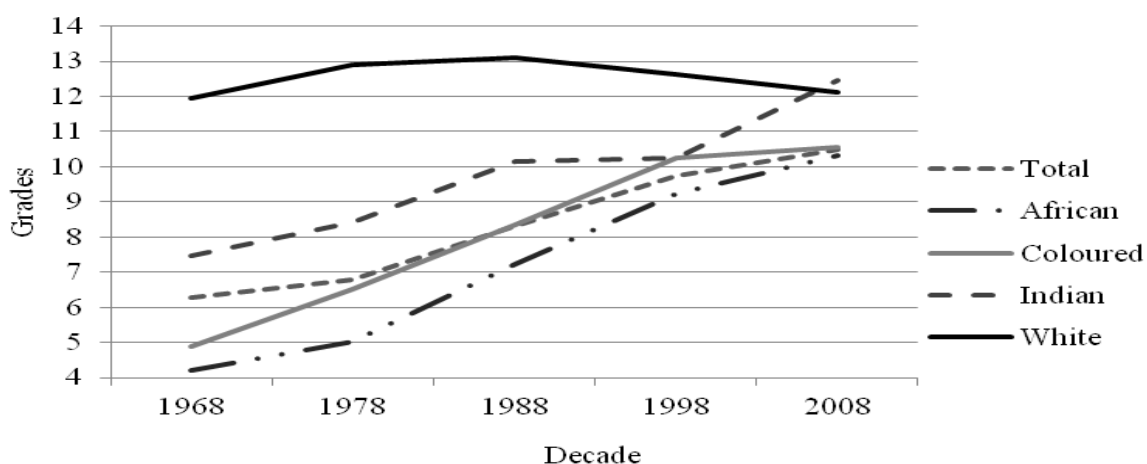


**Source:** NIDS (2008)

**Figure 4.1: Educational attainments of 21-30 year olds across cohorts**

The African National Congress (ANC) government that won South Africa's first fully democratic elections, which were held in 1994, came with a mandate to reverse racial policies that directly impacted existing unprecedented inequalities. The above graph illustrates that 18 years after democracy there is still a significant difference in the quality of education between formerly white schools and formerly black schools, while the majority of South African learners still receive poor quality education at schools.

Fiske and Ladd (2005) hold that discrepancies were common because education under Apartheid was biased towards the white minority. During Apartheid there were 15 distinct departments of education, and each served different racially distinct groups of students. Separate departments operated schools for each racial group that lived in the urban areas, while additional departments operated schools for Africans in each of the ten homelands.

Consequently, not only was the education system racially segregated, but they were also funded differently. According to Fiske and Ladd (2005), at the height of Apartheid, institutions that provided services to white students had more than ten times the funding amount per pupil than schools that served black students, and this occurred as late as 1994 and during the fading years of Apartheid.

After the national government had significantly increased spending on black students, the amount of money spent per pupil in white schools was more than two and half times more than that which was spent on black students in the urban townships and three-and a half times the spending on black sin the homelands. This is besides the privileges that they had enjoyed and the superiority of having better teachers and facilities, while the education of most blacks was poor (Breier & Erasmus, 2009; Fiske & Ladd, 2005).

The Bantu Education Act established a black education department in the department of Native Affairs that compiled a curriculum that suited blacks. The author of the legislation stated that it was aimed at preventing black South Africans from getting an education that would inspire them to climb the hierarchy and aspire to new positions within the society which normally they would not be permitted to hold. They were only permitted to receive information and skills that were designed to provide services to

their own people in the Bantustan, or that they could use for work purposes in labour jobs under whites.

### 4.2.2 Inequality in healthcare

The newly elected democratic government led by the ANC, inherited a health system that was divided in terms of accessibility and quality. The system considered cultural, racial, geographical and socio-economic classes. According to Myburgh, Solanki, Smith & Lalloo (2005), the legacy of Apartheid presented itself in inequalities in respect of health status and healthcare facilities, aligned with the race and socio-economic status of urban/rural residences.

The legacy of Apartheid presented inequalities regarding access to quality healthcare. The Centre for Health Policy (2007:1) holds that the Apartheid regime encouraged the growth of the private sector to reduce the demand for public health services through various measures, such as deregulating and promoting private medical schemes. This was merely to keep the poor majority out of world-class healthcare services, which were only obtainable from the private sector.

Despite attempts made by the ANC government to encourage fairness, particularly in the area of access to health care services, results continue to suggest that South Africa's healthcare system was two-fold in nature. Since 1994, divisions within the health sector have been between the rich and the poor, namely in terms of medical aid/cash and those without medical aid and the poor (Centre for Health Policy, 2007:1).

On the one hand, there is public health care, which is cheap and of a poor quality and conversely, there is private health care, which is unaffordable to the vast majority of the population, yet of a high quality, and this results in inequality for those who are at the receiving end and cannot afford the best services, which are only found in the private domain (Koep et al., 2010:46). Medical practitioners render their services in private hospitals, where they are remunerated better and where working conditions are better, which has created a shortage of staff in the public sector owing to better salaries and excellent working conditions that the private sector offers.

## 4.3    CURRENT POLICIES DESIGNED TO ENABLE SKILLS DEVELOPMENT

The labour landscape changed dramatically over the first decade of democratic governance. Historically, South Africa's formal work places were dominated by public sector, industrial, mining and agricultural employers. It has now changed owing to globalisation, liberalization of products and intensified domestic competition and regulation of the labour market, while the services sector in formal and informal businesses has been an important source of employment.  Brain drain and brain gain issues have also prevailed in the sports arena. Empirical evidence in this regard points to the number of African players in the best leagues in the world, and while many of them contribute to their countries, this is a salient example of brain gain in skills out-flow.

Skills shortage is an economic condition whereby demand for certain skills exceeds supply for a protracted period. Perhaps the most critical need among South African skills development institutions is to see an effective inter-departmental collaboration and more streamlined bureaucracy. We have seen how a skills development framework draws together the Department of Labour, Department of Education, Department of Trade and Industry and the Department of Home Affairs. What is lacking now is effective coordination between the DoL and the DoE, which is perhaps the most critical issue at this point.

At the same time, the isolationist and geo-political and economic policies have been substantively transformed in this democratic era, forcing firms to be competitive and export orientated, leading to reorganization and reinforcing technological change, resulting in skills implications (Development Policy Research Unit (DPRU), 2007:2). Like the government, South African organisations have an important role in addressing the skills problems that affects the country. It is the role of South African organisations to establish contacts in the form of partnerships with educational institutions to produce the type of skills that are required in the labour market. This cannot be achieved in isolation, but rather with the involvement of all stakeholders that are affected.

Nkosi (2008:38) citing the Department of Education (DoE, 2004), supports the debate by positing that it is important for organisations to go into partnership with training providers and relevant institutions to produce the quality of technical education that

isof paramount importance to boost the competitiveness in the world of business. These partnerships are important because they are the only way that learners will be prepared for what awaits them in the industry. Without the involvement of industries, learners will not receive the type of education that the labour market requires (Nkosi, 2008:38).

Whilst it is understood that a number of initiatives have been established by the government to help address the education and skills issue, many organisations have also focused on developing their people through learnership programmes and bursaries in order to build capable and highly skilled labour, which is required to capitalise on opportunities that are available for growth.

According to Hall and Sandelands (2009:217), one of South African organisations' roles is to conduct skills surveys within their own companies to establish amongst their employees the levels of education and the developmental potential, as well as to establish skills development plans that will challenge areas where skills need to be transformed. The money that organisations pay into the Skills Levy can be reclaimed once adequate training has been implemented.

The post 1994 policy environment showed a mismatch between labour demand and supply, as the situation of reintegration into the international economy demanded skills that were adequate to the methods of production and the world of work. This meant that available workers with adequate skills did not match the labour demand, and that the labour demand was not large enough to absorb the supply of labour.

Various innovative measures to enhance the skills base of the country were introduced since 1994, namely the South African Qualifications Authority Act (SAQA 58/1995), the Skills Development Act 1296/1997 and the Further Education and Training Act 9198/1998. The White Paper for the Transformation of Higher Education, the Green Paper on Skills Development Strategy for Growth of the Economy and Employment in South Africa, the Green Paper for Post-School Education and Training 2012,and the Affirmative Action policy, which the ANC applied to level the playing fields, were all introduced to ensure representativity to reverse discrimination. In the new South Africa Affirmative Action is a sensitive issue, not because it is wrong, but due to its unintended effects. It was the mostly consulted piece of legislation that resulted in the

draft of the Public Services Act, the Employment Equity Act, the Skills Development Act and the Skills Development Levy Act. All of these were directed to create an environment for the redistribution of political and economic power, social and cultural cohesion. The ANC cannot continually fight against social injustices, and after it was elected to power it turned around and did the same thing that was previously believed to be atrocious. The logical meaning of Affirmative Action is that it is acceptable for the ANC to do certain things, but wrong for others to do them.

According to the Republic of South Africa (1997:7), the Basic Conditions of Employment Act was amended in 2002 to give effect to, and to regulate the right to fair labour practices, which was conferred by section 23 (1) of the Act. Affirmative Action is cited constantly as one of the factors that drove the skilled people away. The Skills Development Act of 1999 successfully established a national regulatory framework, which comprised the National Skills Authority and 25 SETAs, all being linked to training programmes at a national level, including those at a sectorial level. The importance of this relationship between micro firm level sectorial skills plans and the national skills plans is perhaps one of the most undervalued aspects of the SETAs, while the Skills Development Levies Act of 1999 sought to correct this by creating a national levy system, which was applicable to all enterprises based on taxing one percent of a company's payroll.

The National Skills Development Strategy (NSDS) report (2007:3) holds that in order for government to implement and achieve its objectives, depended on two main elements, namely the Sector Education and Training Authorities (SETAs) and the National Skills Fund (NSF),as well as other agents such as the National Productivity Institute (NPI), which strives to improve the productivity capacity of South Africans through consultation and implementation of a progressive education, training and employment regime that supports government, business and labour,facilitating young peoples' access to quality skills development programmes that guarantee sustainable full time employment, even before they graduate.

The NSDS' objectives and programmes focus on four issues, one of which is to assist the youth to participate in integrated learning and work-based programmes to obtain the necessary skills tocompete and enter the labour market, or to become self-employed. The following text considers important aspects of this legislation in detail.

Act No. 55 of 1998 of the Parliament of the Republic of South Africa, also known as the Employment Equity Act (EEA). Section 2 of the Act describes its purpose as being to achieve equality in the workplace by:

- Promoting fair and just treatment and equal opportunities in employment via the elimination of unjust practice of discrimination and
- Putting in place Affirmative Action mechanisms to redress the disadvantages in the job market and work experienced by designated groups in order to ensure that they are represented in an equitable manner in all occupations (Alexander, 2006:4).

In the case of South Africa, the ANC government established initiatives and strategies to help to address education and skills challenges in the country, but it lacks thorough implementation. One of the ways in which the South African Government elected to address the skills shortage problems has been by taking on a collaborative role between industry, educational institutions and institutions whose work is directly or indirectly affected by skills shortages, and this response came in a variety of forms such as the formation of the Skills Development Act of 1998.

The overall aim of the Skills Development Act is to improve the skills of South Africa's work force (SDA No. 97 of 1998). The needs of employers and communities must dictate which skills should be developed. The Act further aimed to provide:

- The best quality training and to make provision for the standardisation of training;
- learnership that leads to recognized qualifications;
- A set of guidelines and structures to determine and implement national sector and workplace strategic skills development and
- Provision for employees starting their first job (new entrants) for those already in the workplace, for retrenched employees, and for those who find it difficult to find a job (disabled).

The Sector Education and Training Authority (SETA) is another institution that was established in terms of the Skills Development Act. The central aim of SETA is to encourage South African employers to train their employees. They can recover their

expenditure by claiming back from the Skills Development Levy (SDL) through grants for SETAs, the main objective of which is to address skills shortages in various sectors, where each SETA has a management board that decides how such skills should be handled (NACI&DST, 2003).

There are also private companies that work towards improving the skills shortage in South Africa within the construction and engineering sectors, particularly companies that face severe skills shortages, such as artisans and supervisors. According to Hall and Sandelands (2009:23), there are often high expectations from local employers whenever there are major projects. But skills levels tend to be low, limiting local employers in terms of hiring locals. To minimize the problem of the skills shortage, Murray and Roberts took the initiative to develop skills such as mathematics, sponsor bursary payments, provide job experiences and training programmes and also established learnership programmes.

### 4.3.1 Skills Development Act (SDA) of 1998

The Skills Development Act(1998) was promulgated to provide support to the national skills development plans and workplace strategies to enhance and develop the South African workforce skills; to integrate these strategies within the National Qualifications Framework (NQF), contemplated in the South African Qualifications Authority Act (SAQA) (1995); provide apprenticeships that lead to acknowledged occupational qualifications; provide the monetary support for the skills development by means of a skills levy-grant scheme and a National Skills Fund; supply and regulate employment services and provide for matters connected therewith.

### 4.3.2 Skills Development Levies Act (SDLA) of 1999

This Act makes provision for the payment of a one percent levy by employers (private sector) of the total company payroll. For the duration of the first five years, companies with an annual turnover of R 250 000 were required to register for Pay as You Earn (PAYE) and to pay the levy. However, in 2005 the former Minister of Finance, Trevor Manuel, increased this threshold to R500 000.The Act also stipulates how the funds will be utilised, which is for the training of workplace employees. It is not clear if the same fund can be accessed to train the unemployed.

### 4.3.3　Nationals Skills Fund (NSF)

The National Skills Fund was established after enacting the Skills Development Act of 1999. The main goal of the NSF is to financially support projects identified in the NSDS as national priorities, as well as other projects connected to the achievements of the Skills Development Act, as determined by the Director General of Labour. The fund is administered by the Department of Labour and guided by the National Skills Authorities and Skills Levy Income, while other sources such as parliament donations can also fund skills development initiatives.

SETAs would have to be structured to align their functions with the Accelerated Shared Growth Initiative for South Africa (ASGISA).A policy response on such an issue would be political rather than economic and develop strategies that would train, retain and attract highly skilled human resources in the country, whilst temporarily or permanently repatriating those that have already left (du Toit, 2005:13).

### 4.3.4　National Skills Development Strategy

The SDA makes provision for the drafting of an NSDS, which will assess overall progress in meeting its objectives. The NSDS provides a broader national framework within which skills development should take place - cutting across SETAs and other institutional structures such as the National Skills Fund.

### 4.3.5　SETA

The Sector Education and Training Authorities (SETAs), were established in March 2000 in terms of the SDA. The authority is responsible for the payment of training levies that are payable by all employers who are registered with the SETA. The SETA ensures that the skills requirements of specific sectors are identified and that adequate and appropriate skills are made readily available. SETA contributes to the improvement of sector skills through achieving a more favourable balance between demand and supply, ensuring that education and training is provided, and that people with disabilities are taken into consideration.

The primary responsibilities of the SETAs are to develop sector skills plans (SSPs), approve, register, promote learnership, and distribute mandatory grants to employers after receipt and approval of Workplace Skills Plans (WSPLs) and Annual Training

Reports (ATRs). They are also responsible for quality assurance, provision of training and evaluation in sectors via their Education and Training Quality Assurance (ETQAs) bodies.

Skills development is funded through the skills development levies paid by the private sector employers as expected by the South Africa Revenue Service (SARS). 80% of it is transferred to SETAs while the remaining 20% goes to the NSF. The SETAs are expected to spend at least 90% of the earnings on skills development activities, while the national treasury, via the budget allocation, provides funds for public SETAs (PSETA).

### 4.3.6    AsgiSA and JipSA

AsgiSA was established with the aim of halving poverty and unemployment by 2014, and to promote an annual growth of at least 4.5% from 2005 to 2009, rising to at least 6% from 2010 to 2014. It was also conceived to overcome the salient 'six binding constraints' upon faster growth, which include a shortage of required skills, a volatile and over-valued rand, infrastructure backlogs, a lack of competition in various sectors, a heavy regulatory burden on small business, and deficiency in state capacity and leadership.

The establishment of the Joint Initiative for Priority Skills Acquisition (JipSA) complemented AsgiSA and was mandated to identify the most urgent skills required by the economy to find a quick fix and effective solutions to the skills shortage. Its activities include coordination of special training programmes, bringing back those that retired, encouraging South Africans who work abroad to return, drawing in immigrants and mentoring trainees to fast track their development.

### 4.4    ROLE OF UNIVERSITIES AND FURTHER EDUCATION TRAINING COLLEGES IN ADDRESSING SKILLS SHORTAGES

In South Africa, Further Education and Training (FET) colleges include an extensive range of providers, namely colleges, secondary schools, private providers, NGOs, community organisations and employers. Former technical colleges are the main constituency of the public Further Education and Training sector, although Colleges of Education, Manpower and Skills centres and a number of former community colleges

were also merged during the restructuring process, with technical colleges forming the new FET colleges. Further Education and Training (FET) Colleges have an important and critical role in addressing the social and economic challenges that South Africa faces. These institutions are major contributors to the reduction of intermediate skills shortages in the medium to long term, as well as the foundation for increased levels of economic growth and wealth creation, which is good for the country's steady reduction of unemployment and for the alleviation of poverty.

The importance of further education and training (FET) colleges in responding to skills development has been well documented. The government has emphasized the significance of the sector in providing the intermediate skills that are required in the country. Naledi Pandor, then Minister of Education, declared that it was a central instrument to the government's agenda to develop skills, and that it was not a 'poor peoples' university', or a place for other peoples' children, but rather an institution where delivery of skills was the imperative (Akoojee & McGrath, 2011:199).

Nkosi (2008:2) holds that post-1994, FET institutions were seen as promoters of Apartheid policies, where white colleges were more wealthy and prosperous, and black colleges in the rural areas were less developed and under-resourced. More than a decade later, Akoojee (2008:298), Nkosi (2008:2) and Daniels (2007:23) hold that FET colleges have been transformed and have a role to provide the intermediate level skills necessary to meet the country's national development challenges, as well as to reach masses of illiterate, semi-literate and unskilled people in diverse communities across South Africa.

Daniels (2007:23) and Akoojee (2008:301) hold that these institutions also have a role in equipping the nation, in particular those who come from previously disadvantaged backgrounds, to acquire the necessary skills that enable them to participate in the country's social development and economic growth.  Daniels (2007:23) holds that besides the above mentioned, FET colleges also have a central role in decentralizing learning programmes that are important to the industries and for self-employed, as they are the frontrunners in the field of vocational teaching, catering for out-of-school youth and adults.

Daniels (2007:23) holds that Further Education and Training has gained strength since government merged the existing 152 technical colleges to form 50 'multisite-campus' FET colleges in 2002/3. Since then, new programmes of study were introduced from 2007, which support the skills development policies aimed at addressing priority skills, which the economy demands, while the National Certificate (vocational) is geared to give students both theoretical and practical experience in specific fields. The production of more quality artisans became part of their core objectives, as well as addressing the skills shortage and the mismatches of skills that exist, and to help young and less skilled workers to access jobs.

Universities have a central role in educating, equipping and preparing the country's workforce for the labour market. According to du Pré (2009:14), universities are academic institutions where research is conducted and teaching and learning is offered within an organised cadre of contact between lecturer and student, supported by a network of external academic partners to create, develop and transmit new knowledge.

From this statement, one understands that universities have the capacity to empower people with skills and develop a society that is capable of tackling the issues that confront them. In support of all the above statements, Iwu and Xesha (2011:87) posit that tertiary institutions in South Africa are seen as centres for skills acquisition and learning and development that supports government's duty to advance the socio-economic development of the nation through the enhancement of its citizens' skills.

Co and Mitchell (2005:3) hold that South Africa does not only have a shortage of skilled professionals to fill vacant positions, but also lacks entrepreneurs to create jobs for the masses under the critical conditions of poverty and unemployment. Consequently, the above authors hold that higher education institutions can also have a positive role in creating entrepreneurial aspiration among the youth by instilling in them a clear mind-set and an understanding of the rewards and risks, teaching opportunities that seek and recognise skills, abilities and also creating new corporations.

Walker (2009:3) and Badat (2009:5) believe that educational institutions have a considerable role in addressing the social and economic issues that face the country and to engage with the community to address issues such as poverty, employment

and the disproportion of inequality. Botman (2011:3) holds that higher institutions in South Africa can be used to redress past inequalities and imbalances, as well as become involved in activities that will ensure service delivery to the poorest of the poor in society.

## 4.5    HOW EFFECTIVE HAS SETA, ASGISA AND JIPSA BEEN IN MEETING THEIR OBJECTIVES?

### 4.5.1    Sector Education and Training Authorities (Seta)

The Sector Education and Training Authorities (SETA), established in March 2000 in terms of the Skills Development Act, has the authority to disburse training levies that are payable by all employers who are registered with the SETA. The sector also ensures that the skill requirements of specific sectors are identified and that adequate and appropriate skill sets are readily available. SETA contributes to improved sector skills through achieving a more favourable balance between demand and supply, ensuring that education and training is provided, and that people with disabilities are taken into consideration.

The Institute for the National Development of Learnerships, Employment Skills and Labour Assessment (INDLELA) is responsible for the assessment of artisans who are linked to the NSDS objective, namely to create awareness and to promote and accelerate the quality of training for all in the workplace. In March 2000 the Ministry of Labour established about 25 SETAs under the Skills Development Act, no 97 of 1998, but these SETAs were later downsized to a total of 23 after a review of their landscape to make them more effective in meeting their obligations.

Since its establishment, SETA has been expected to perform according to its mandate, but the sector has received criticism from the media and organizations, claiming that the sector has been under-performing ever since, and lacks direction. The assumption is supported by the American Society for Training and Development (2011) and Grawitzky (2007), who posit that SETA came under a criticism from the media and organizations, including government, and that the sector has been weighed down by corruption, uneven governance, poor performance, administration and financial inefficiencies, in just one month following its establishment.

The assumption above is supported by Daniels (2007:2) and Grawitzky (2007:17), who hold that the Sector for Education and Training Authorities found itself swamped with levy payments and expectations of immediate delivery after just one month of being officially constituted. In addition, the authors hold that administratively, a majority of SETAs did not have the appropriate systems and procedures in place to deal with their responsibilities and core functions, as stipulated in the Skills Development Act (Parker & Walters, 2008:73).

The CDE (2007:28) concluded in their research that the SETA's role is complex and characterised by mixed success, and while certain SETAs managed to meet expectations through their own creativity and innovation, other SETAs have failed, and are not in a position to either administer learnership programmes or monitor the performance of learners during the skills development phase.

Media Monitor (2011) and Sabinet Law (2010) indicate that the Minister of Higher Education, Dr Blade Nzimande, expressed concern and signs of unhappiness regarding the SETA's underperformance when addressing business people at Gold Reef City during a road show. The Minister believes that SETA is not doing enough for the youth and is failing to ensure a smooth transition from tertiary education to the labour market. The Minister claimed that the SETA had been given a budget of R8 billion and more than 80 percent of the revenue was spent on short courses, when it should have been spent on professional education where it is needed.

Similar debates emerged from Marock, Harrison-Train, Soobrayan & Gunthorpe (2008:11) who primarily acknowledged the significant progress that the SETA and the Skills Development system had made since 2000, but the same authors hold that significant challenges remain ahead in respect of the level of development of the SETA. According to Marock et al. (2008:11), numerous complexities persist in respect of implementation; effectiveness and efficiency; shortcomings in the functioning of the training market; the under-developed capacity and functioning of the monitoring and evaluation systems and the lack of effective management information systems. Hence the effectiveness of quality assurance mechanisms in the system all combines to suggest that the SETAs and the Skills Development system are still at a critical stage of institutionalisation.

The current statement supports all of the above, namely that the SETA is a source of great concern and that much should be done to improve its efficiency and effectiveness (Sabinet Law, 2010). As a result, Blade Nzimande announced a new SETA landscape to address the many challenges that the SETA faces, amongst others are diffused focus and multiple objectives; uneven governance management; administrative and financial debacles; inefficiencies in planning and service delivery across the SETAs; difficulties in addressing cross-sectorial skills development and training requirements; negative public perceptions, including lack of clarity on the role of SETAs; eliminating corruption from the SETA system and aligning SETAs with the public university and college system.

### 4.5.2   Share Growth Initiative of South Africa (AsgiSA)

AsgiSA was established in 2006 by the national government to increase GDP and to halve poverty and unemployment by 2014. It identified six priority areas that should be addressed in a structured process to realize the objectives:

- Macroeconomic issues related to national economic fundamentals; investment in infrastructure programmes; industrial and sector investment strategies; skills and education development and
- Economic interventions; promote good governance and contribute to building state capacity to deliver on effective public administration issues.

In implementing AsgiSA, the need is to ensure a sustainable growth rate at 6% and to identify constraints on the part of achieving objectives, which are listed below:

- the volatility and level of the currency;
- the cost efficiency and capacity of the national logistic system;
- shortage of sustainable skilled labour amplified by the cost effects on labour of Apartheid spatial patterns;
- barriers to entry limits competition and limited new investment opportunities;
- regulatory environment and the burden on small and medium business;
- Deficiencies in state organizational capacity and leadership.

These constraints were countered with the follow interventions and they did not only amount to a shift in economic policy, but also to a comprehensive initiative to achieve all the set objectives:

- Macroeconomic issues;
- infrastructure programmes;
- sector investment strategies;
- skills and education initiatives;
- second economy interventions and
- Public admission issues.

Most falls within the scope of the study, as education and skills development is an impediment for both private investment programs and public infrastructure owing to skills shortages amongst labourers such as engineers and scientists, artisans, IT technicians and project managers. The key measures to address skills challenges in the educational sphere are discussed below.

The mathematics and science (Dinaledi) programme for 529 high schools was introduced in order to double mathematics and science graduates to 50 000 by 2008. This was regarded as a significant upgrading of further education and training colleges, in addition to the adult basic education training programmes that were based on a model that was developed in Cuba and New Zealand.

Another new institution is the Joint Initiative for Priority Skills Acquisition JipSA. JipSA's mandate includes skills transfers to new graduates and compiling a database of retired experts, led by a committee of key ministries, business leaders, trade unionists and education and training providers or experts. The task is to identify urgent skills that are required plus fast and effective solutions. This may include programmes specially designed to train personnel, bringing retirees back, South Africans and Africans working outside the continent and attracting new immigrants, where necessary. It may also include mentoring overseas placements of trainees to fast track their development (Former deputy president, Phumzile Mlambo-Ngcuka, 6 February 2006, media briefing on AsgiSA; AsgiSA, 2007:5).

### 4.5.3    Origin of JipSA

The Joint Initiative for Priority Skills Acquisition is a result of the adoption of the Accelerated and Shared Growth Initiative, AsgiSA, which targeted reducing poverty and putting unemployment below 15% between 2004 and 2014 via fast rising GDP growth to 6% in 2010.

At the beginning of 2006, the then Deputy President, Phumzile Mlambo Ngcuka, launched AsgiSA; identifying 6 elements causing constraints and difficulties in achieving a goal of an accelerated shared growth from the 6 constraints, priority was given to the shortage of skills, requiring a dedicated initiative. As a result, in March of 2006 the first phase of JipSA began with the participation of all major stakeholders (AsgiSA, 2007:2).

### 4.5.4    Rationale for JipSA

Although the country faces high unemployment, there is a shortage of skills at all levels and all sorts from technicians and operator to artisans.JipSA'sfirst task was to elevate and place the issue of skills into the national agenda. While the national government responsibility is to design and implement longer-term initiatives and policy, given the importance of AsgiSA, there was an urgency to put some short-term to medium interventions in place that in certain circumstances required close cooperation with stakeholders external to the government in implementing some projects outside of is domain(JipSA,2008:7). This approach was supported both in and out of government.

### 4.5.5    Modality of JipSA

Anumber of limited priority skills thought to be essential for the economic growth have been targeted (JipSA, 2011:7). JipSA's interventions and approaches are based on the results or findings of quality research and analyses. It operates on the basis of the voluntary "self-binding" of autonomous project owners. In other words, each department in the government, unions or private associations set their targets and make commitments to achieve certain goals. The practical and moral support of other stakeholders is a pre-condition for success.

The dedication, commitment and clear vision of the leadership was an instrumental element for success and as a manner to elevate the discussion of the skills issue on

the national agenda, highlighting JipSA interventions, such as:   intermediate engineering skills targeting 1 000 candidates annually; with a significant injection of resources, commitment to reach 500 by 2010; make sure that a 33% increment in 4 years, in addition to increases since 2000 and also to implement strategies to draw high level quality engineers for a network of industries(JipSA,2011:9).

**Artisan and technical skills:**

- In 2008 Parliament passed the Skills Development Amendment;
- In December 2007 the new artisan training routes were gazetted for public comment;
- In 2007/08 up to 18 000 were targeted and 20 000 in 2008/09, this was the target for artisan output;
- Via the Business Leadership SA CEOs,a "Commitment was made to increase skills;
- Technical Business Skills Partnership was initiated by business.

**City and regional planning skills:**

- Identified the professional and work environments as main focus areas.

**Management and planning skills:**

- Health management and planning, several discussions of research reports and findings; DoH to continue to drive this;
- Education management and planning, some further engagements between the DOE and JipSA in this field and
- In relation to these two fields, JipSA could make relatively little contribution and the departments continue to drive these activities.

**Mathematics, Science and ICT competence in public schooling:**

- Business support for schools and the Dinaledi programme has made a significant contribution and is intended to continue.

**AsgiSA Sectorial projects:**

- Business process outsourcing (BPO);
- Significant progress was made with the DoL Monyetla initiative, contributing to a significant rise in training supported by NSF and
- In general, skills programmes are supporting BPO.

**Tourism:**

- JipSA supported the DEAT in developing its strategy to improve tourism training in SA's ICT sector and
- JipSA conducted research on skills needed in ICT, but welcomed the establishment of the E-Skills Council, which now has the responsibility for driving the ICT skills strategy.

**Biofuel:**

- Key opportunity is in support of small scale and new farmers supplying the Biofuel sector through training and extension officers—shortage of 5 000 extension offices and
- JipSA will continue to support the DoA with policy research and strategy development in this field, where appropriate.

**Review of the National Learner Database:**

- A study was conducted to establish the feasibility of a national skills and education database;
- Work placement programme;
- More than 20 000 offers have been received and over 14 000 graduates have been placed in SA and more than 700 abroad;
- Key constraints are to provide support structures for local and international placements and
- 118 retired professionals placed at 101 municipalities by the Siyenza Manje project and 50 young professionals have been deployed as understudies and787 applications have been received, which it is processing.

**The way forward:**

In November 2007, an assessment by the Bosberaad decided to support Phase 2—a 2nd 18 month compromise and commitment until March 2009. The Business Trust renewed its commitment to fund the JipSA Secretariat to enable them to continue the main projects, except for those projects that are completed, or where JipSA's impact was minimal. Additional key areas are most likely to be agricultural training and extension services. The ongoing support of leaders in government, business labour, the education and training sector is highly valued and remains a key for success.

In its report, AsgiSA (2007:2) holds that former Deputy President, Phumzile Mlambo-Ngcuka, launched the Accelerated and Shared Growth Initiative for South Africa in 2006 as a result of discussions with various stakeholders. Government identified six "binding constraints that prevented the country from economic growth and that needed to be dealt with so that South Africa could achieve the desired target of halving unemployment and poverty between 2004 and 2014". This ambition could be achieved if the country's economy grew at an average rate of at least 4.5% in the period from 2004 to 2009, and by an average of 6% in the period 2010 to 2014. These binding constraints were identified as the following:

- Lack of government's capacity;
- The instability of the currency; low levels of investment in infrastructure and infrastructure services;
- Shortages of suitably skilled graduates, technicians and artisans;
- Inadequately competitive industrial and services sectors and weak sector strategies and
- Inequality and marginalisation, resulting in many economically marginalised people being unable to contribute to and/or share in the benefits of growth and development (the Second Economy).

In order to address the identified constraints, the Joint Initiative on Priority Skills Acquisition was formed. According to JipSA (2007:7), the Joint Initiative on Priority Skills Acquisition came into existence two years after the establishment of AsgiSA.JipSA was established and launched by Cabinet to support AsgiSA objectives, whose central focus was to cut down the unemployment rate by 2014 from 30% to

15%, and in line with this, reduce poverty from one-third to one-sixth of the population by 2014, as well asto raise the annual GDP growth rate from an average of 3% to 4, 5% per year for the period 2005 to 2009, and to 6% for the period 2010 to 2014.

The Centre for Development and Enterprise (2007:55) holds that JipSA is a multi-stakeholder entity that has joint ventures with the private and public sectors, including institutions of higher learning, research institutions and civil society, to fast track the provision of priority skills needed to support the accelerated and shared growth initiative. JipSA was formed with the following mandate, outlined below.

- Be the leading force in the implementation of a joint initiative between government, business and workers associations to accelerate the provision of priority skills to meet AsgiSA's objectives;
- Provide momentum and constant support to the implementation of AsgiSA;
- Identify and prioritise key skills development and design an adequate human resource development (HRD) strategy to address these in the short to medium term;
- Mobilise senior leadership in a more co-ordinated and targeted way, be it in government, organised labour, business and institutions of higher learning, science and technology, to address national priorities;
- Promote and strengthen the education and training system, providing it with greater relevance and responsiveness and in return making the graduates employable;
- Establishing the foundations for more co-ordinated and effective HRD strategies;
- Report to the AsgiSA task team and cabinet on improvement and progress made towards set objectives and
- Identify constraints and obstacles within the system of education and training that block the way to achieve JipSA's goals and lead an effective programme to share communication and spread JipSA's objectives and consult with stakeholders.

From the above duties, one can clearly understand that JipSA is not a delivery structure, but rather a short-term intervention structure, which is designed to push

people along, where required. The latter is supported by the CDE (2007:55), positing that JipSA is not a delivery structure or a new institution created as an architect for skills delivery; neither is it an institution that came to rectify and repair the whole education and training system; rather, it is a structure that is concerned with priority skills, of which the immediate availability in large numbers is deemed crucial for faster growth. The CDE (2007:55) holds that JipSA was created to identify and address immediate blockages in the skills pipeline.

The question should not be whether JipSA has produced enough artisans or engineers; conversely, it should be whether it has adequately engaged with institutions to ensure that targets are met. However, should that be the appropriate question, then it is tricky to determine whether JipSA has succeeded or not, simply because there are too many relevant issues to take into consideration (CDE, 2007:57). Bhorat added that for issues such as skills development, an 18-month mandate is a short period, but rounding off he believes that JipSA was successful (CDE, 2007:58).

Joint Initiative on Priority Skills Acquisition gave a similar statement. In their 2008 report, JipSA reported that this structure managed to overcome the challenge that was placed ahead of them in its nine months in mandate and that significant progress was made in defining challenges, aligning stakeholders and identifying suitable resources to respond to the critical skills shortage that faces the country. All this was necessary for success of JipSA, although not in isolation of the budget that was allocated by the government, but on the strength of partnerships among all stakeholders that come from different levels of society.
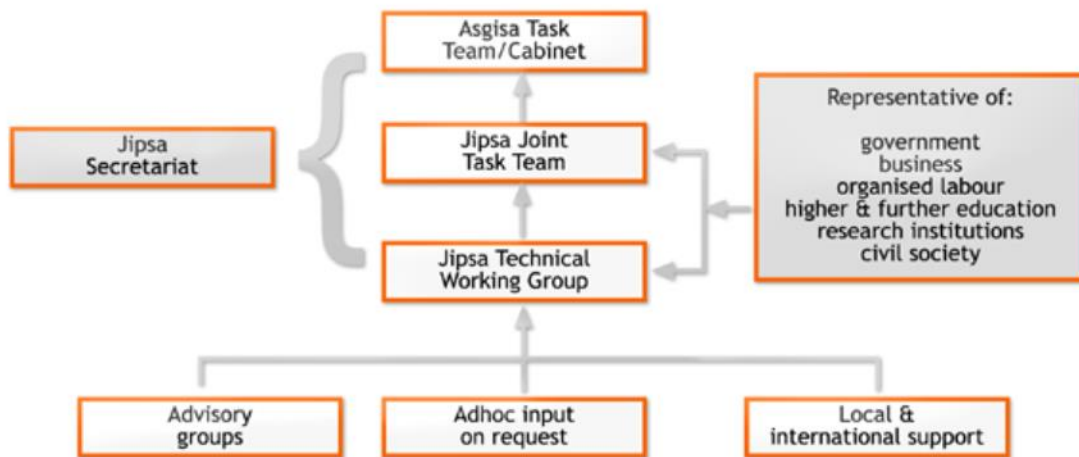
**Source:** 2008 JipSA

**Figure 4.2: The Joint Initiative Programme on Skills Acquisition structure**

At the end of its first mandate, which was 18 months, JipSA was able to report that immense advancements had been made in areas of engineering and artisan development, but more time was needed before complete results or advancements became effective. TheCDE (2007:56) and JipSA (2007) hold that JipSA made significant progress and, as a result, has gained and retained the confidence of government and all stakeholders at the highest levels to continue with the same mandate in order to remain an important vehicle to drive skills and education programmes for a few more years.

The CDE (2007:59) and JipSA (2007) posit that within a short period of time, JipSA made enormous progress in respect of the following:

- JipSA has created a platform to elevate the skills debate into the national agenda;
- JipSA created a culture of commitment among all social partners who have worked together to find joint solutions for skills shortages and
- JipSA has given rise to a model of identifying and unblocking impediments towards the acquisition of scarce skills.

Some of these interventions have resulted in amendments to legislation, which previously impacted on skills acquisition negatively. There has also been an increase

in funding in a number of priority areas. The CDE (2007:58) holds that successful results of this intervention are seen as businesses coming together to form a business skills partnership. According to the CDE (2007:59), JipSA's legacy would be to have identified the blockages, an analysis of why they existed and suggestions for government to change the public sector.

Although it was difficult to measure JipSA's performance, progress could be seen in the fact that the DoE and DoL had done work on the scarce skills and that many others in the bureaucracy were working on the issues. A concrete example existed in the DoE, which offered the University of Cape Town money to train more engineers, based on a business plan that JipSA produced.

## 4.6    CIVIL SOCIETY ORGANIZATIONS' INITIATIVES FOCUSING ON STEMMING THE BRAIN DRAIN PHENOMENON IN SOUTH AFRICA

### 4.6.1    South Africa network of skilled abroad (SANSA)

According to **SANSA (2001) (**South Africa network of skilled abroad), brain drain as a phenomenon "is causing strain on the motherland, and the time has come put in place policies and programmes to reverse the negative and devastating effects of the brain drain ".  Instead of blaming those professionals who left the continent causing the shortage of skills,**SANSA** is of the opinion that these highly skilled professional South Africans based overseas should be seen as a potential asset," as noted by Kaplan and Meyer.(1999). In its report, **SANSA** emphasised that in order for the networks to succeed, they depend on the commitment of expatriates.

A balanced view must be taken when assessing the impact of the movement of skilled professionals in and out of South Africa. Significant for the brain gain in South Africa is the number of skilled professional immigrants, namely 73.3% of who were granted permanent residence in 2003 following their arrival in South Africa. This implies that many of the professionals in the country who held temporary work visas chose to apply for permanent residency later (Lundy, 2006:3-7).

The University of Cape Town, the National Research Foundation (NRF) and the South African Government are attempting to stem the brain drain by using the skills of South

Africans abroad. **SANSA** has been set up and is calling on South African expatriates to make their skills available. **SANSA** is an example of a project, which is aimed at making use of the intellectual Diaspora of its HSPs abroad, and the thinking behind it should be seen as the countries of origin simply tapping into their available human assets (Kaplan and Meyer, 1999). The Department of Science and Technology has formally endorsed the programme, while it also has strong support from universities, science councils and from prominent South Africans, both in South Africa and abroad.

**SANSA** has now gathered the qualifications, professional experiences and positions of almost 1 800 members whose motivation to contribute is high. They envisage helping local graduates to study abroad, participate in training or research with South Africans, transferring technology information and research results, and facilitating business contacts and so on.

### 4.6.2    Home-coming revolution

Fourie (2006:5253) posits that the homecoming revolution has grown into a multi-pronged campaign that not only offers a number of inspiring reasons to come home, but also assists in the details of arranging relocations. The campaign started out as an informal communication project that was operated by a small group of 'home comers" to encourage South Africans to return to South Africa.

It is the brain child of Angel Jones and Nina Morris, who in early 2003 began spreading the following messages to South Africans who were scattered across the globe "Don't wait to get better, return home and help make it great".  Its objective is to fight the global war of human capital. The initiative gained momentum in 2004 when First National Bank came on board as its sponsor and partnered with other top companies that assist people who have decided to come home. This is in the form of helping home comers search for a job, homes, schools, and to sort out legal and financial matters (Fourie, 2006:53).

### 4.7    PRIVATE SECTOR INITIATIVES TO COUNTER BRAIN DRAIN IN SOUTH AFRICA

Africa is not alone with regard to skill shortages. Numerous skills that are in demand in South Africa are in short supply globally. "This has led to a global war for talent.

Furthermore, growing economies such as China exacerbates skill shortages. These economies have an insatiable appetite for skills. While the big-four accounting firms in South Africa reported net shortages of about 700 trainees this year, in 2006 it was estimated that China faced a shortage of 300 000 accountants".

South Africa is a major foreign migrant receiving country in the region. Visitors from other countries to the region rose significantly with the collapse of Apartheid, from 500, 000 in 1990 to 5 million at the present time. President Mbeki claimed in January 2004 that there were 7 million 'illegal immigrants' and 3 million Zimbabweans in South Africa, figures without any basis in fact. The primary reason for South African census discrepancies is South Africa's large undocumented migrant population and the reluctance of foreign Africans to disclose their origins to the authorities (Black, Crush, Peberdy, Ammassari, Hilker, Mouilesseaux, Pooley and Rajkotia, 2006:115).

Globalisation and the shift to a service economy have made the movement of skilled people from one country to another accessible and easy (McDonald& Crush, 2002: 1). These same authors continue by expressing that globalisation will increase the skills migration over the next decades. It is necessary to establish certain policies to address these movements, including containing, attracting and retaining training. IfihlileTraining Academy, which was formed in 2005, Aircon Corporation (PTY) and Embrace brand compressors provide skills to individuals who are looking to enter or seek a job in the heating-electrical, ventilation, air conditioning, and construction industry (HVAC), which started with 120 in 2005 and 58 managed to complete the full course in 2007. A total of 274 were registered in the same year, while 150 managed to complete the course (Gauteng Treasury, 2009:7).

Hall and Sandelands (2009:217) citing Murray and Roberts (2009:23), hold that like many other companies, Murray and Roberts, one of the leading companies in the construction industry in South Africa and a responsible employer, has taken the initiative to address the shortage of skills through comprehensive collaboration with various institutions such as universities, colleges and schools that promote the development of skills in mathematics. The company has also set aside bursaries for students who are taking courses and subjects that are most needed, or where there is a scarcity of a skilled labour force, including learnership programmes.

Hall and Sandelands (2009:217) posit that learnership programmes are aimed at those on the job, as well as graduates who enter the industry. Graduates who complete their studies are immediately placed through learnership programmes, where a combination of theory and practice are in place, focusing directly on learning outcomes, ensuring that these graduates receive enough exposure to obtain the skills that are required by the company. At Murray and Roberts learnership programmes are not only aimed at young and energetic people, as people from 16-60 years of age are also encouraged to join.

According to the Skills Portal (2007), Mweb, the leading Internet service provider in South Africa, is another company that has stepped into respond to the skills shortage. The CEO of the company, Rudi Jansen, holds that their role in addressing the skills shortage in the country has been well outlined; as a result, their response has been positive through the implementation of learnership programmes. The Skills Portal (2007) mentions that Mweb provides learnership programmes, combining both theory and workplace experience and participants are developed for specific places throughout the company, functioning in a range of departments during the course of the year's programme. The three levels for which Mweb recruits learnerships are: NQF level 2 for entry-level call centre operators; NQF level 4 for technical operations agents and NQF level 5 for systems developers, programmers and website developers.

In addition, South Africa Good News (2008) holds that further response to the critical shortage of skilled professionals has been in Information and Communication Technology (ICT). South Africa's new telecommunication services provider, Neotel, has launched a training academy that offers courses, equipment and internship opportunities. The ICT SETA accredits the course.

In response to the issue of skills shortages, South Africa, as a country, has gone through the implementation of relevant policies such as the National Skills Development Strategy, which was established after 1994. The Skills Development Act of 1998 served as an instrument to establish the 25 SETAs across the different sectors of the economy. SETAs are responsible for upgrading workers' skills, providing learnerships to the unemployed and training the unemployed through social development projects via the National Skills Development Strategy (du Toit, 2005:11).

During the launch of the Joint Initiative on Priority Skills Acquisition (JipSA), Phumzile Mlambo-Ngcuka,the South Africa deputy president, recognised that one of Apartheid deepest scars was having denied black people the quality education and skills(JipSA, 2007:2). This resulted in the lack of sufficient skills now, causing the country to have a shortage of highly specialised skills, which has been identified as one of main constraints to job creation and economic growth in South Africa. In order to address these issues, in 2000 the ANC government created a new institution known as SETA, with the main objective to assist with combating poverty, creating employment and fulfilling equity employment targets.

Association of the brain drain with socio-political change has been so widely accepted that no one so far has challenged the trend exhibited by the official figures. SAMP concluded after a survey of 200 South African public and private sector enterprises in 1999, which found only 2000 to 3000 foreign skilled personnel in total, that "the actual labour market impacts of brain drain have yet to be satisfactorily understood'. It does not say what percentage is from Africa, and how many are from other parts of the world. SAMP indicated that there is "no crippling shortage of skills across the board; this suggests that brain drain impacts are likely to be sector and firm specific".

Surely this condition cannot remain the same after a decade of conducting the survey. A more holistic examination of skills shortage is required. Future surveys must include existing, emerging and potential skills that are required. The reality in South Africa is that skills scarcity prolongs unemployment and under-development in many communities. Basic social and economic development is retarded because of the 'priority' skills crisis.

A society can only be proud of its democratic status when unemployment and poverty are no longer a national problem. Citizens vote to change their socio-economic conditions for the better. Blacks experience unemployment rates that are nearly twice that of coloureds (30% and 21%, respectively), compared with 4% among whites nationally (unemployment among the poor is at 50%).

South African firms pay a premium for skilled and educated workers, mostly "white managers" whose wages are twice as high as those in Poland and three times as higher than those in Brazil. When compared with both countries, South Africa is on

top. Chinese companies train more than 70 to 80 percent more workers than their South African counterparts. According to the report, more than 80 percent of South African workers reported not having formal qualifications. The imbalance is in engineering, where only 4 percent are blacks (Xinhua and English, 2005:12-14).

According to Fourie (2006:47-48), the brain drain problem is not specific to South Africa and other developing countries, but to almost every country, although the extent differs and responses to contain or reverse the brain drain effect of their HSPs abroad also differ. According to Meyer et al. (1997) and Cohen (1997), the taxation theory could take two forms; either taxing the individual emigrant or the intended host country. This theory was popular in the 1970s and 1980s but was never implemented.

The policy of regulation through international reform was initiated by the UN and is based on agreements between developed and developing countries. Countries agree not to entice highly skilled people from developing countries, while the success of the strategy depends on the individual's agreement between the country of origin and the host country.

Conservation/restrictive policies are targeted at delaying emigration. For example, by adding an extra year to the studies of medical students. A relaxed market-driven solution is to ignore the emigration of HSPs and allow the brain drain from a different country to replace lost skills. The success of these strategies depends on various factors. Firstly, it depends on the availability of skills in the country of origin; secondly, only HSPs within industries that are experiencing a shortage of skills should be attracted and thirdly, the number of foreign HSPs that enter should be regulated to protect national HSPs from needing to compete with foreign HSPs.

Another variation of the market is to recruit in the target countries while developing immigration incentives(for example, in Canada foreign doctors who work in rural areas are allowed accelerated immigration status).The replacement recruitment strategy solution ignores the emigration of local HSPs but actively recruits HSPs from other countries to replace lost skills (Crush, 2004).

## 4.8 GOVERNMENT INITIATIVES TO COUNTER BRAIN DRAIN IN SOUTH AFRICA

The National Audit of Health Human Resources conducted in 1997, identified that in South Africa there were 17,728 practising doctors, of whom 10,067 were in the private sector and 7,665 in the public sector. Beyond this historical and political relationship between Cuba and RSA, this acute problem served as the basis and the rationale for bringing Cuban doctors to South Africa. These numbers created an apparent perception that the country had an adequate number of doctors and nurses in South Africa, but the reality is that there is a major problem of misdistribution and that unless drastic measures are introduced to correct the misdistribution with its urban bias, training more health personnel and education will not necessarily resolve but may exacerbate the problem (Van Niekerk & Sanders, 1999).

The National Department of Health (1999) holds that the government has addressed the skills shortage in South Africa by employing skilled foreign workers. A programme involving some 450 Cuban professionals is one of the first examples of this a sign of "excellent" bilateral relations with the country. They are currently working in several departments, including housing, health and water affairs and forestry. The majority of them, some 240, work as doctors, while others are employed as architects, engineers and technicians. According to the Public Service Commission, 53 foreign practitioners from other countries are employed as engineers, while Iranian and British doctors are also being deployed in rural areas. The Cuban doctor programme was one solution. The South Africa Department of Health is concluding a similar bilateral agreement to implement a programme that will allow Iranian doctors to work in rural health facilities (Báez, 2004:9).

This arrangement is, in a way, similar to the Cuban deal, which has allowed for Cuban doctors to work in South Africa's rural areas. Like the Cubans, the Iranian doctors will be posted in the rural areas of Mpumalanga, Limpopo and North-West province. About 80 doctors from the UK are presently working in South Africa's under-served and rural areas to gain experience and exposure to health challenges in the country.

R37-million was made available over three years via funding from the European Union to provide technical support to 13 rural nodes in South Africa. Back in 2004/05 the

health department allocated R 750-million to provide allowances for rural and scarce skills personnel willing to relocate as part of a strategy to attract, recruit and retain skilled health workers in villages and the public sector in general.

So far, around 62 000 full-time health professionals in specific categories have received the scarce skills allowance, irrespective of the geographic location in which they work. This ranges from 10% to 15% of the annual salary, depending on the occupational category, meaning that a medical doctor at entry level who works in a rural area with an annual salary of R 150 000 would receive a R15 000 (10%) rural allowance (South Africa. Info, 2004). Besides these government initiatives at a central level, the Gauteng provincial government initiated the Gauteng city region academic (GCRA) to provide training and development interventions. Other initiatives to address skills shortages have been undertaken by the Association for Advancement of Black Accountants in southern Africa. They reported that their initiative to encourage further studies within accountancy reached 28 483 in April 2009. The number of black CAs surpassed the 1 000 mark. Neotel, a South African telecommunication network operator, launched a Neotel training academy to develop a pool of expertise in response to current skills shortages and future needs, working closely with Nokia Siemens networks, Cisco systems and Huawei technologies, to provide training material, equipment, trainers, as well as internship opportunities, which were accredited by the Information and Communication SETA.

According to Pringle (2009), the Department of Home Affairs (DHA) would review its permitting policies, which might include extending the length of work permits for foreigners with scarce skills, Dr Nkosazana Dlamini-Zuma said in 2009. Home Affairs was considering changes to the current immigration permit system to make it easier for South Africa to attract people with scarce skills. The minister of Home Affairs presented an update at a media briefing in parliament on the governance and administration cluster's progress in meeting the government's programme of action in this respect.

Speaking at a media briefing in Cape Town, the Minister said that some changes could possibly be made to the Immigration Act. She noted that the DHA would, for instance, consider extending work permits for foreigners with scarce skills by up to five years, instead of the current one-year period. The Minister noted that the country's policies

had to be more welcoming in order to attract and retain scarce skills and grow the economy. She noted that the DHA also wanted to ensure that foreign students who want to study in South Africa can obtain study permits in their country of origin, instead of first having to come to South Africa and then trying to apply for a permit, wasting time that they could have spent studying (Pringle, 2009).

The Broader Economic Cooperation is also tailored to reduce the skills shortage and is administered by the Swedish Trade Council, which is located in Johannesburg, in cooperation with South Africa's Department of Trade and Industry (DTI), and funded by the Swedish International Development Cooperation Agency (SIDA). The overall objective of the programme is to create and further support economic growth for South Africa.

The programme is politically anchored within the Bi-National Commission, which consists of representation from both Sweden and South Africa, making sure that the programme is designed in a way that is politically agreeable for both countries. The Swedish Trade Council works closely with Swedish multinational companies that have chosen to participate in, and support the programme. Some of these companies are Alfa Laval, Assa Abloy, Atlas Copco, Beckers, Ericsson, Hägglunds, Metso Minerals, Nynäs, Sandvik, Scania, SKF, Swedish Match, Trelleborg and Volvo Siemens. South Africa is making a concerted effort to address its shortage of skilled artisans in the country by reviving an apprenticeship training programme.

This was launched for the industry, customers and the media at its headquarters in Midrand on 14 March 2007. According to Savides (2007), the eThekwini Municipality resorted to buying engineering graduates out of their debts to bursars and hiring skills from abroad to combat the skills shortage that is plaguing the municipality. A report by the Housing, Cleansing and Solid Waste and Corporate and Human Resources Committee described the skills shortage in the municipality as critical. It recommended that in addition to paying the debts of five students to ensure their employment within the municipality, eight engineering students would also have their fees paid to secure their employment for a limited time, once they had completed their respective courses.

South Africa's Department of Communications is launching a new IT training program to address the country's skills shortage in this industry. Designed to produce

workplace-ready graduates, the National e-Skills Dialogue Initiative will develop skills, find employment for candidates and support career learning. Focusing on different categories of IT development, the initiative will attempt to improve IT user skills, business skills, e-literacy and IT practitioner abilities (Pringle, 2009).

## 4.9    POLICY CHALLENGES

According to du Toit (2005:16), an active labour market policy framework is required with career guidance policies to serve as an important developmental instrument, and has a role to perform regarding socio and economic issues. There is no policy coordination across the relevant sectors owing to fragmentation among government departments, which make developmental policies difficult at one level, while career development policies should be part of a coherent coordination of relevant policies that relate to education and training, skills development, the labour market and social equity and development. This will link policies and practice and lead to decreases in unemployment, development of people's skills and access to support for everyone. When needed, this coherent mechanism will lead to the existence of multiple stakeholders being responsible for different elements of service delivery, according to a study by the OECD (2003). Career guidance is a key element in effective policies relating to labour market programmes, welfare, work programmes and the retention from school to work (du Toit, 2005:16).

The constraints of limited resources, which most developing countries face in public/private partnerships, customize service standards and quality (du Toit, 2005:16). According to Hope (2008:1), the author of many books that deal with African countries, brain drain experiences are of a two-dimensional nature, namely academic and professional. It does not matter what dimension is considered, as the problem in African countries is particularly acute with regard to university scholars, and its impact continues to jeopardize national and continental development.

The Basic Conditions of Employment Act (1997) and the Labour Relations Act (1996) promote collective bargaining as a means of wage determinationand strengthening unions' rights, while the Employment Equity Act of 1998 requires employers to reduce disproportionate wage differentials (Burger & Woolard, 2003:3).

## 4.10    CHAPTER SUMMARY

This chapter dealt with initiatives and policies to ameliorate the challenges that South Africa faces regarding skills shortages. The chapter concluded with an investigation into the role that certain institutions, including the government, should perform in addressing the problem and the question or rather the argument about the use of African skilled foreigners who are in the country to bridge the gap of the critical skills shortage that the country is experiencing. The problem at hand does not have an immediate solution, but rather requires proper strategies, policies and the involvement of various stakeholders to address the situation. The next chapter describes the research methods that were used to collect the required data for this study.

# CHAPTER FIVE

# RESEARCH METHODOLOGY USED TO ACCESS THE AVAILABILITY OF SKILLS AMONGST IMMIGRANTS IN SOUTH AFRICA

## 5.1    INTRODUCTION

In this chapter details of the research methods that were followed are described to obtain a clear understanding of the underlying methodological theories that are necessary in a research design. It discusses the sampling size, targeted population, research ethics and instruments that were used to analyse the data. Another purpose of this chapter is to describe the process and approach employed in the data collection and obtain responses to the research questions that were formulated.

For completion of this study and to achieve the set objective, several pieces of literature discussing the impact of a skills shortage in various contexts were examined. The researcher also briefly considered skills shortages in developed and developing nations. Relevant government policies, academics and various authors 'views were identified and studied. The research also briefly examined immigration and immigrants before considering the skills shortage in South Africa.

## 5.2    RESEARCH PROBLEM

The shortage of professionals and artisans, in particular, is seen as a result of the country's past, as the post-Apartheid government attempts to rectify the imbalances by dealing with this issue.Fasset (2010:1); Brier and Erasmus (2009:1); and the CDE (2007:3) hold that skills shortages are widely regarded as a key factor preventing South Africa from achieving its targeted six percent growth rate.

According to Pressly (2007:2), more than 40000 jobs in the public sector are vacant and this is owing to a skilled labour force not filling the vacancies either because of brain drain or because of a lack of experienced people to fill the positions.The problem, which the study sought to address, is two-fold.  The first part of the problem revolves around the need to ascertain whether South Africa's problem of a skills    shortage or brain drain is a reality or a myth. The second was to investigate whether refugees, asylum seekers and immigrants of African origin have the necessary skills to serve as

an alternative to brain drain in South Africa. The research problem can be summarised as follows:

The South African public and private sectors are facing skills shortages and at the same time are underutilising the existing skills of immigrants, refugees and asylum seekers who could help to address the skills shortages and improve service delivery in the country.

## 5.3    THE OBJECTIVE OF THE STUDY

The objective of this research was to analyse and conduct a skills audit amongst the immigrant communities (refugees and asylum seekers) in South Africa and in Cape Town in particular. Also to comprehend South Africa's current problem of a skills shortage by conducting an in-depth investigation of factors that contribute to the skills shortage. The study was undertaken in order to find an alternative solution that would help to eliminate the problem. Various theories including the human capital theory were investigated.

The role of African immigrants was analysed in order to mirror the extent to which they can be used to close the gap of the existing skills shortage. The researcher critically evaluated the brain drain phenomenon in a broader international context, as well as in an African context, with particular reference to South Africa.

A skills audit was conducted in order to gauge available human resource capacity amongst the refugees, asylum seekers and immigrant community, particularly in the Western Cape.

## 5.4    RESEARCH DESIGN

Leedy (1985) describes research design as the planning and clear thinking that is essential to manage the whole investigation endeavor and the complete strategy to address the main research problem. Maree (2007:70) describes research design as a plan or strategy, which moves from primary philosophical assumptions to specifying the selection of respondents, the data gathering techniques to be used and the data analysis to be performed. Welman, Kruger & Mitchell (2005:52) and de Vos, Strydom, Fouché and Delport (2009:159) consider research design as a plan or blueprint that

provides guidelines for the researcher to reach conclusions about the research problem.

According to Pekeur (2002:143), the research design should indicate the purpose of the study and demonstrate that the plan was consistent with the study's purpose. He also holds that the term 'research design' has two meanings, one general and one specific. The general aspect of the research design refers to the presentation of the plan for the study methodology. The author of this study defines research design as a meticulous plan, which describes the problems, the instruments that should be used to resolve the problems, the strategies that should be applied, the techniques of data collection, the target population and when to begin andwhen to end in a consistent and clear way. Babbie and Mouton (2001) enumerated the following types of research design:

- In physical science research is normally based on experiments;
- Asking questions in different ways in a survey research;
- Qualitative studies are conducted in natural settings via direct observation;
- Participatory action research provides interaction amongst all participants;
- Evaluation research, experimental and quasi-experimental research and
- Non-participatory research normally includes the use of data analysis or statistics. Given the objective of this study, a survey was used as a method to collect data, while the empirical study was used to determine the existence of available skills and the type of skills amongst the immigrant community.

## 5.5     RESEARCH METHODOLOGY APPLIED

According to Mouton (2005:56), research methods are the unbiased deployment of research tools and procedures, which are necessary to achieve the desired research results in a given study.  Domingos (2007:61) indicates that a research method is the process that is used as a way in which systematic chronology leads to investigation that will help to resolve the hypothesis ideas that were gathered as evidence, in an organized way and, which can be demonstrated scientifically to achieve the expected end results that are then disseminated either partially on in its entirety.

For Babbie and Mouton (2001:12), research methodology is sets of procedures that enable researchers to collect data, which require careful planning, structuring and execution in order to produce unquestionable and high quality research results. A research method is concerned with the way evidence and ideas are put together and spread. According to Hart (1998), methodology is considered to be a system of norms, rules and ways that ease the process of data collection, providing a point of departure for selecting an approach comprising ideas, theories, concepts and definitions of the topic.

Brynard and Hanekom (1997:28) hold that "research methodology is a way or form of collecting data that need a reflection on the planning, structuring and implementation of the research in order to comply with the objectivity, truth, and validity". There are two well know approaches to research, namely the qualitative and the quantitative paradigms and these two methodological paradigms differ incisively from each other.

Mouton and Marais (1990:155-156) cited by Strydom, DeVos, Delport and Fouche (2005:73-4), identify the following characteristics for the quantitative research approach:

- It is more formalized and explicitly controlled than the qualitative approach;
- it is highly formalized and explicit and its range is more exactly defined than the qualitative research and
- it is close to physical science, as the research role is that of objective observer whose involvement with the phenomenon being studied is limited to what is required to collect data.

This is in contrast to the qualitative paradigm, where the procedure is not as strictly formalized and the scope is more likely to be undefined.  A more philosophical mode is adopted, which mainly stems from a positivism interpretative approach, is holistic in nature and aims mainly to understand social life and the meaning that people attach to everyday life and decisions.

Pekeur (2002:14) holds that research methodology tests the nature of the scope in dealing with the objectives of the investigation. For the purpose of this study the research methodology applied was quantitative and depended upon the literature

review and the research survey. For a study such as this one, that addresses social issues in a context such as this, the alternative was the use of quantitative research methods of data collection in the field.

Domingos (2007:3) citing Hart (1998), describes a literature review as steps taken while selecting the available unpublished and published documents containing information that deals with the topic and a variety of ideas, data and written evidence from various authors and a particular or specific perspective, to fulfill the main aims or postulate certain views on the nature of the topic. Rashe (2006:6) postulates that a "literature review is the revision of literature as an exacting task, calling for a deep insight and clear perspective of the overall field". The purpose is to provide insight and to educate the researcher on the perspectives and points of view of other researchers in relation to the topic.

## 5.6    DATA COLLECTION METHODS

Research data collection forms the core of quality research. Quality research data depends on the appropriate identification of respondents within a specific research with the specific purpose to elicit 'accurate' and 'relevant' data (Watkins, 2008:139). For this particular reason, data collection cannot commence if the following key elements have not been adequately addressed within the ambit of the research. According to Welman, Kruger and Mitchell (2007:188), each data collecting method and measuring instrument has its advantages and drawbacks. What counts as an advantage for one, may qualify as a drawback for another and *vice-versa*. The researcher took upon himself the responsibility for interpreting and analysing the data, which proved to be a difficult task given the complexity of the study.

According to Cooper and Schindler (2008), monitoring the process during actual data collection is advisable. Waiting until the project is completed, records and materials returned may result in unexpected problems. According to Terre Blanche, Durrheim and Painter (2006:51), data is the basic material with which researchers work, and its aim is to obtain information to keep on record to make decisions about important issues and to pass information on to others. Terre Blanche, Durrheim & Painter (2006:51) posit that data comes from observation and can take the form of numbers (numeric or quantitative data) or narrative/language (qualitative data).

In this study the researcher used the quantitative paradigm. The primary reason for a survey questionnaire being used as a research method instead of interviews is because the latter is considered to be time consuming, biased, and costly and at times, difficult to analyse(de Vos, Strydom, Fouché and Delport, 2009:167).Various issues were addressed in the questionnaire. Participants were asked questions relating to skills shortages, experience, qualifications and the impact it all has on the community, including the socio-economic impact on the development of residents in the area. Apart from the common issues, respondents were also asked questions that typically related to government strategies to address the problem and the use of African foreigners as a solution to the problem.

A pilot study was conducted on one (1) site, where a total of seventy-five (75) questionnaires were administered during the development of the questionnaire, in the greater area of Cape Town, to test the questionnaire's relevance and to ascertain whether it would be easily understood. After completion of the pilot phase, it was discovered that respondents had difficulty in responding to the open-ended questions. This did not suit the objectives of the study and changes were required for the final survey in respect of using closed questions. The questionnaires were designed and developed by the researcher, with guidance from a registered statistician and approval from the researcher's supervisor.

According to de Vos, Strydom, Fouché and Delport (2009:205),apilot study is one way in which the prospective researcher can orientate him/herself to the project that he/she has in mind. Pilot studies are conducted with either a sub-sample of the proposed sample or a small representative of the proposed sample. de Vos, Strydom, Fouché and Delport (2009:205) are of the opinion that the main reason for conducting a pilot study is to find a guide to orientate the researcher towards completion of the research, to find out if there are questions that respondents could find difficult to understand and then to rephrase certain questions in a way that will make them easily understandable to extract the necessary response/s; to establish acceptance of the questionnaire in use and to establish the probability of its favourable reception and return.

According to Jenning (2001), the reason that a pilot test is conducted is to ascertain possible problems in questions that are not well formulated or designed and any other factors that may have an effect on the results. In this research, an instrument

consisting of two sections was used: one section asked for the respondents' demographic information and the second section dealt with the most important issues pertaining to skills, qualifications, residence experience and so on. The larger part of the questionnaire provided an opportunity for the respondents to select a response from the given possibilities. This is important, as the pilot study revealed that certain questions were misunderstood due to difficulties inadequately comprehending the language and lower literacy causing barriers toeffective communication. The questionnaire allowed the researcher to objectively collect the perceptions of the respondents.

The data collection instrument used in this research was the survey questionnaire. The questionnaire was designed to enable the researcher to collect information that relates to the availability of skills amongst the immigrant community.The researcher felt that there was a need to reach a large number of participants in order to evaluate the socio-economic impact of, and their contribution to job creation in the area. In order to gain the confidence of the respondents and for ethical reasons, a confidentially statement appeared on the first page of the questionnaire.

The confidentiality statement outlined that responses would strictly be used for the purpose of this research, and that the identities of the respondents would remain anonymous. The researcher used a questionnaire as a form of data collection, and this questionnaire was distributed across the selected areas' universities, Home Affairs Department and refugee reception centres. According to de Vos, Strydom, Fouché and Delport (2009:193), sampling is the process of taking any portion of a population or universe as a representative of that population or universe. Burns and Burns (2008:181) define a sample as a proportion that is drawn from the targeted population. In other words, some, but not all elements of the population would form the sample.

The study comprised the collection of raw data from three separate pools in order to facilitate rigorous data analyses that would produce the required evidence to address the research question. In order to establish evidence of the apparent presumption of the existence of skills among immigrants and a lack of these skills in the host country, quantitative data was collected from the pre-selected areas. This data pool contained the qualifications, skills and work experiences of the respondents according to

countries of origin and their suggestions to resolve the issue, while a second pool of qualitative data was retrieved through the literature review.

The review does not influence the respondents but does allow for a considerable degree of bias. Limits must be set for the study, for collecting data through means such as survey questionnaires and establishing the procedure for recording the data. This is important for increasing the reliability of a study. The quantitative research method of a survey questionnaire was the first option that was used as the technique to collect data. The reason to use the survey questionnaire as a research method instead of interviews was because the latter is said to be time consuming (Aronson, Ellsworth, Smith, Gonzales, 1990).

## 5.9    RESEARCH LOCATION

The location for this research was the area of Cape Town, which is situated within the Western Cape Province, and preselected areas, where immigrants of African origin were located, such as universities, the Home Affairs Department and the Cape Town Refugee Reception Centre.

## 5.10    QUANTITATIVE RESEARCH METHODOLOGY USED

The quantitative research approach looks at investigating things that can be observed and measured in some way. Maree (2007:145) defines quantitative research as a process that is objective and systematic in its ways of using numerical data from only a selected subgroup of a universe or population to generalise the findings to the universe that is being studied. When conducting a study that makes use of quantitative research, the numerical measurement of specific aspects of phenomena is imperative and has to be precise.

Stead and Struwig (2001) define quantitative research as results represented in the form of numbers and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect. In quantitative research, it is important that a specific aspect of phenomena has to be exact in terms of numerical measurement. This is important, especially when the researcher is interested in establishing facts that can be generalised across the whole population, as this will

enable one to generalise any characteristic discovered in a particular location, across other similar communities within the Western Cape (Glesne, 2006:79).

Mouton and Marais (1988) emphasize that this technique and method of research uses numbers to quantity or to represent values that are viewed as a better from of describing a phenomenon. The measurement of users and the frequency of their visits to the project facilities at the different locations, as an example,portray the nature of the quantitative approach. This is in contrast to qualitative studies that produce data in the form of peoples' words, or the researcher's descriptions of respondents' perceptions, feelings, sentiments and opinions.

According to Creswell (2012:113),post positivist claims are primarily used by the researcherand quantitativemethodology aims to develop knowledge of cause and effect, to specify and clarify variablesand hypotheses and to respond to questions, use measurements and test theories, employ strategies of inquiry such as surveys, and predetermined instruments that yield statistical data. The quantitative methodology that was applied in this study was used to determine the number of people in the immigrant community that have skills, and the type of skills that could impact on job creation in the country.

This method was chosen so that a large number of the research population could be reached and represented in order to avoid unfairness in the study. The outcome of the questionnaire was later analysed by a qualified statistician.

## 5.11    DESCRIPTION AND IDENTIFICATION OF THE STUDY'S TARGET POPULATION

According to Welman, Kruger and Mitchell (2005), sampling is the process that is used to select cases for inclusion in research. Collis and Hussey (2009:106) posit that a correctly chosen sample presents an accurate extract of the population, without error or bias in the results. The researcher must ensure that the sample is collected in a systematic manner so that the impact of the sample members on the results can be estimated and evaluated.

The choice of a sample size is crucial, as Struwig and Stead (2007) holdthat accuracy of the measurement must be balanced against cost and feasibility. Emory and Cooper (1991) define two methods of survey sampling, which are described below.

The conventional sample where by a limited number of elements that are smaller than the chosen population are considered (typically randomly) in such a manner as to accurately represent (without bias) the total population. The census approach is where attempts are made to survey every element within the population. The sampling procedure was initiated by identifying the target population to be studied. In the case of this research study, the target population in terms of a geographical area comprised immigrants of African origin that reside in Cape Town.

The sampling procedure was designed to produce a non-representative sample. The selection procedure of the population sample was based on two sampling methods, namely random sampling and purposive sampling. The target population consisted of immigrants of African origin, whether educated or not, from 18 years on wards and who live in the Western Cape. The geographical region that was selected for this study was Cape Town, because of its high volume of immigrants.

## 5.12    SAMPLING TECHNIQUES

In any research, it would be futile and impossible to try to reach the entire population of a study. Through an appropriate sampling technique a researcher can draw a representative sample or a small collection of elements or cases from the larger population. The techniques that are used in drawing the sample could either be by probability or non-probability sampling (Stead and Struwig, 2001). As part of the quantitative approach, a non-probability technique, *purposive sampling,* was adopted to acquire the information needed rather than any of the probability techniques that are usually associated with quantitative methods.

Stead and Struwig (2001) stress that the quantitative sampling technique allows for findings that can be generalised and to acquire understanding of a certain context across the entire sample population, as was the case in this research, where the context involved immigrants of African origin. The study was limited to the above-mentioned group. The type of sampling technique that was used for the survey implies

that sample members should conform to certain criteria (Cooper and Schindler, 2003). In this case, the sample members had to be eighteen years and above and reside in Cape Town, in the Western Cape Province. The survey questionnaires were only handed to community members who met these criteria. A total of 500 respondents were targeted and the respondents were chosen by means of the random sampling technique. From the target group, only two hundred responded to the questionnaire, which was a representative sample of the target population.

## 5.13    SURVEY ADMINISTRATION

The questionnaire was delivered by hand and administered on the spot by the researcher to the targeted population that was found in refugee reception centers, universities and the Department of Home Affairs. The researcher employed two students as research assistants. Before distributing the questionnaire to the participants, permission was sought and the subsequent administration of the questionnaires was done with the assistance of the two research assistants. The researcher had a session with the targeted population, explaining the procedure of completing the questionnaire.

## 5.14    SURVEY APPROACH

Stead and Struwig (2001) believe that the survey method is suitable for providing a fast and efficient way of gathering data and reaching a larger portion of the population at relatively low costs as opposed to other collection methods. According to Leedy (1985:92),"for the data that is quantitative in nature and that needs statistical assistance to attract their meaning the analytical method is appropriate". More importantly, as Stead and Struwig (2001) mention, the survey is among the most popular methods used by researchers in information systems for the following reasons:

- They permit researchers to determine the values and relationships between variables;
- They provide answers that can be generalised to other similar populations;
- They can be reused easily and provide an objective way of comparing responses over different groups, times and places;

- They can be used to predict behaviour;
- They permit theoretical propositions to be tested in an objective fashion;
- They help to confirm and quantify the findings of qualitative research.

Surveys do not allow for face-to-face interaction with the respondent, as is the case in an interview. In addition to the survey method, the historical method was also employed.

### 5.14.1 Survey design

Collis and Hussey (2003) opine that if research is to be conducted in an efficient manner and make the best of opportunities and resources that are available, it must be organised. It should provide a coherent and logical route to a reliable outcome, it must be conducted systematically, using appropriate methods to collect and analyse the data. The research survey was designed in accordance with the following stages:

**Stage one:** Identify the topic and set objectives;

**Stage two:** Pilot a questionnaire to find out what people know and what they regard as being important issues;

**Stage three:** List the areas of information needed and refine the objectives;

**Stage four:** Review responses to the pilot;

**Stage five:** Finalise the objectives;

**Stage six:** Write the questionnaire;

**Stage seven:** Re-pilot the questionnaire;

**Stage eight:** Finalise the questionnaire;

**Stage nine:** Code the questionnaire.

The survey design used both the descriptive survey and the analytical survey. According to Collis and Hussey (2003), the descriptive survey is frequently used in business research in the form of attitude surveys. It has characteristics that indicate

how many members of a particular population have a certain characteristic(Gay and Diehl, 1996; Ghauri and Grønhaug, 2005). Particular care was taken to avoid bias in the formulation of the questions. The statements within the survey were designed with the following principles in mind: avoidance of double-barreled statements; avoidance of double-negative statements; avoidance of prestige bias; avoidance of leading statements and avoidance of the assumption of prior knowledge.  Due to the fact that surveys are highly structured, questions were prepared and piloted to ensure that they reflected a high degree of validity (Collis and Hussey, 2009:45).

## 5.15    SURVEY INSTRUMENT

The survey instrument for this study was a questionnaire. The survey questionnaire was designed before commencement of any fieldwork.  Initial visits were made to two sites. The questionnaire was designed to enable the researcher to collect data, which included the affordability of services when provided by the government, as opposed to the private sector, whether they understood privatisation, whether privatisation had an impact on the communities, whether it had created jobs, economic growth and income and whether they had jobs.

There was a need to reach as many members of the community as possible in order to evaluate and validate the impact of privatisation. The questionnaire was important for this purpose. In order to gain the confidence of the respondents and for ethical reasons, a confidentially statement was attached to the first page of the questionnaire. The statement clearly mentioned that responses would be treated as strictly confidential, and that they would be used solely for the purpose of this research, while the identities of the respondents would not, under any circumstances, be disclosed. This was important to ensure that the respondents completed the questionnaires honestly and dispassionately. Bless Higson-Smith (1995) holds that there are shortcomings in using questionnaires, namely:

- It limits the range of responses that can be extracted from the respondents and
- It is subject to unanswered questions by respondents, which may render the questionnaire invalid. These shortcomings were experienced during this study, prompting the researcher to use two methods of data collection.

One of the primary data collection instruments in research is the survey questionnaire. Modes of data collection by questionnaire differ in several ways, including the method of contacting respondents, the medium of delivering the questionnaire to respondents and the administration of the questions. Questionnaires are an inexpensive way to gather data from a potentially large number of respondents. Often, they are the only feasible way to reach a number of reviewers large enough to allow statistical analysis of the results. A well designed questionnaire that is used effectively can gather information on both the overall performance of the test system, as well as information on specific components of the system.

If the questionnaire includes demographic questions on the participants, they can be used to correlate performance and satisfaction with the test system among different groups of users (O'Leary, 2004:58).Self-administered questionnaires are instruments in which the respondents are required to complete the questionnaires themselves. In this specific study, the questionnaires were administered and collected by the researcher. Survey instruments were distributed to a group of respondents who were gathered at the same place at the same time. Although anonymity could not be guaranteed while the research was in progress, confidentiality was ensured throughout the process. As part of the introduction to the administration of the questionnaire, both the researcher and the purpose of the study were introduced, and the process was explained in English, as this was the common language amongst all parties concerned (O'Leary, 2004:90).

The researcher's assistants were helpful in assisting with completing the survey questionnaires. A total of 500 questionnaires were administered, however, only two hundred were returned. The questionnaire was not administered in the entire Western Cape owing to the specification of the study. The advantage of questionnaires is that they "area relatively quick way of exploring the opinions of a large number of people" (Gay & Diehl, 2011). Responses can be anonymous and they also allow those who are generally not good public speakers a chance to respond in writing. The questionnaire was constructed in a manner that prevented any bias or unethical conduct from the researcher. There was no personal contact between the researcher and respondents during completion of the questionnaires as a precautionary measure to ensure objectivity and honesty from the respondents (Watkins, 2008).

Groves, Singer and Tourangeau (2004:156) maintain that closed-ended questions are a good source to limit lengthy answers, where necessary. The closed-ended questions were pre-coded for analysis purposes. All the questionnaires were assigned a serial number on each page to identify the questionnaires and to avoid any confusion, should any pages of the questionnaire go missing.

**Closed-ended questions:** provide 'ready-made' categories within which respondents reply to the questions that the researcher posed and help to ensure that the information that is required by the researcher is obtained (Kumar, 2005). The respondents were given a set of alternative choices from which they could choose to answer the question, for example, "yes," or "no," multiple choice, a rating or a ranking. Closed-ended questions can usually be answered quickly, allowing researchers to gather large amounts of information quickly. The disadvantage is that respondents may rush through the questions and not take enough time to think about their answers. This type of questioning was regarded as beneficial for this topic, as the questions and answers that were provided were instrumental in identifying and providing input related to the hypothesis that was presented (Madikizela, 2008:65).

**Bias*:* The primary goal of research is to arrive at valid conclusions through scientific enquiry. Valid conclusions can only be reached in observational or experimental research if biases can be eliminated. Bias is defined as a systematic deviation from the truth, which can potentially take place in the design, implementation, or analysis of a study. In most cases, bias cannot be completely eliminated, but it can be minimized (Dunn et al., 2003).

### 5.15.1 Validity of questionnaires

Any measurement procedure needs to be valid and reliable. Reliability refers to the confidencethat the measuring instrument will generate the same numeric value when repeated on the same object (Gaur, 2006). A measuring instrument is valid when it measures what it is supposed to measure. If an instrument is considered to be reliable, it does not necessarily mean that it is also valid. According to Babbie & Mouton (2002), the way to ensure reliability is to use measures that have proven their reliability in previous research.

According to Welman, Kruger &Mitchell (2005), validity ensures that data sets that are collected are pertinent or relevant to the research. Welman, Kruger &Mitchell (2005) citing Schwandt (1997), define validity as "sound, cogent, well-grounded justifiable or logically correct data". Validity is concerned with reducing the amount of interference by non-relevant or non-valid aspects.

Another way to measure reliability is by using the test-retest method, which measures the same object twice and correlates the results (Rubin & Rubin, 2007:185). The measure is reliable if it generates the same answer in repeated attempts. Establishing reliability in this way is, however, difficult, as the respondent who repeatedly undergoes the same test cannot remain neutral to the test.

Other ways of assessing reliability include Cohen's kappa coefficient for categorical data and Cronbach's alpha for internal reliability of a set of questions (Gaur, 2006).In terms of measurement procedures, validity is the ability of an instrument to measure what it is designed to measure (Maxwell, 2005:78). The research is concerned with investigating a hypothesised causal relationship between an independent variable and a dependent variable. If such a relationship is found, inferences are drawn about the population, and perhaps a variety of circumstances in which the relationship may apply beyond those of the particular study being carried out (Cooper and Emory, 2007:123-130).

Validity is premised on the assumption that what is studied can be measured or captured and seeks to confirm the truth and accuracy of this measured and captured data, as well as the truth and accuracy of findings or conclusions that are drawn from the data (O'Leary, 2004:78).

### 5.15.2  Reliability of questionnaires

Reliability is premised on the notion that there is some sense of uniformity or standardisation in what is measured, and that methods need to consistently capture what is explored (O'Leary, 2004). An instrument is proven reliable if it provides the same results on repeated trials. A research instrument is reliable if it is consistent and stable and, hence, predictable and accurate. Reliability is analysed using SPSS by

calculating the correlation of values of items for questions to which responses are predicted.

An appropriate reliability test for a single occasion data collection is Cronbach's coefficient alpha, which is an estimate of the internal consistency of responses to different scale items (Collis and Hussey, 2009).

Reliability can be broken down into various issues, as outlined below.

It proves that the coded data set produced from analysis is consistent. Multiple coders can be used and their results should have minimal discrepancies. The coding instrument should be standard. It should incorporate well-defined decision categories with well-specified decision rules. Struwig and Stead (2007:138) assume that these two concepts are usually complementary, albeit with occasional cases of conflict. If test scores are not reliable, then they are also not valid. Researchers are more concerned with the accuracy than the validity of data in most quantitative researches.

### 4.15.3  Measurement scales

The survey used the well-known Likert scale, which was developed by Rensis Likert (Likert, 1932:1-55), which uses item analysis to select the best items. The respondents were asked to respond to questions or statements. The main reason for choosing the Likert scale was owing to the fact that the scale can be used in both respondent centered (how responses differ between people) and stimulus-centered (how responses differ between various stimuli studies) scenarios, which was appropriate to glean data in support of the research problem in question (Emory and Cooper, 2007:180-181).

The Likert scale is an effective method that is used to obtain a consistent survey response. It allows participants to provide feedback that is slightly more expansive than a simple closed-ended question, but also much easier to quantify than a completely open-ended response. The advantages in using the popular Likert scale, according to Emory and Cooper (2007:180-181), are because: they are easy and quick to construct; each item meets an empirical test for discriminating ability; the Likert scale is probably more reliable than the Thurston scale, and it provides a greater volume of data than the Thurston differential scale; the Likert scale is also treated as

an interval scale and interval scales have the benefit that the scale data can be analysed by virtually the full range of statistical procedures.

According to Emory and Cooper (2007:179), interval scales facilitate meaningful statistics when calculating means, standard deviation and the Pearson correlation coefficients. Based on the Likert scale, the dichotomous scale and open-ended questions, respondents were asked to respond to each of the statements by choosing one of the five agreement choices that were placed on the Likert scale. The five agreement choices are those shown below:

Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree.

## 5.16    CHAPTER SUMMARY

A thorough study of all research methods was undertaken and this chapter dealt with the empirical study in order to achieve the objectives of this study. The next chapter presents an in depth analysis and discussion of the results and the research findings. This chapter has provided two main areas and objectives of focus. The first was to present the research instruments that were used for the study's data collection.

# CHAPTER SIX

# DATA ANALYSIS, PRESENTATION AND DISCUSSION

## 6.1    INTRODUCTION

Chapter six provides an analysis regarding the kind of study conducted during this research. In order to obtain the desired results for this research, a set of survey questionnaires and other documents were reassessed. This chapter also provides information on how the data we recollected, interpreted, processed and analysed. The evidence was analysed and interpreted in relation to the key objectives, which were to analyse the availability of skills among foreigners and their socio-economic impact in certain areas in the Western Cape.

Data were analysed by using the Statistical Package for Social Sciences (SPSS). The chapter delineates an analysis of the variables investigated. During this phase of the study the services of a qualified statistician were required to analyse and interpret the quantitative data. The researcher took sole responsibility for analysing and interpreting the qualitative data, which proved to be a difficult task due to the complexity of the study.

## 6.2    DATA COLLECTION

Firstly, the empirical survey method was used to collect the data. According to Ntozima (2004) citing Leedy (1985:92), "the empirical survey method is appropriate for the data that are quantitative in nature and that need a statistical assistance to attract their meaning." The collection of data was achieved by handing the questionnaire to possible respondents and also via a literature review of books, articles and journals. During the development of the questionnaire a pilot study was conducted in the Western Cape with specific reference to the area of Khayelitsha to ascertain thequestionnaire's relevance and user friendliness. Twenty five (25) respondents in greater Cape Town metro participated in the pilot study.

The questionnaire contained quantitative methods of data collection. A number of people completed the questionnaire while others refused to participate citing dissatisfaction with other research and surveys conducted in other areas and they

have not yet seen the results. One reason cited was the non-implementation of results acquired, thus considering it a waste of time. The Western Cape was chosen because of its popularity as a destination for immigrants. The second reason is that it is the target area for similar studies. The response was only accepted in English. Although the majority of the population is conversant in English, an interpreter was required to better explain the questions and to correct responses in instances where the respondents were not conversant in English.

The target population for this study amounted to 500. Survey questionnaires were sentbut only two hundred were returned. The questionnaire process was conducted during a 6month period, every weekend and some weekdays. The sample was randomly selected in each identified area of the target population.

## 6.3     CODING AND PRESENTATION OF DATA

A total of 500 questionnaires were distributed to various universities, the Department of Home Affairs, townships and the city centre of Cape Town, but only 200 were returned. These questionnaires were later captured in the form of numbers. The researcher used the SPSS programme to analyse the data and reduce the bulk of the raw data into workable, ordered information. SPSS was chosen because of its popularity in both academic and business circles.

According to Chinedu and Wilson (2009:17), SPSS is a resourceful package that allows different types of analysis, data transformations and forms of output. It provides greater security and efficiency in the processes and delivers a higher quality of results. It also provides sample management features and streamlines multi-modal data collection, as well as the storage, coding, analysis and presentation of data. Descriptive statistics and content analyses were the two techniques employed to analyse the data. These descriptive statistical and content analysis methods were used to systematize data into simpler forms and to emphasise features that were most relevant to this research study. The data were represented in different categories numerically as follows:

Under the gender and employment category, formal or informal, data was presented as '1'of male and '2'for female. As well as '1'representingfull time job and '2' for part-time job. The same for formal and informal as the table indicates below:

*Code*

| | |
|---|---|
| Male | 1 |
| Female | 2 |

*Code*

| | |
|---|---|
| Full time ( permanent) | 1 |
| Part time ( temporary) | 2 |

*Code*

| | |
|---|---|
| Formal | 1 |
| Informal | 2 |

In the age category data was represented in the manner in which the table indicates below: 1 to 5 in a sequential way as represented in the table.

*Code*

| Under 20 | 21-30 | 31-40 | 41-50 | 51 Over |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Under reason for leaving category data was presented in the following sequence order: the sequence is as represented below from 1 to 7.

*Code*

| War | Economic factor | Political factor | Environmental factor | Academic Purposes | Social factors | Others please identify |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

When it came to the level of education, data were displayed in the following manner:

***Code***

| Grade 1-Matric | Diploma | Degree | Masters | PhD | Post-doctoral | others |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Nevertheless, questions numbering in sequential order in section 2 of the questionnaire such as Q.1, Q.2, Q.3, Q.4, Q.5, Q.6 were used applying the Likert scale. TheLikert scale was used as portrayed in the table below to describe research items such as:

***Code***

| Strongly agree | 1 |
|---|---|
| Agree | 2 |
| Unsure | 3 |
| Disagree | 4 |
| Strongly disagree | 5 |

Nevertheless, questions numbering in sequential order in section 2 of the questionnaire such as Q.7, Q.8, Q.9, were presented in a '1' for Yes, '2' for No and '3' for I do not know, as portrayed in the table:

***Code***

| 1 | 2 | 3 |
|---|---|---|
| Yes | No | I do not know |

Type of permit, current occupation, position at work, area of work, previous field of study were coded as shown below:

*Code*

| Study permits | Working Permit | Refugee status | Others please identify |
|---|---|---|---|
| 1 | 2 | 3 | 4 |

*Code*

| Working | Studying | Business | Others |
|---|---|---|---|
| 1 | 2 | 3 | 4 |

*Code*

| Government | NGO | Self-employment | Private Company | Others |
|---|---|---|---|---|
| 1 | 1 | 3 | 4 | 5 |

*Code*

| Employee | Supervisor | Middle manager | Senior Manager | Others |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

*Code*

| Applied Science | Business | Education and Social Science | Engineering | Health and Wellness Science | Informatics and Design |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| Other ❑ 7 | | | | | |

Meanwhile, questions in non-sequential order such as Q.9, Q.7, Q.6, Q.8 were presented in the questionnaire item as the tables below display:

*Code*

| Employee | Supervisor | Middle Manager | Senior Manager | Others please identify |
|----------|------------|----------------|----------------|------------------------|
| 1 | 2 | 3 | 4 | 5 |

**Code**

| Government | NGO | Self-employment | Private Company | Others |
|------------|-----|-----------------|-----------------|--------|
| 1 | 2 | 3 | 4 | 5 |

*Code*

| Working | Studying | Business | Others please identify |
|---------|----------|----------|------------------------|
| 1 | 2 | 3 | 4 |

*Code*

| Years | 1 | Months | 2 | Days | 3 |
|-------|---|--------|---|------|---|

1-2 Years ❏1             2-3 Years❏2         More than 3 Years ❏3

The researcher also made use of one open ended question to identify the country of origin. After completion of the study they were organised according to the countries mentioned and coded from 1 to 14.

## 6.4    RESEARCH QUESTIONS, SUB-QUESTIONS

### 6.4.1    Research question

In light of the problem presented, the main research questions arising from this are:

- Does the immigrants' community of African origin have the necessary critical skills that the country needs?

- Can the skills that refugees, asylum seekers and immigrants brought with them be used to serve as viable alternatives to the skill shortage in South Africa?
- What types of skills do immigrants,refugees and asylum seekers have?

### 6.4.2 Sub-questions

The following are sub-questions that were formulated, the resultsof which will provide an answer to the research question:

- What is the cause of the skills shortage in South Africa?
- What socio-economic impacts is their presence likely to have on South Africa in future?
- How can the problem of a skills shortage be addressed in light of the present situation?

Various issues were addressed in the questionnaire. Participants were asked questions relating to skills shortages and availability, qualification, work experience occupation past and present toassess their socio-economic contribution and the impact it has in the Western Cape. Apart from the common issues, respondents were also asked questions typically relating to government strategies to address the problem, and the use of African foreigners as an alternative to the problem. The questions were divided into sections (see appendix A). Section A dealt with bibliographic information, while section B dealt with the survey on the skills shortage. In order for the researcher to arrive at this set of questions, questions were drawn from the research's main questions and sub-questions as well as from the research objectives.

### 6.5    DATA ANALYSIS AND INTERPRETATION OF THE RESULTS

An analytical and statistical data analysis was performed and a thorough interpretation was conducted from the information obtained through the completed questionnaires. The research population selected for the completion of the questionnaire constituted the immigrants of African origin, educated as well as uneducated, employed and unemployed, from eighteen to over fifty-one. According to Gardner (1978:122),"to understand the results sometimes requires two separate processes. Firstly, we must find out what the results are saying; then and not before, we may search what they

mean." In regard to the analysis, Kavale (1996:177) holds that "the purpose of analysis is to uncover the meaning of the question, to make explicit its presuppositions and thereby the implicit conceptions of qualitative research it implies."

Kavale (1996:186) indicates that "the interpretation focuses on the tension between what is said and what is not said in the question." The interpretation of all research findings in this study was objective. This included the interpretation and analysis of the two hundred completed questionnaires from individual respondents and in collecting data to ascertain the availability of skills amongst the immigrant community. Regarding data analysis and interpretation, Allan & Skinner (1991:185) warn that" just because the data collection is defined as qualitative does not mean that you should eschew all quantitative elements in your analysis. You will find that incorporating appropriate descriptive and quantitative material into the thesis supports the qualitative arguments being made rather than detracting from them and this also happens even when the data collection is defined quantitative."

## 6.6 DEMOGRAPHIC DESCRIPTION OF THE RESPONDENTS

**Table 6.1: Respondents Gender**

| Gender | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Male | 103 | 51.5 | 51.5 | 51.5 |
| | Female | 97 | 48.5 | 48.5 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |

The responses obtained from the survey with regard to gender were relatively balanced, as shown in table 6-1. From a total of 200 respondents, 51. 5% of the respondents were female while the remainder, 48.5% were male. It indicates that there are a substantial number of female immigrants in South Africa. This fact has not been well represented in most studies. What was not asked is their status, whether they are single or married, and if married, where their husband or partner is currently living? This was not relevant for the objectives of the study. In relation to the research, the responses provided the researcher with an understanding of who is in the country in

terms of gender, there by offering an opportunity for the government to review its policy priorities.

**Table 6.2: Respondents' Age**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Under 20 | 12 | 6.0 | 6.0 | 6.0 |
| | 21 to 30 | 133 | 66.5 | 66.5 | 72.5 |
| | 31 to 40 | 49 | 24.5 | 24.5 | 97.0 |
| | 41 to 50 | 6 | 3.0 | 3.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |

When the researcher asked the age of respondents, it was primarily to identify and assess the age group of the immigrant community in the Western Cape and South Africa in general. From a total of 200 respondents, 133 respondents representing 66.5% were from 21 to 30 years of age, while 49 respondents representing 24.5% ranged in age from 31 to 40 years. Lastly, one other important group that falls under the category of heads of family or heads of household ranges in age from 41 to 50 years old, accounting for 3%.The answer to this questionexplains why there are so many skilled African migrants, as judging by their age, most of them are in their prime and most probably have adequate skills.

**Table 6.3: Respondents country of origin**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| **Country of Origin** | | | | | |
| Valid | Botswana | 14 | 7.0 | 7.0 | 7.0 |
| | Angola | 34 | 17.0 | 17.0 | 24.0 |
| | Kenya | 5 | 2.5 | 2.5 | 26.5 |
| | Nigeria | 15 | 7.5 | 7.5 | 34.0 |
| | Zimbabwe | 17 | 8.5 | 8.5 | 42.5 |
| | Somalia | 1 | .5 | .5 | 43.0 |
| | Congo DRC | 5 | 2.5 | 2.5 | 45.5 |
| | Congo Brazaville | 10 | 5.0 | 5.0 | 50.5 |
| | Rwanda | 30 | 15.0 | 15.0 | 65.5 |
| | Lesotho | 4 | 2.0 | 2.0 | 67.5 |
| | Cameroon | 4 | 2.0 | 2.0 | 69.5 |
| | Namibia | 28 | 14.0 | 14.0 | 83.5 |
| | Gabon | 10 | 5.0 | 5.0 | 88.5 |
| | Ghana | 23 | 11.5 | 11.5 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |

Respondents were asked their country of origin to ascertain the nationalities that mostly immigrate to South Africa. The answers indicatea pattern, showing that most immigrants are either from east African or Southern African countries.

Another noticeable pattern that will be explained is the type of document they use for immigrants from SADC and the east Africancommunity. By asking the question regarding origin, the researcher intended to assess the profile and origin of the people affected. This would enable the researcher toprovide a relevant and accurate recommendation in relation to the type of policies that should facilitate integration, given the origin of some of the respondents.

**Table 6.4: Respondents' duration of stay**

| Duration of Stay | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | 1 to 2 Years | 23 | 11.5 | 11.6 | 11.6 |
| | 2 to 3 Years | 86 | 43.0 | 43.4 | 55.1 |
| | More than 3 Years | 81 | 40.5 | 40.9 | 96.0 |
| | | 4 | 2.0 | | |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

In the question regarding the time and duration of their stay in South Africa, most respondents, as indicated in Table 6.4 43%, of the 200 respondents 43.4 percent have lived in South Africa for 2 to 3 years, 40.9 % have stayed for more than 3 years and 11.5% for 1 to 2 years. This indicates that either there are many people still coming into the country or they lie about the duration of their stay, or else there is a reverse migration or brain circulation due to the fact that most people surveyed had not been living in the country for long.

**Table 6.5: Reason for leaving the country of origin**

| Reason for leaving country of origin | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | War | 9 | 4.5 | 4.5 | 4.5 |
| | Economic factors | 16 | 8.0 | 8.0 | 12.6 |
| | Political Factors | 113 | 56.5 | 56.8 | 98.5 |
| | Environmental factors | 1 | .5 | .5 | 41.7 |
| | Academic purpose | 57 | 28.5 | 28.6 | 41.2 |
| | Social factors | 1 | .5 | .5 | 99.0 |
| | Others please specify | 2 | 1.0 | 1.0 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

From a total of 200 respondents as reflected in table 6.5, when giving the reason for leaving their country of origin, 56.8% the majority left for political reasons while 28.5% for academic reasons, followed by 8 % citing economic factors. Only 4.5% cited war as a reason. This allows stakeholders an insight into the possible changes regarding the type of immigrants entering South Africa and their social class. It could also refute the theory that most refugees leave their country for economic reasons, war or political factors.

**Table 6.6: Factors that attracted you to South Africa**

| Factors that attracted you to South Africa | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Academic factors | 9 | 4.5 | 5.5 | 4.5 |
| | Political factors | 16 | 8.0 | 8.0 | 12.6 |
| | Economic factors | 57 | 28.5 | 27.6 | 41.2 |
| | Environmental factors | 1 | .5 | .5 | 41.7 |
| | Peace and Stability | 113 | 56.5 | 56.8 | 98.5 |
| | Social factors | 1 | .5 | .5 | 99.0 |
| | Others please specify | 2 | 1.0 | 1.0 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

It is clear from the onset that there is a substantial difference in terms of the respondents' main influencing factors from their views regarding the statement. Table 6.6 indicates the following: from a group of 200 respondents, 56.8% came to South Africa due to the peace and stability in the country. Table6.6indicate that27.6% were attracted by the economic factors, although not a primary reason, it does feature as a reason it counted as a factor attracting them to the country. However, 8.0% of the respondents decisions were influenced by political factors and only 5.5% of the respondents citedacademic reasons. 1.0% did not mention a factor while lastly, environmental factors and social factors each showed .5%.

**Table 6.7: From the factors below, which one influenced your decision to migrate to RSA**

| Which factor influenced your decision to migrate in RSA | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Academic factors | 9 | 4.5 | 5.5 | 4.5 |
| | Economic factors | 16 | 8.0 | 8.0 | 12.6 |
| | Language | 57 | 28.5 | 26.6 | 41.2 |
| | Proximity factors | 1 | .5 | .5 | 41.7 |
| | Family ties | 113 | 56.5 | 57.8 | 98.5 |
| | Social factors | 1 | .5 | .5 | 99.0 |
| | Others please specify | 2 | 1.0 | 1.0 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

As per the results in the previous Table: 6.7, one can extract information that is relevant to understanding the migrants and what makes them leave their country. As the results in Table: 6.7 indicate, from a total of 200 respondents, 57.8% said their decision to migrate to South Africa was influenced by family ties, implying that family has an important role in the final decision. 26.6% said their decision was mostly influenced by the language of the host country. Contrary to the current belief, only 8.0% where influenced by economic factors, as we see academic factors with only 5.5% acts as a push factor. Lastly, social factors and proximity both 0.5%.

**Table 6.8: Previous activity before coming to SA**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Previous Activity before coming to SA** | | | | | |
| Valid | Working | 44 | 22.0 | 27.2 | 27.2 |
| | Studying | 100 | 50.0 | 61.7 | 88.9 |
| | Business | 12 | 6.0 | 7.4 | 96.3 |
| | Working and Studying | 5 | 2.5 | 3.1 | 99.4 |
| | Other | 1 | .5 | .6 | 100.0 |
| | Total | 162 | 81.0 | 100.0 | |
| Missing | System | 38 | 19.0 | | |
| Total | | 200 | 100.0 | | |

From the responses obtained, 61.7% were still studying before leaving the country of origin while 27.2% where working in the country of origin. During the research process, it was found that many respondents worked and studied simultaneously. This was detected while reviewing the responses on the survey questionnaire. This should not be seen as a contradiction in their responses, as it could be as a result of various factors, one of which could be poverty.

**Table 6.9: Respondents' work sector before coming to RSA**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Work Sector** | | | | | |
| Valid | Government | 13 | 6.5 | 14.4 | 14.4 |
| | NGO | 3 | 1.5 | 3.3 | 17.8 |
| | Self Employment | 15 | 7.5 | 16.7 | 34.4 |
| | Private Sector | 35 | 17.5 | 38.9 | 73.3 |
| | Others Please Specify | 24 | 12.0 | 26.7 | 100.0 |
| | Total | 90 | 45.0 | 100.0 | |
| Missing | System | 110 | 55.0 | | |
| Total | | 200 | 100.0 | | |

Trade unions, concerned citizens and the public in general have claimed that immigrants are taking their jobs and that they do not create jobs. There was a need to

test those theories or assumptions. When asked about their previous employment sector, from a total of 200 respondents, 38.9% had a job in the private sector while only 26.7% did not specify where they worked. 16.7% where self-employed, while 14.4% worked for their government.

**Table 6.10: Respondents' duration of work**

| Work Duration | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Years | 73 | 36.5 | 84.9 | 84.9 |
| | Months | 11 | 5.5 | 12.8 | 97.7 |
| | Days | 1 | .5 | 1.2 | 98.8 |
| | Total | 86 | 43.0 | 100.0 | |
| Missing | System | 114 | 57.0 | | |
| Total | | 200 | 100.0 | | |

When the researcher asked the duration of work from the respondents, it was primarily to identify and assess the experience that makes up the bulk of people coming into South Africa from the immigrant community. From a total of 200 respondents, 84.9% had years of experience while, 12.8% had worked for months. Lastly, it is of importance to note that if what RSA is looking for is experience, then there is a large group of skilled and experienced individuals from the immigrant community as shown in table 6.11.

**Table 6.11: Respondents position at previous job**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | **Work position in your previous job** | | | | |
| Valid | Employee | 63 | 31.5 | 69.2 | 69.2 |
| | Supervisor | 5 | 2.5 | 5.5 | 74.7 |
| | Middle Manager | 8 | 4.0 | 8.8 | 83.5 |
| | Senior Manager | 5 | 2.5 | 5.5 | 89.0 |
| | Others please specify | 10 | 5.0 | 11.0 | 100.0 |
| | Total | 91 | 45.5 | 100.0 | |
| Missing | System | 109 | 54.5 | | |
| Total | | 200 | 100.0 | | |

Besides the experience, the researcher also intended to ascertain the position they held in their previous occupation to give an idea of the kind of experience, if it was low level, middle or managerial, allowing the policy makers to have an idea of the skills and type of experience they can draw from. From a total of 200 respondents, 69.2% had word as employees, 8.8% had middle management experience and the rest was shared between 5.5 % percent for supervisory level and senior management andthe last 11% percent specified 'other'.

**Table 6.12: Respondents' sector of employment**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | **Sector of employment** | | | | |
| Valid | Formal | 48 | 24.0 | 53.3 | 53.3 |
| | Informal | 41 | 20.5 | 45.6 | 98.9 |
| | Total | 90 | 45.0 | 100.0 | |
| Missing | System | 110 | 55.0 | | |
| Total | | 200 | 100.0 | | |

In table 6.13the intention was to ascertain whether they workedin formal or informal sector. This was primarily to understand the existent perception that immigrants are taking jobs away from localsand also establish which sector has absorbed more immigrants. From a total of 200 respondents, 53.3% work in the formal sector while

45.6% work in the informal sector. It is important to note that the statistic shows a slight difference in where people work.

**Table 6.13: Respondents' Type of employment**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | | | **Employment Type** | | |
| Valid | Part-time | 15 | 7.5 | 16.1 | 16.1 |
| | Full-time | 74 | 37.0 | 79.6 | 95.7 |
| | Total | 93 | 46.5 | 100.0 | |
| Missing | System | 107 | 53.5 | | |
| Total | | 200 | 100.0 | | |

From a total of 200 respondents, 79.6% work in full time employment while 16.1% work on a part time basis, indicating that these immigrants are actively contributing to the economy by working full time in the sector of their choice and also paying the necessary tax.

**Table 6.14: Respondents' qualifications**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | | | **Qualification** | | |
| Valid | Grade 1 To Matric | 18 | 9.0 | 18.8 | 18.8 |
| | Diploma | 75 | 37.5 | 78.1 | 96.9 |
| | Degree | 3 | 1.5 | 3.1 | 100.0 |
| | PhD | | | | |
| | Post-Doctoral | | | | |
| | Others please specify | | | | |
| | Total | 96 | 48.0 | 100.0 | |
| Missing | System | 104 | 52.0 | | |
| Total | | 200 | 100.0 | | |

By asking the question about qualifications, the researcher intended to assess the educational levels of the immigrants. This would enable the researcher to make relevant and accurate recommendations. From a total of 200 respondents, 78.1 % possessed a diploma before coming to South Africa while only 18.8% had between

from grade 1to matric and 3.1% have a three-year degree. That supports claims of the existent skills amongst the immigrant communities in South Africa. Besides beingskilled these people are black.

This shows that the government could have a source of skills to address the existing shortage. The education levels were taken into account given that all respondents have diplomas, and their educational level would help the research in terms of providing useful information regarding the status of existing skills amongst immigrants, its impact and positive recommendation.

**Table 6.15: Respondents' type of permit**

| Type of permit | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Study Permit | 127 | 63.5 | 63.5 | 63.5 |
| | Working Permit | 5 | 2.5 | 2.5 | 66.0 |
| | Refugee status | 48 | 24.0 | 24.0 | 90.0 |
| | Others please specify | 12 | 6.0 | 6.0 | 96.0 |
| | Total | 200 | 100.0 | 100.0 | |

The essence of this question was to check the different types of documentation used by the immigrant community and to establish and verify information to link to peoples' perceptions that most people that come to South Africa are illegal immigrants. The statistics and the table above indicate that is not true and that they contribute socially and economically have a positive impact and contribute to the issue of a skills shortage. The table above shows that from a total of 200 participants, 63.5% are in possession of a study permit, which outweighs the number of people with refugeepermits at 24.0%, while respondent with working permits represented 2.5% and the rest representing other forms of permits represented 6%.

**Table 6.161: Respondents' current activities in South Africa**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Working | 15 | 7.5 | 8.4 | 8.4 |
| | Studying | 162 | 81.0 | 90.5 | 98.9 |
| | Working and Studying | 2 | 1.0 | 1.1 | 100.0 |
| | Total | 179 | 89.5 | 100.0 | |
| Missing | System | 21 | 10.5 | | |
| Total | | 200 | 100.0 | | |

*Current activity in South Africa*

This table illustrates that from the respondents 'responses, it is clear that many of the immigrants are furthering their studies in South Africa to better their skills and qualifications. Although many of the participants have a diplomaor degree, the figures in the table indicate that there are a number of skilled people amongst the immigrants. Table 6.17shows that98.5% of the respondents are still studying, while 8.4% are working and the remaining 1.1% work and study.

**Table 6.17: Respondents' current employer**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Government | 5 | 2.5 | 7.7 | 98.5 |
| | NGO | 2 | 1.0 | 3.1 | 80.0 |
| | Self-Employed | 7 | 3.5 | 76.9 | 90.8 |
| | Private Company | 50 | 25.0 | 10.8 | 76.9 |
| | Others specify please | 1 | .5 | 1.5 | 100.0 |
| | Total | 65 | 32.5 | 100.0 | |
| Missing | System | 135 | 67.5 | | |
| Total | | 200 | 100.0 | | |

*Current employer*

Table 6.18above illustrates that 76.9% of the respondents are self-employed while 10.8% are government employees. It is difficult to understand how they are able to work for the government given the type or permit they hold. 7.7% are working in the private sector and the remaining 3.1% work for NGOs.The rest are unspecified. The

result above does not explain how someone with a study permit can work in the public sector. It could be that they did not understand the question.

**Table 6.18: Respondents' current working position**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | Position currently occupied at work | | | | |
| Valid | Employee | 48 | 24.0 | 75.0 | 75.0 |
| | Supervisor | 2 | 1.0 | 3.1 | 78.1 |
| | Middle Management | 4 | 2.0 | 6.3 | 84.4 |
| | Senior Management | 8 | 4.0 | 12.5 | 96.9 |
| | others specify please | 2 | 1.0 | 3.1 | 100.0 |
| | Total | 64 | 32.0 | 100.0 | |
| Missing | System | 136 | 68.0 | | |
| Total | | 200 | 100.0 | | |

This question was posed to establish what position they currently occupy in South Africa. The table above indicates that 75.0% of the respondents are simple employees while 12.5% occupy senior management positions and 6.3% occupy middle management positions. The remainder is split equally between the others with only one supervisor.

**Table 6.19: Respondents' current qualification**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **If the previous answer was study what qualification** | | | | | |
| Valid | Grade 1 to Matric | 7 | 3.5 | 3.5 | 3.5 |
| | Diploma | 59 | 29.5 | 29.6 | 33.2 |
| | Degree | 100 | 50.0 | 50.3 | 83.4 |
| | PhD | 27 | 13.5 | 13.6 | 97.0 |
| | Post-Doctoral | 5 | 2.5 | 2.5 | 99.5 |
| | Others please specify | 1 | .5 | .5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, the results above indicate thatthe majority of respondents have completed their degree studies. A number of them are still studying in South Africa. 29.5% of the respondents are studying for a diploma and 50.3% are studying for or have completed theirdegree.13.6% have a PhD Degree as the highest qualification obtained and 2.5% are studying towards a post-Doctoral qualifications.This indicates that the immigrants are well educated.

**Table 6.20: Respondents' field of study**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | **Field of study** | | | | |
| Valid | Applied Science | 11 | 5.5 | 5.5 | 5.5 |
| | Business | 75 | 37.5 | 37.7 | 43.2 |
| | Education and Social Science | 66 | 33.0 | 33.2 | 76.4 |
| | Engineering | 30 | 15.0 | 15.1 | 91.5 |
| | Health and Wellness Science | 10 | 5.0 | 5.0 | 96.5 |
| | Informatics and Design | 5 | 2.5 | 2.5 | 99.0 |
| | Others | 2 | 1.0 | 1.0 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

The results in the table above reveal that from a total of 200, 33.2% of the respodents are in the field of education and social science, 37.7% are in business and 15.1% of the respondents are in the field of engineering and applied science. 5.5% weresplitbetween health and wellnes, science and informatics and design .

**Table 6.21: Destination of earnings**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | Destination of earnings | | | | |
| Valid | Pay School fees | 9 | 4.5 | 4.5 | 4.5 |
| | Buy Food | 16 | 8.0 | 8.0 | 12.6 |
| | Paying rent | 57 | 28.5 | 28.6 | 41.2 |
| | Entertainment | 1 | .5 | .5 | 41.7 |
| | Send home | 113 | 56.5 | 56.8 | 98.5 |
| | Buy cloths | 1 | .5 | .5 | 99.0 |
| | Others please specify | 2 | 1.0 | 1.0 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

In this section of the study the intention was to establish how the money that is earned is spent to establish the spending pattern to what extent they contribute to the socio-economic fabric of the country. This information could help the government in formulating better policies. The results in the table above reveal that 56.8% send their money home as remittance while 28.6% of the respondents used the money to pay rent. 8.0% of the respondents spend their money buying food and the remainder, 4.5%, for the payment of their school fees. These results indicate that migrants do contribute to the economy of the country.

**Table 6.22: Respondents' point of view regarding the skills shortage**

| | A skills shortage does not exist in SA | | | |
|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Strongly Agree | 8 | 4.0 | 4.0 | 4.0 |
| | Agree | 7 | 3.5 | 3.5 | 7.5 |
| | Neutral or Undecided | 25 | 12.5 | 12.6 | 20.1 |
| | Disagree | 63 | 31.5 | 31.7 | 51.8 |
| | Strongly Disagree | 96 | 48.0 | 48.2 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

This section of the study, as shown in Table 6.23, deals with the statementrelatingto the existence or not of a skills shortage in South Africa. The results in the table above reveal that from a total of 200 respondents, 48.2% strongly disagree that there is no skills shortage in South Africa,while 31.7% disagree although not strongly. The remainder of 12.6% are neutral or undecided, while 4.0% strongly agree with the statement. A total of 3.5% of the respondents agreed with the statement.This view point is a percption rather that factual given that they are not South African or returnees tothe host country.

**Table 6.23: Respondents' answer to the existence of skills shortage in certain sectors**

| | A skill shortage exists in certain sectors only | | | |
|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Strongly Agree | 110 | 55.0 | 55.0 | 55.0 |
| | Agree | 31 | 15.5 | 15.5 | 70.5 |
| | Neutral or Undecided | 11 | 5.5 | 5.5 | 76.0 |
| | Disagree | 29 | 14.5 | 14.5 | 90.5 |
| | Strongly Disagree | 19 | 9.5 | 9.5 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |

The underlying principle for this question was to determine whether a skills shortage exists only in certain areas or in all areas. The results indicate that of the 200 respondents, 55.0% strongly agree that a skills shortage exists in certain areas only and 15.5% agree. 14.5% disagree and 9.5% strongly disagree. A total of 5.5% are undecided or neutral. The figures illustrated in the table above and the findings support certain literature and authors who claim that either there is a shortage of skills or that it only exists in certain areas instead of the blanket approach used by authors like Jimmy Manhi, who blamed the underutilization of blacks by their white counterparts as contributing tothe perception of a skills shortage in South Africa. These answers will help us to understand the perception of immigrants withregard to the issue at hand.

**Table 6.242: Respondents' answers relating to a skills shortage in the education sector**

| A skill shortage exists in the education sector only | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Strongly Agree | 39 | 19.5 | 19.6 | 19.6 |
| | Agree | 14 | 7.0 | 7.0 | 26.6 |
| | Neutral or Undecided | 32 | 16.0 | 16.1 | 42.7 |
| | Disagree | 72 | 36.0 | 36.2 | 78.9 |
| | Strongly Disagree | 41 | 20.5 | 20.6 | 99.5 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

These results support the findings from the literature reviewed where Brier and Erasmus (2009:1) blamed the lack of resources in schools as a contributing factor to the skills shortage The underlying principle for this question was to determine whether there was a skills shortage in the education sector alone instead of in all sectors.The study shows that from a total of 200 respondents, 19.6% strongly agree that the skills shortage exists only in the education sector and 7.0% agree with the statement. A total of 36.2% disagree and 16.1% are undecided or neutral, while 20.6% strongly disagree.

**Table 6.25: Respondents' answers relating to a skills shortage in maths and science**

| A skill shortage exists in maths and science only | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Strongly Agree | 64 | 32.0 | 32.2 | 32.2 |
| | Agree | 15 | 7.5 | 7.5 | 39.7 |
| | Neutral or Undecided | 14 | 7.0 | 7.0 | 46.7 |
| | Disagree | 51 | 25.5 | 25.6 | 72.4 |
| | Strongly Disagree | 55 | 27.5 | 27.6 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

From a total of 200 respondents 32.2% strongly agree that a skills shortage exists only in the fields of maths and science and 7.5% agree with the statement. A total of 25.6% disagree while 27.6% strongly disagrees and 7% were neutral or undecided.

**Table 6.26: Respondents' perceptions regarding the shortage of skills being a myth**

| The skills shortage is a myth | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Strongly Agree | 5 | 2.5 | 2.5 | 2.5 |
| | Agree | 10 | 5.0 | 5.0 | 7.5 |
| | Neutral or Undecided | 30 | 15.0 | 15.1 | 22.6 |
| | Disagree | 74 | 37.0 | 37.2 | 59.8 |
| | Strongly Disagree | 80 | 40.0 | 40.2 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

The results indicate that of the 200 respondents who participated in the study, 2.5% strongly agree that the skills shortage is a myth and 5.0% agree. A total of 37.2% disagree with the statement. 40.0% strongly disagree while 15.1% are undecided. The figures illustrated in the table support the finding and views shown in the literature that

was reviewed where most authors seem to believe there is a skills shortage in South Africa.

**Table 6.27: Respondents' current perception regarding theskills shortage**

<table>
<tr><td colspan="6">The skill shortage is a perception</td></tr>
<tr><td></td><td></td><td>Frequency</td><td>Percentage</td><td>Valid Percentage</td><td>Cumulative Percentage</td></tr>
<tr><td>Valid</td><td>Strongly Agree</td><td>13</td><td>6.5</td><td>6.5</td><td>6.5</td></tr>
<tr><td></td><td>Agree</td><td>14</td><td>7.0</td><td>7.0</td><td>13.5</td></tr>
<tr><td></td><td>Neutral or Undecided</td><td>22</td><td>11.0</td><td>11.0</td><td>24.5</td></tr>
<tr><td></td><td>Disagree</td><td>67</td><td>33.5</td><td>33.5</td><td>58.0</td></tr>
<tr><td></td><td>Strongly Disagree</td><td>84</td><td>42.0</td><td>42.0</td><td>100.0</td></tr>
<tr><td></td><td>Total</td><td>200</td><td>100.0</td><td>100.0</td><td></td></tr>
</table>

The table above illustrated the finding of a study conducted to determine and ascertain the underlying principle of the statement, of whether the skills shortage is a perception or a reality. This was done in order to ascertain the overall view of the respondents regarding the subject matter. The results indicate that of the 200 respondents, 6.5% strongly agree that the skills shortage is a perception and nota reality and 7.0% agree with the statement. However, a total of 11.0% are undecided and 33.5% disagree while 42.0% strongly disagree, indicating that most of the respondents believe that there is indeed a skills shortage.

**Table 6.28: Respondents' answers regarding a skill shortage in the health sector**

<table>
<tr><td colspan="6">A skill shortage exists in the health sector only</td></tr>
<tr><td></td><td></td><td>Frequency</td><td>Percentage</td><td>Valid Percentage</td><td>Cumulative Percentage</td></tr>
<tr><td>Valid</td><td>Strongly Agree</td><td>58</td><td>29.0</td><td>29.0</td><td>29.0</td></tr>
<tr><td></td><td>Agree</td><td>12</td><td>6.0</td><td>6.0</td><td>35.0</td></tr>
<tr><td></td><td>Neutral or Undecided</td><td>14</td><td>7.0</td><td>7.0</td><td>42.0</td></tr>
<tr><td></td><td>Disagree</td><td>53</td><td>26.5</td><td>26.5</td><td>68.5</td></tr>
<tr><td></td><td>Strongly Disagree</td><td>62</td><td>31.0</td><td>31.0</td><td>99.5</td></tr>
<tr><td></td><td>Total</td><td>200</td><td>100.0</td><td>100.0</td><td></td></tr>
</table>

The table above illustrated the finding of the study conducted to determine and ascertain the underlying principle of the statement made in the current study, of whether a skills shortage exists only in the health sector or in other field as well. This was asked in order to identify the respondents' view regarding the subject matter, which is the sector or area where a skills shortage exists, if it is only in a certain sector or in all sectors. The results indicate that of the 200 respondents, 29.0% strongly agree and 6.0% agree with the statement. 7.0% are undecided and 26.5% disagree while 31.0% strongly disagree.

**Table 6.293: Respondents' answers regarding a skill shortage in the public sector**

| A skill shortage exists in the public sector only | | | | |
|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Strongly Agree | 48 | 24.0 | 24.1 | 24.1 |
| | Agree | 17 | 8.5 | 8.5 | 32.7 |
| | Neutral or Undecided | 15 | 7.5 | 7.5 | 40.2 |
| | Disagree | 56 | 28.0 | 28.1 | 68.3 |
| | Strongly Disagree | 63 | 31.5 | 31.7 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

The table above illustrates the findings of the study, conducted to determine the underlying principle of the statement made in the current study, of whether a skills shortage exists only in the public sector or in the private sector. Theresults indicate that of the 200 respondents, 24.1% strongly agree that the skills shortage exists in the public sector only and 8.5% agree with the statement. A total of 7.5% are undecided and 28.1% disagree while 31.7% strongly disagree.

**Table 6.30: Respondents' answers regarding a skill shortage in the private sector**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | **A skill shortage exists in the private sector only** | | | | |
| Valid | Strongly Agree | 6 | 3.0 | 3.0 | 3.0 |
| | Agree | 8 | 4.0 | 4.0 | 7.0 |
| | Neutral or Undecided | 28 | 14.0 | 14.1 | 21.1 |
| | Disagree | 75 | 37.5 | 37.7 | 58.8 |
| | Strongly Disagree | 82 | 41.0 | 41.2 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

The table above illustrates the findings of the study conducted to determine the underlying principle of the statement made in the current study, of whether a skills shortage exists only in the public sector or in the private sector as well. The study's findings indicate that of the 200 respondents, 3.0% strongly agree that a skills shortage exists only in the private sector and 4.5% agree with the statement. A total of 14.1% are undecided and 37.7% disagree with 41.2% strongly disagreeing, implying that most of the respondents believe that there is indeed a skills shortage in all areas and sectors as illustrated in the previous table. The balance in the responses indicates that there is indeed a skills shortage in South Africa.

**Table 6.31: Respondents' answers regarding a skill shortage in the construction sector**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | **A skills shortage exists only in the construction sector** | | | | |
| Valid | Strongly Agree | 4 | 2.0 | 2.0 | 2.0 |
| | Agree | 12 | 6.0 | 6.0 | 8.0 |
| | Neutral or Undecided | 27 | 13.5 | 13.5 | 21.5 |
| | Disagree | 75 | 37.5 | 37.5 | 59.0 |
| | Strongly Disagree | 81 | 40.5 | 40.5 | 99.5 |
| | Total | 200 | 100.0 | 100.0 | |

As in the previous table, the primary reason for this statement was to determine whether a skills shortageis moreprevalent in certain areas and if so, inwhich sector? Ofthe 200 respondents, 2.0% strongly agree with the statement and 6.0% agree, which makes a total 8.0%. However, 13.5% are undecided and 37.5% disagree, while 40.5% strongly disagree with the statement. The data illustrated in the tables above shows that the majority of the respondents do not concur with the statement thata skills shortage only exists in a certain area, be it in the private or public sector. The results indicate that it is in all sectors and at all levels.

**Table 6.32: Respondents' answers regarding a skills shortage in the local government sector**

| A skill shortage exists in local government only | | | | |
|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Strongly Agree | 7 | 3.5 | 3.5 | 3.5 |
| | Agree | 15 | 7.5 | 7.5 | 11.1 |
| | Neutral or Undecided | 28 | 14.0 | 14.1 | 25.1 |
| | Disagree | 83 | 41.5 | 41.7 | 66.8 |
| | Strongly Disagree | 66 | 33.0 | 33.2 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

The data illustrated in the table above shows that the majority of the respondents do not concur with the statement thata skill shortage only exists in a certain area, be it in the private or public sector. Instead, the results from the data indicate that it is in all sectors and at all levels. Of the 200 respondents, 3.5% strongly agree with the statement and 7.5% of the respondents agree. 14.1% are undecided and 41.7% disagree, while 33.2% strongly disagree with the statement.

**Table 6.33: Respondents' answers to ascertain the existence of a skill shortage in all sectors**

| A skill shortage exists in all sectors of the economy in the country | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Strongly Agree | 125 | 62.5 | 62.5 | 62.5 |
| | Agree | 46 | 23.0 | 23.0 | 85.5 |
| | Neutral or Undecided | 10 | 5.0 | 5.0 | 90.5 |
| | Disagree | 15 | 7.5 | 7.5 | 98.0 |
| | Strongly Disagree | 3 | 1.5 | 1.5 | 99.5 |
| | Total | 200 | 100.0 | 100.0 | |

Of the 200 respondents 62.5% strongly agree with the statement and 23.0% of the respondent agrees. However, 5.0% are undecided and 7.5% disagree, while 1.5% strongly disagrees with the statement.

**Table 6.34: Respondents' answers regarding the reason for the skill shortages**

| The skill shortage is caused by the perception that there would be war after 1994 and crime | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Strongly Agree | 55 | 27.5 | 27.9 | 27.9 |
| | Agree | 22 | 11.0 | 11.2 | 39.1 |
| | Neutral or Undecided | 77 | 38.5 | 39.1 | 78.2 |
| | Disagree | 33 | 16.5 | 16.8 | 94.9 |
| | Strongly Disagree | 10 | 5.0 | 5.1 | 100.0 |
| | Total | 197 | 98.5 | 100.0 | |
| Missing | System | 3 | 1.5 | | |
| Total | | 200 | 100.0 | | |

The table above demonstrates that of 200 respondents, 27.9% strongly agree with the statement and 11.2% agree. 39.1% are undecided and 16.8% disagree, while 5.1% strongly disagrees with the statement.

**Table 6.35: Respondents'perceptions in relation to unstable political factors being a reason for the skill shortages**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Perceived unstable political factors** | | | | | |
| Valid | Strongly Agree | 52 | 26.0 | 26.5 | 26.5 |
| | Agree | 28 | 14.0 | 14.3 | 40.8 |
| | Neutral or Undecided | 75 | 37.5 | 38.3 | 79.1 |
| | Disagree | 33 | 16.5 | 16.8 | 95.9 |
| | Strongly Disagree | 8 | 4.0 | 4.1 | 100.0 |
| | Total | 196 | 98.0 | 100.0 | |
| Missing | System | 4 | 2.0 | | |
| Total | | 200 | 100.0 | | |

The table above demonstrates that of 200 respondents 26.5% strongly agree with the statement and 14.3% agree. 38.3% are undecided and 16.8% disagree, while 4.1% strongly disagrees with the statement.

**Table 6.36: Respondents' views in relation to affirmative action being the cause of the skills shortage**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| **Affirmative action policy caused the skills shortage** | | | | | |
| Valid | Strongly Agree | 56 | 28.0 | 28.3 | 28.3 |
| | Agree | 23 | 11.5 | 11.6 | 39.9 |
| | Neutral or Undecided | 78 | 39.0 | 39.4 | 79.3 |
| | Disagree | 31 | 15.5 | 15.7 | 94.9 |
| | Strongly Disagree | 8 | 4.0 | 4.0 | 99.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

The table above demonstrates that of 200 respondents, 28.3% strongly agree with the statement that affirmative action caused the skills shortage and 11.6% of the respondents agree. 39.4% are undecided and this shows a balance in the answers,

especially if compared to the undecided, there is no great difference and 15.7% disagree, while 4.0% strongly disagree with the statement.

**Table 6.37: Respondents; current view point regarding a stable environment abroad causing skills shortage**

| Perceived good working conditions and stable environment in other countries | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Strongly Agree | 90 | 45.0 | 45.5 | 45.5 |
| | Agree | 30 | 15.0 | 15.2 | 60.6 |
| | Neutral or Undecided | 18 | 9.0 | 9.1 | 69.7 |
| | Disagree | 35 | 17.5 | 17.7 | 87.4 |
| | Strongly Disagree | 25 | 12.5 | 12.6 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

The table above demonstrates that of 200 respondents, 45.5% strongly agree that perceived good working conditions and a stable environment in other countries causes a skills shortage and 15.2% agree. The findings provide an indication that 9.1% are undecided and this shows a balance in the answers, especially if compared to the undecided. 17.7% disagree, while 12.6% strongly disagree with the statement.

**Table 6.38: Respondents' view of a perceived lack of good working conditions in the country of origin**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| **Perceived lack of good working conditions in the country of origin** | | | | | |
| Valid | Strongly Agree | 66 | 33.0 | 33.2 | 33.2 |
| | Agree | 29 | 14.5 | 14.6 | 47.7 |
| | Neutral or Undecided | 20 | 10.0 | 10.1 | 57.8 |
| | Disagree | 33 | 16.5 | 16.6 | 74.4 |
| | Strongly Disagree | 50 | 25.0 | 25.1 | 99.5 |
| | | | | | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

The table above demonstrates that of 200 respondents 33.2% strongly agree that a perceived lack of good working conditions in countries of origin do cause skills shortages and 14.7% of the respondents agree. The findings provide an indication that 10.1% are undecided and this shows a balance in the answers especially if compared to the undecided. 16.6% disagree, while 25.1% strongly disagree with the statement.

**Table 6.39: Respondents' answers regarding a lack of career guidance and graduate training**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **A lack of career guidance and graduate training** | | | | | |
| Valid | Strongly Agree | 17 | 8.5 | 8.5 | 8.5 |
| | Agree | 15 | 7.5 | 7.5 | 16.1 |
| | Neutral or Undecided | 80 | 40.0 | 40.2 | 56.3 |
| | Disagree | 41 | 20.5 | 20.6 | 76.9 |
| | Strongly Disagree | 46 | 23.0 | 23.1 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

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The table above reveals that of 200 respondents 8.5% strongly agree that a lack of career guidance and graduate training are some of the causes ofthe skills shortage and 7.5% of the respondents agree. The findings provide an indication that 40.2% are undecided and this indicatesa balance in the answers, especially if compared to the undecided. 20.6% disagree, while 23.1% strongly disagree with the statement.

**Table 6.40: Respondents' views regarding skills mismatch in certain sectors as a factor causing the skills shortage**

| Skills mismatch in certain sectors | | | | |
|---|---|---|---|---|
| | | **Frequency** | **Percentage** | **Valid Percentage** | **Cumulative Percentage** |
| Valid | Strongly Agree | 100 | 50.0 | 50.5 | 50.5 |
| | Agree | 35 | 17.5 | 17.7 | 68.2 |
| | Neutral or Undecided | 27 | 13.5 | 13.6 | 81.8 |
| | Disagree | 12 | 6.0 | 6.1 | 87.9 |
| | Strongly Disagree | 24 | 12.0 | 12.1 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

The table above reveals that of 200 respondents 50.5% strongly agree that a skills mismatch is some of the causes of the skills shortage and 17.7% of the respondents agree. The findings provide an indication that 13.6% are undecided and this indicates a balance in the answers. 6.1% disagree, while 12.1% strongly disagree with the statement.

**Table 6.41: Respondents' views regarding the lack of necessary experience**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | **Lack of necessary experience** | | | | |
| Valid | Strongly Agree | 110 | 55.0 | 55.3 | 55.3 |
| | Agree | 45 | 22.5 | 22.6 | 77.9 |
| | Neutral or Undecided | 16 | 8.0 | 8.0 | 85.9 |
| | Disagree | 1 | .5 | .5 | 86.4 |
| | Strongly Disagree | 27 | 13.5 | 13.6 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

The table above reveals that of 200 respondents 55.3% strongly agree that there is a lack of necessary experience and 22.6% of the respondents agree. The findings provide an indication that 8.0% are undecided and 0.5% disagree, while 13.6% strongly disagree with the statement.

**Table 6.42: Respondents' answers in relation to education policies and training**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | **Outdated education policies and training** | | | | |
| Valid | Strongly Agree | 101 | 50.5 | 51.0 | 51.0 |
| | Agree | 32 | 16.0 | 16.2 | 67.2 |
| | Neutral or Undecided | 23 | 11.5 | 11.6 | 78.8 |
| | Disagree | 16 | 8.0 | 8.1 | 86.9 |
| | Strongly Disagree | 25 | 12.5 | 12.6 | 99.5 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

The findings illustrated in the table above reveal that of 200 respondents 51.0% strongly agree that a skills shortage is caused by outdated education policies and training and 16.2% agree. From this, 11.6% are unsure and 8.1% disagree and 12.6%

strongly disagree. The findings allow the perception that the majority of the respondents perceive that outdated policies and training area reason for the skills shortage and have implications for service delivery. These findings are supported by the literature reviewed. The CDE (2007: 11) holds that the skills shortage in South Africa is felt in many different ways, including the anger of township residents who live in unsanitary conditions owing to a lack of engineers from the municipality to do the job.

**Table 6.43: Respondents' current view point on technology**

| Change in technology | | | | | |
|---|---|---|---|---|---|
| | | **Frequency** | **Percentage** | **Valid Percentage** | **Cumulative Percentage** |
| Valid | Strongly Agree | 110 | 55.0 | 55.3 | 55.3 |
| | Agree | 36 | 18.0 | 18.1 | 73.4 |
| | Neutral or Undecided | 19 | 9.5 | 9.5 | 82.9 |
| | Disagree | 10 | 5.0 | 5.0 | 87.9 |
| | Strongly Disagree | 24 | 12.0 | 12.1 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

One of the objectives of this research is to establish the existing skills among refugees and what contribution they make to the socio-economic fabric of the country not forgetting to analyse the impacts of the skills shortage. The table above indicates that of 200 respondents, 55.3% strongly agree that technological changes can be regarded as one of the causes of a skills shortage and 18.1% agree. 9.5% are unsure and 5.0% disagree. 12.1% strongly disagree. These results demonstrate that the majority of the respondents perceive that there are various factors that cause and contribute to a skills shortage or absence of skills amongst the local population.

**Table 6.44: Respondents' answers regarding environmental, social and economic factors causing the shortage of skills**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | **Environmental, social and economic factors** | | | | |
| Valid | Strongly Agree | 64 | 32.0 | 32.2 | 32.2 |
| | Agree | 40 | 20.0 | 20.1 | 52.3 |
| | Neutral or Undecided | 30 | 15.0 | 15.1 | 67.3 |
| | Disagree | 12 | 6.0 | 6.0 | 73.4 |
| | Strongly Disagree | 52 | 26.0 | 26.1 | 99.5 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

One of the objectives of this section of the questionnaire was to establish the existing factors and the root cause that a role in exaggerating or worsening the skills shortage in South Africa. The statement above assumes that environmental, social and economic factors are the reason for the skills shortage in the country. The table above indicates that from a total of 200 respondents, 32.2% strongly agree that environmental, social and economic factors can be regarded as causes of the skills shortage and 20.1% agree. 15.1% are unsure while 6.0% disagree and a total of 26.1% strongly disagree. This indicates that the majority of the respondents perceive that there are various factors causing and contributing to skills shortage or the absence of skills amongst the local population.

**Table 6.45: Respondents' answers regarding a lack of training as a factor that causes a shortage of skills**

| Lack of training | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Strongly Agree | 23 | 11.5 | 11.6 | 11.6 |
| | Agree | 49 | 24.5 | 24.6 | 36.2 |
| | Neutral or Undecided | 59 | 29.5 | 29.6 | 65.8 |
| | Disagree | 15 | 7.5 | 7.5 | 73.4 |
| | Strongly Disagree | 53 | 26.5 | 26.6 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

The table above indicates that from a total of 200 respondents, 11.5% strongly agree that a lack of training can be regarded as one of the contributing factor causing a skills shortage and that 24.6% agree. A total of 29.6% are unsure while 7.5% disagree and a total of 26.6% strongly disagree. This demonstrates that the majority of the respondents perceive that there are various factors causing a skills shortage or an absence of skills amongst the local population.

**Table 6.46: Respondents' responses relating to the recruitment of black graduates**

| Companies are not recruiting enough black graduates | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Strongly Agree | 71 | 35.5 | 36.0 | 36.0 |
| | Agree | 49 | 24.5 | 24.9 | 60.9 |
| | Neutral or Undecided | 20 | 10.0 | 10.2 | 71.1 |
| | Disagree | 15 | 7.5 | 7.6 | 78.7 |
| | Strongly Disagree | 42 | 21.0 | 21.3 | 100.0 |
| | Total | 197 | 98.5 | 100.0 | |
| Missing | System | 3 | 1.5 | | |
| Total | | 200 | 100.0 | | |

The table above indicates that from a total of 200 respondents, 36.0% strongly agree that companies are not recruiting enough black graduates and it can be regarded as one of the contributing factors causing the skills shortage. Not everyone is of the same view and 24.6% agree. A total of 29.6% are unsure while 7.5% disagree and a total of 21.3% strongly disagree. This indicates that the majority of the respondents perceive that there are various factors causing the skills shortage or absence of skills amongst the local population.

**Table 6.47: Respondents' answers regarding the employment of asylum seekers and refugees to alleviate the skills shortage**

| Not employing asylum seekers and refugees leads to a shortage of skills | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Strongly Agree | 61 | 30.5 | 30.7 | 30.7 |
| | Agree | 33 | 16.5 | 16.6 | 47.2 |
| | Neutral or Undecided | 48 | 24.0 | 24.1 | 71.4 |
| | Disagree | 22 | 11.0 | 11.1 | 82.4 |
| | Strongly Disagree | 35 | 17.5 | 17.6 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

The table above indicates that from a total of 200 respondents, 30.7% strongly agree that by not employing asylum seekers and refugees skills shortage will result in South Africa and 16.6% agree. With regard to the statement above, a total of 24.1% are neutral while 11.1% do not agree with the statement and 17.6% strongly disagree. These findings are supported by various authors in the literature that was reviewed. Rasool and Botha (2011:1); the CDE (2010:9) and Richardson (2007:8) hold that a lack of skills limits economic growth and contributes to high levels of unemployment, which could be curbed by the immigrant community.

**Table 6.48: Respondents' answers regarding the impact of HIV/AIDSon the skills shortage**

| HIV and AIDS | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Strongly Agree | 67 | 33.5 | 33.7 | 33.7 |
| | Agree | 53 | 26.5 | 26.6 | 60.3 |
| | Neutral or Undecided | 18 | 9.0 | 9.0 | 69.3 |
| | Disagree | 20 | 10.0 | 10.1 | 79.4 |
| | Strongly Disagree | 41 | 20.5 | 20.6 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

With regards to the statement above, from a total of 200 respondents as shown in Table 6.49, 33.7% strongly agree that HIV and AIDS contributes to the skills shortage and 26.6% only agree with the statement. These findings are supported by various authors in the literature that was reviewed and represents a different view point in terms of the identification of a variety of factors causing the skills shortage. The findings illustrated in the table above indicate that 9.0% of the respondents are neutral regarding the statement and 10.1% of the respondents disagree with 20.6% strongly disagreeing with the statement.

**Table 6.49: Respondents' answers relating to a higher number of South Africans working overseas**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Higher number of South Africans working overseas contributes to the skills shortage** | | | | | |
| Valid | Strongly Agree | 87 | 43.5 | 43.7 | 43.7 |
| | Agree | 56 | 28.0 | 28.1 | 71.9 |
| | Neutral or Undecided | 11 | 5.5 | 5.5 | 77.4 |
| | Disagree | 18 | 9.0 | 9.0 | 86.4 |
| | Strongly Disagree | 27 | 13.5 | 13.6 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

A higher number of South Africans working overseas is often regarded as a phenomenon that contributes to the skills shortages in South Africa. However, the data in the Table 6.50 outlines that of the 200 respondents, 43.7% agree strongly with the statement while 28.1% just agree. Of the remainder, 5.5% are neutral while 9.0% do not agree and 13.6% strongly disagree. The findings in the table clearly indicate that the majority of the respondents of the target population agree with the statement.

**Table 6.50: Respondents' answers regarding increasing the intake at FET Colleges**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Increasing the intake at FET Colleges** | | | | | |
| Valid | Strongly Agree | 122 | 61.0 | 61.3 | 61.3 |
| | Agree | 57 | 28.5 | 28.6 | 89.9 |
| | Neutral or Undecided | 17 | 8.5 | 8.5 | 98.5 |
| | Disagree | 2 | 1.0 | 1.0 | 99.5 |
| | Strongly Disagree | 1 | .5 | .5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

The collected data indicates that of the 200 respondents 61.3% strongly agree that by increasing the intake at FET colleges the country could minimize the problem of skills shortage while 28.6% agree. The data in Table 6.51 indicates that 8.5% are undecided regarding the statement while 1.0%, disagree and, 0.5% of the respondents strongly agree.

**Table 6.51: Respondents' answers regarding placing more people on SETAs**

| Placing more people on SETAs | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Strongly Agree | 117 | 58.5 | 58.8 | 58.8 |
| | Agree | 46 | 23.0 | 23.1 | 81.9 |
| | Neutral or Undecided | 32 | 16.0 | 16.1 | 98.0 |
| | Disagree | 4 | 2.0 | 2.0 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

The collected data indicates that of 200 respondents 58.8% strongly agree that in order to resolve the issue of a skills shortage one should place more people under SETAs while 23.1% agree. The results illustrated in the table indicate that the majority of the respondents perceive that there are various solutions to resolve this problem of a skills shortage. 16.1% are undecided regarding the possible solution suggested on the statement while 2.0% disagree and 58.5% strongly disagree.

**Table 6.52: Respondents' views regarding an integrated response to the skills shortage**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Combining and integrating all government and private initiatives in dealing with skills shortages | | | | | |
| Valid | Strongly Agree | 117 | 58.5 | 58.8 | 58.8 |
| | Agree | 74 | 37.0 | 37.2 | 96.0 |
| | Neutral or Undecided | 6 | 3.0 | 3.0 | 99.0 |
| | Disagree | 1 | .5 | .5 | 99.5 |
| | Strongly Disagree | 1 | .5 | .5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

From a total of 200 respondents 58.8% strongly agree that to resolve the problem of skills shortages there is a need to integrate all government and private initiatives in dealing with the matter while 37.2% agree. However, the results illustrated in the table indicate that 3.0 % are undecided and 0.5% disagrees while the rest 0.5% strongly disagree.

**Table 6.53: Respondents' response relating to an increase in the number of artisans to alleviate the shortage of skills**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Training more people and increasing the number of artisans | | | | | |
| Valid | Strongly Agree | 137 | 68.5 | 69.5 | 69.5 |
| | Agree | 50 | 25.0 | 25.4 | 94.9 |
| | Neutral or Undecided | 7 | 3.5 | 3.6 | 98.5 |
| | Disagree | 2 | 1.0 | 1.0 | 99.5 |
| | Strongly Disagree | 1 | .5 | .5 | 100.0 |
| | Total | 197 | 98.5 | 100.0 | |
| Missing | System | 3 | 1.5 | | |
| Total | | 200 | 100.0 | | |

In relation to government having to increase the number of artisans by training more people to address the critical skills shortage that exists in the country, of 200 participants a total of 69.5% strongly agree that this could be one of the solutions and a practical way to address the shortage of critical skills. 25.4% agree and 3.6% are undecided while 1.0% disagree and the remainder of 0.5% strongly disagree. The finding of the statement above is straightforward and needs no further interpretation.

**Table 6.54: Respondents' responses relating to an increase in the number of people being trained at SETAs as a solution to the shortage of skills**

| Lowering price of FET Colleges and an increase the number of people being trained at SETAs | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Strongly Agree | 89 | 44.5 | 45.2 | 45.2 |
| | Agree | 40 | 20.0 | 20.3 | 65.5 |
| | Neutral or Undecided | 60 | 30.0 | 30.5 | 95.9 |
| | Disagree | 8 | 4.0 | 4.1 | 100.0 |
| | Total | 197 | 98.5 | 100.0 | |
| Missing | System | 3 | 1.5 | | |
| Total | | 200 | 100.0 | | |

When the respondentswere asked whether there should be a link between all parties, namely: private, public and academic institutions to look at ways of tackling the skills shortage, the results indicate that any solution is welcomed and that if it is integrated so much the better. In relation to government having to lower the price of FET colleges and the number of people being trained by the SETAsto address the critical skills shortage that exists in the country, the data in the table above indicates that of 200 participants, 45.2% strongly agree and 20.3% agree. 30.5% were undecided and 4.1% disagree. The findings in the table also give us an indication that respondents support the call for government to engage with various institutions to find solution to the skills shortage and that this could be seen as one of the options to address the shortage of critical skills in the country.

**Table 6.55: Respondents'answers regardingrecruiting non-Africans to alleviate the shortage of skills**

| Recruiting non-Africans | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Strongly Agree | 128 | 64.0 | 64.6 | 64.6 |
| | Agree | 37 | 18.5 | 18.7 | 83.3 |
| | Neutral or Undecided | 18 | 9.0 | 9.1 | 92.4 |
| | Disagree | 12 | 6.0 | 6.1 | 98.5 |
| | Strongly Disagree | 3 | 1.5 | 1.5 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

In order to best address the skills shortage in the country, respondents are of the perception that upgrading the country's educational system is the starting point to a long term solution. They also think that recruiting non-Africans is an adding value to the lasting solution being sought. Of 200 respondents, 64.6% strongly agree with the statement and 18.7% also agree while 9.1% are neutral and 6.1% disagree that non-Africans should be recruited to minimize the problem while 1.5% strongly disagree. The finding illustrated in the table is also supported Brier and Erasmus (2009:1), who blame the skills shortage on the schooling structure, which still fights to overcome decades of neglect and dysfunction under apartheid when the education of black people was of a poor quality.

**Table 6.56: Respondents' responses regarding hiring refugees and asylum seekers to alleviate the shortage of skills**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Hiring refugees and asylum seekers within the country** | | | | | |
| Valid | Strongly Agree | 128 | 64.0 | 64.3 | 64.3 |
| | Agree | 52 | 26.0 | 26.1 | 90.5 |
| | Neutral or Undecided | 9 | 4.5 | 4.5 | 95.0 |
| | Disagree | 9 | 4.5 | 4.5 | 99.5 |
| | Strongly Disagree | 1 | .5 | .5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

In order to best address the skills shortage in the country respondents are of the opinion that hiring refugees and asylum seekers already in the country, could be, alongside previous suggestions, a starting point to a long term solution. This is seen in the table above where of 64.3% of the 200 respondents strongly agree with the statement while 26.1% of the respondents agree. 4.5% are neutral and 4.5% are in disagreement. Theremainder of 0.5% of the respondents strongly disagree that hiring refugees and asylum seekers within the country is a viable solution to the problem of the skills shortage.

**Table 6.57: Respondents' responses regarding poaching skilled people within Africa to alleviate the shortage of skills**

<table>
<tr><th colspan="6">Poaching skilled people within Africa</th></tr>
<tr><th></th><th></th><th>Frequency</th><th>Percentage</th><th>Valid Percentage</th><th>Cumulative Percentage</th></tr>
<tr><td>Valid</td><td>Strongly Agree</td><td>128</td><td>64.0</td><td>64.6</td><td>64.6</td></tr>
<tr><td></td><td>Agree</td><td>37</td><td>18.5</td><td>18.7</td><td>83.3</td></tr>
<tr><td></td><td>Neutral or Undecided</td><td>14</td><td>7.0</td><td>7.1</td><td>90.4</td></tr>
<tr><td></td><td>Disagree</td><td>14</td><td>7.0</td><td>7.1</td><td>97.5</td></tr>
<tr><td></td><td>Strongly Disagree</td><td>5</td><td>2.5</td><td>2.5</td><td>100.0</td></tr>
<tr><td></td><td>Total</td><td>198</td><td>99.0</td><td>100.0</td><td></td></tr>
<tr><td>Missing</td><td>System</td><td>2</td><td>1.0</td><td></td><td></td></tr>
<tr><td>Total</td><td></td><td>200</td><td>100.0</td><td></td><td></td></tr>
</table>

In order to best address the skills shortage in the country respondents are of the opinion that poaching skilled Africans could be the solution and the responses shown in the table above are in line with the previous responses, signalling that the starting point to a long term solution does notrest with only one plan but with a variety of strategies. Of the 200 respondents, 64.6% strongly agree with the statement while 18.7% of the respondents agree, with 7.5% being neutral and 7.1% disagreeing. The remaining 2.5% of the respondents strongly disagree that poaching Africans within the continent is a viable solution for the problem of the skills shortage.

**Table 6.58: Respondents' answers regarding all the above points**

<table>
<tr><th colspan="6">Making use of all the above points</th></tr>
<tr><th></th><th></th><th>Frequency</th><th>Percent</th><th>Valid Percent</th><th>Cumulative Percent</th></tr>
<tr><td>Valid</td><td>Strongly Agree</td><td>84</td><td>42.0</td><td>42.2</td><td>42.2</td></tr>
<tr><td></td><td>Agree</td><td>43</td><td>21.5</td><td>21.6</td><td>63.8</td></tr>
<tr><td></td><td>Neutral or Undecided</td><td>63</td><td>31.5</td><td>31.7</td><td>95.5</td></tr>
<tr><td></td><td>Disagree</td><td>8</td><td>4.0</td><td>4.0</td><td>99.5</td></tr>
<tr><td></td><td>Strongly Disagree</td><td>1</td><td>.5</td><td>.5</td><td>100.0</td></tr>
<tr><td></td><td>Total</td><td>199</td><td>99.5</td><td>100.0</td><td></td></tr>
<tr><td>Missing</td><td>System</td><td>1</td><td>.5</td><td></td><td></td></tr>
<tr><td>Total</td><td></td><td>200</td><td>100.0</td><td></td><td></td></tr>
</table>

In order to best address the skills shortage in the country respondents are of the opinion that the solution and the responses shown on the table above are in line with the previous responses, signalling that the starting point to a long term solution is not one but various strategies performed in an integrated way.Of the 200 respondents, 42.2% strongly agree with the statement while 21.6% of the respondents agree. Meanwhile 31.7% are neutral and 4.0% disagree. Theremainder of 0.5% of the respondents strongly disagree that the solution should be integrated as suggested by making use of all the existing suggestions as viable solutions for the problem of the skills shortage.

**Table 6.59: Respondents' responses in relation to government data collection at the point of entry**

| Government should collect data at the point of entry | | | | |
|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Strongly Agree | 129 | 64.5 | 65.2 | 65.2 |
| | Agree | 44 | 22.0 | 22.2 | 87.4 |
| | Neutral or Undecided | 23 | 11.5 | 11.6 | 99.0 |
| | Disagree | 1 | .5 | .5 | 99.5 |
| | Strongly Disagree | 1 | .5 | .5 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

In order to ascertain and access the validity of the claims regarding the existence of skills amongst refugees, asylum seekers and immigrants, certain suggestions were put forward to respondents and they were asked their point of view. Of the200 respondents, 65.2% strongly agree with the statement that the government should collect data at the entry point and 22.2% of the respondents agree. 11.6% are neutral and an equal number split into 0.5% disagree. The remaining0.5% of the respondents strongly disagrees. This small fraction indicates that they do not believe that government do not need to collect data at the entry point in order to seek to establish if there is some truth in the claim regarding in the existence of skills amongst the designated groups.

**Table 6.60: Respondents' responses about ways of government collecting data on flight**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Government should collect data on the flight** | | | | | |
| Valid | Strongly Agree | 116 | 58.0 | 58.3 | 58.3 |
| | Agree | 60 | 30.0 | 30.2 | 88.4 |
| | Neutral or Undecided | 8 | 4.0 | 4.0 | 92.5 |
| | Disagree | 13 | 6.5 | 6.5 | 99.0 |
| | Strongly Disagree | 2 | 1.0 | 1.0 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

In order to ascertain and access the validity of the claims regarding the existence of skills amongst refugees, asylum seekers and immigrants, certain suggestions were put to respondents and they were asked their point of view regarding what government should do to verify the immigrants' claims with regard to their skills and qualifications. Of the 200 respondents, 58.3% strongly agree with the statement thatthe government should collect data on flight and 30.2% of the respondents agree. 4.0% are neutral and of the remaining respondents, 6.5% disagree and the remaining 1.0% strongly disagree.

**Table 6.61: Respondents' responses about ways that the government can collect data on the immigrants' arrival**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | **Government should collect data on arrival** | | | | |
| Valid | Strongly Agree | 114 | 57.0 | 57.3 | 57.3 |
| | Agree | 70 | 35.0 | 35.2 | 92.5 |
| | Neutral or Undecided | 8 | 4.0 | 4.0 | 96.5 |
| | Disagree | 6 | 3.0 | 3.0 | 99.5 |
| | Strongly Disagree | 1 | .5 | .5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

A number of suggestions were put to respondents in order to ascertain and access the validity of the claims regarding the skills of refugees, asylum seekers and immigrants. The previous two tables were with regard to collecting data at the entry point and another suggested to collect data while on the flight but as the results in this table are about collecting data on arrival. Of the 200 respondents, 57.3% strongly agree with the statement and 35.2% of the respondents agree. 4.0% are neutral and of the remainder, 3.0% disagree0.5% of respondents strongly disagree.

**Table 6.62: Respondents' responses about ways of government collecting data at emigration offices**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Government should collect data at the emigration office when applying for a visa |
| Valid | Strongly Agree | 111 | 55.5 | 55.8 | 55.8 |
| | Agree | 77 | 38.5 | 38.7 | 94.5 |
| | Neutral or Undecided | 6 | 3.0 | 3.0 | 97.5 |
| | Disagree | 2 | 1.0 | 1.0 | 98.5 |
| | Strongly Disagree | 2 | 1.0 | 1.0 | 99.5 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Another suggestion was that the government should collect data at the emigration office when applying for a visa. Of the 200 respondents, 55.8% strongly agree with the statement that the government should collect data at the emigration office and 38.7% of the respondents agree.While 3.0% are neutral and 1.0% disagree and a remaining 1.0% strongly disagree.

**Table 6.63: Respondents' responses about ways of government collecting data when renewing permits**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Government should collect data from those renewing permits |
| Valid | Strongly agree | 114 | 57.0 | 57.6 | 57.6 |
| | Agree | 68 | 34.0 | 34.3 | 91.9 |
| | Neutral or Undecided | 13 | 6.5 | 6.6 | 98.5 |
| | Disagree | 1 | .5 | .5 | 99.0 |
| | Strongly disagree | 2 | 1.0 | 1.0 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 57.6% strongly agree that the government should collect data from those renewing permits, while 34.3% agree with the statement. 6.6% are unsure and0.5% disagree and 1.0% strongly disagree. From the results above one can see how respondents regard the importance of the statement.

**Table 6.64: Respondents' responses about collecting data at receptioncenters**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | **Government should collect data from refugee reception centres** | | | | |
| Valid | Strongly agree | 116 | 58.0 | 58.6 | 58.6 |
| | Agree | 73 | 36.5 | 36.9 | 95.5 |
| | Neutral or Undecided | 5 | 2.5 | 2.5 | 98.0 |
| | Disagree | 2 | 1.0 | 1.0 | 100.0 |
| | Strongly disagree | 2 | 1.0 | 1.0 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 58.6% strongly agree with the statement that the government should collect data from the refugees at the reception centres and offices and 36.9% of the respondents agree. 2.5% are neutral or undecided and 1.0% disagree and the remaining 1.0% of the respondents strongly disagree. This type of statement was made in order to identify the best place to collect reliable data regarding immigrants in general, and to be able to verify the validity of their claims regarding their skills and qualifications.

**Table 6.65: Respondents' responses about government collecting data at universities**

| Government should collect data at universities | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Strongly agree | 117 | 58.5 | 58.8 | 58.8 |
| | Agree | 69 | 34.5 | 34.7 | 93.5 |
| | Neutral or Undecided | 4 | 2.0 | 2.0 | 95.5 |
| | Disagree | 4 | 2.0 | 2.0 | 100.0 |
| | Strongly disagree | 5 | 2.5 | 2.5 | 98.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 58.8% strongly agree with the statement that government should collect data from universities and 34.7% of the respondents agree with 2.0% being neutral or undecided. 2.0% disagree and the remaining 2.5% strongly disagree.

**Table 6.66: Respondents' responses about government collecting data from employers**

| Government should collect data from employers | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Strongly agree | 123 | 61.5 | 62.1 | 62.1 |
| | Agree | 56 | 28.0 | 28.3 | 90.4 |
| | Neutral or Undecided | 8 | 4.0 | 4.0 | 94.4 |
| | Disagree | 9 | 4.5 | 4.5 | 99.0 |
| | Strongly disagree | 2 | 1.0 | 1.0 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 62.1% strongly agree and 28.3% of the respondents agree while 4.0% are neutral or undecided. 4.5% disagree and the remaining 1.0% of respondents strongly disagree.

**Table 6.67: Respondents' position in relation to salary increases and competitiveness**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Increase salaries and competitiveness** | | | | | |
| Valid | Strongly agree | 139 | 69.5 | 69.8 | 69.8 |
| | Agree | 41 | 20.5 | 20.6 | 90.5 |
| | Neutral or Undecided | 12 | 6.0 | 6.0 | 96.5 |
| | Disagree | 6 | 3.0 | 3.0 | 99.5 |
| | Strongly disagree | 1 | .5 | .5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

With regard to the question of what the government should do to attract the skilled people that left the country, retain the existing people andthose entering the country and train those in the country. In order to ascertain the best answers a variety of statements were made and answers were requested from the respondents. Thefirst question was if the government should increase salaries and competitiveness.

Of the 200 respondents, 69.8% strongly agree with the statement and 20.6% of the respondents agree while 6.0% are neutral or undecided and 3.0% disagree and the remaining0.5% of the respondents strongly disagree.

**Table 6.68: Respondent'viewsregarding improved working conditions and safety**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Government should improve working conditions and safety** | | | | | |
| Valid | Strongly agree | 120 | 60.0 | 60.3 | 60.3 |
| | Agree | 56 | 28.0 | 20.3 | 90.4 |
| | Neutral or Undecided | 3 | 1.5 | 1.5 | 100.0 |
| | Disagree | 12 | 6.0 | 6.0 | 95.5 |
| | Strongly disagree | 8 | 4.0 | 4.0 | 94.4 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 60.3% strongly agree with the statement that government should improve working conditions and safety to attract those that left the country and the new ones entering while 20.3% of the respondents agree. 1.3% are neutral or undecided and of the 6.0% disagree and the last4.0% strongly disagree.

**Table 6.69: Respondent; views regarding improved working benefits**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Government should improve the benefits at work** | | | | | |
| Valid | Strongly agree | 116 | 58.0 | 58.6 | 58.6 |
| | Agree | 73 | 36.5 | 36.9 | 95.5 |
| | Neutral or Undecided | 4 | 2.0 | 2.0 | 100.0 |
| | Disagree | 4 | 2.0 | 2.0 | 100.0 |
| | Strongly disagree | 1 | .5 | .5 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents 58.6% strongly agree with the statement that the government should improve benefits at work to attract those that left the country and the new ones

entering while 36.9% of the respondents agree. 2.0% are neutral or undecided and 2.0% disagree with0.5% of the respondents strongly disagreeing.

**Table 6.70: Respondent 'views on what the government should to train, retain, and employ**

| Government should create policies to train, recruit, retain and employ | | | | | |
|---|---|---|---|---|---|
| | | **Frequency** | **Percentage** | **Valid Percentage** | **Cumulative Percentage** |
| Valid | Strongly agree | 138 | 69.0 | 69.0 | 69.0 |
| | Agree | 52 | 26.0 | 26.0 | 95.0 |
| | Neutral or Undecided | 8 | 4.0 | 4.0 | 99.0 |
| | Disagree | 1 | .5 | .5 | 99.5 |
| | Strongly disagree | 1 | .5 | .5 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |

Of the 200 respondents, 69.0% strongly agree with the statement that the government should create policies to train, recruit, retain and employ those that left the country and those entering while 26.0% of the respondents agree. 4.0% of are neutral or undecided and0.5% disagree and the remaining 0.5% of the respondents strongly disagree.

**Table 6.71: Respondents' views on the government amending policies andcoordinating withthe private sector**

| Government should amend existing policies and coordinate efforts with the private sector | | | | | |
|---|---|---|---|---|---|
| | | **Frequency** | **Percentage** | **Valid Percentage** | **Cumulative Percentage** |
| Valid | Strongly agree | 123 | 61.5 | 62.1 | 62.1 |
| | Agree | 56 | 28.0 | 28.3 | 90.4 |
| | Neutral or Undecided | 8 | 4.0 | 4.0 | 94.4 |
| | Disagree | 9 | 4.5 | 4.5 | 99.0 |
| | Strongly disagree | 2 | 1.0 | 1.0 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 62.1% strongly agree with the statement that the government should create policies to train, recruit, retain and employ those that left the country and those entering while 28.3% of the respondents agree. 4.0% are neutral or undecided and 4.5% disagree with theremaining 1.0% of the respondents strongly disagreeing.

**Table 6.72: Respondent 'viewsregarding using all the above options to curb the skills shortage**

| Government should do all the above | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Strongly agree | 147 | 73.5 | 74.2 | 74.2 |
| | Agree | 47 | 23.5 | 23.7 | 98.0 |
| | Neutral or Undecided | 2 | 1.0 | 1.0 | 99.0 |
| | Disagree | 1 | .5 | .5 | 99.5 |
| | Strongly disagree | 1 | .5 | .5 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the200 respondents, 74.2% strongly agree with the statement that the government should integrate and coordinate all the policies in a consistent manner by including all possible solutions while 23.7% of the respondents agree. 1.0% are neutral or undecided and0.5% disagree.0.5% of the respondents strongly disagree.

**Table 6.73: Respondents' positions regarding the role of immigrants in creating business and jobs**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Immigrants create business and jobs** | | | | | |
| Valid | Strongly agree | 178 | 89.0 | 89.4 | 89.4 |
| | Agree | 20 | 10.0 | 10.1 | 99.5 |
| | Neutral or Undecided | 12 | 6.0 | 6.0 | 95.5 |
| | Disagree | 8 | 4.0 | 4.0 | 99.8 |
| | Strongly Disagree | 1 | .5 | .5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

This section was created with the intention of gathering the views of the respondents in relation to their perceptions regarding the socio-economic contribution of immigrants, refugees and asylum seeker in South Africa. And it was very clear from the responses that most people recognize the role these peopleperform in the economy of the country. There were no mixed views amongst the respondents.

Of the 200 respondents, 89.4% strongly agree with the statement that immigrants create businesses and jobs while 10.1% of the respondents agree. 6.0% were neutral or undecided and 4.0% disagree.0.5% of the respondents strongly disagrees.

**Table 6.74: Respondents' positions regarding the role of immigrants in bringing new skills into the country**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Immigrants bring new skills into the country** | | | | | |
| Valid | Strongly agree | 174 | 87.0 | 87.4 | 87.4 |
| | Agree | 16 | 8.0 | 8.0 | 85.9 |
| | Neutral or Undecided | 3 | 1.5 | 1.5 | 99.5 |
| | Disagree | 5 | 2.5 | 5.5 | 74.7 |
| | Strongly disagree | 1 | .5 | .5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 87.4% strongly agree with the statement that immigrants bring new skills into the country while 8.0% of the respondents agree. 1.5% are neutral or undecided and 5.5% disagree. The remainder of 0.5% of the respondents strongly disagree.

**Table 6.75: Respondents' positions regarding their role in the social fabric of the country**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Immigrants change the social fabric of the country** | | | | | |
| Valid | Strongly agree | 178 | 89.0 | 89.9 | 89.9 |
| | Agree | 10 | 5.0 | 5.0 | 87.9 |
| | Neutral or Undecided | 3 | 1.5 | 1.5 | 99.5 |
| | Disagree | 1 | .5 | .5 | 100.0 |
| | Strongly disagree | 6 | 3.0 | 3.0 | 99.9 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 89.9% strongly agree with the statement that immigrants change the social fabric of the country while 5.0% of the respondents agree. 1.5% are

neutral or undecided and0.5% disagree. The remaining 3.0% of the respondents strongly disagree.

**Table 6.76: Respondents' positions regarding the role of immigrants in the economy by paying tax**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | Immigrants contribute by paying tax | | | | |
| Valid | Strongly agree | 147 | 73.5 | 74.2 | 74.2 |
| | Agree | 47 | 23.5 | 23.7 | 98.0 |
| | Neutral or Undecided | 2 | 1.0 | 1.0 | 99.0 |
| | Disagree | 1 | .5 | .5 | 99.5 |
| | Strongly disagree | 1 | .5 | .5 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 74.2% strongly agree with the statement that immigrants do indeed contribute to the economy of the country, not only by creating jobs or bringing in new skills but also through tax payments. 23.7% of the respondents agree and 1.0% were neutral or undecided0.5% disagree and0.5% of the respondents strongly disagree.

**Table 6.77: Respondents; positions regarding the immigrant's contribution in paying tax**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | The immigrants contribute by paying tax | | | | |
| Valid | Strongly agree | 166 | 83.0 | 83.4 | 83.4 |
| | Agree | 31 | 15.5 | 15.6 | 99.0 |
| | Disagree | 2 | 1.0 | 1.0 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | | 100.0 | | |

Of the 200 respondents, 83.4% strongly agree that immigrants do contribute by paying tax into the country economy and this is clearly represented by the majority that as shown in the table above. However, 15.6% of the respondent's concordance with the majority do agree and think that immigrant does contribute by paying tax to the host country and this is seen by the number of people who agree mean while only 1.0% of the enquired Disagree.

**Table 6.78: Type of information government should request from new arrivals**

| The reason for leaving your country | | | | |
|---|---|---|---|---|
| | | **Frequency** | **Percentage** | **Valid Percentage** | **Cumulative Percentage** |
| Valid | Yes | 173 | 86.5 | 87.8 | 87.8 |
| | No | 7 | 3.5 | 3.6 | 91.4 |
| | Not sure | 16 | 8.0 | 8.1 | 99.5 |
| | Total | 197 | 98.5 | 100.0 | |
| Missing | System | 3 | 1.5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondentsenquired, 87.8% said yes that immigrants should tell the government why they left their country. As shown in the table above. However, 3.5% of the respondents contrary to the majority think that immigrant does not that the reason for immigrants leaving their country of origen is not necessary while another 8.1% of the enquired are undecided or uncertain.

**Table 6.79: Type of information government should request from new arrivals**

| The point of entry | | | | |
|---|---|---|---|---|
| | | **Frequency** | **Percentage** | **Valid Percentage** | **Cumulative Percentage** |
| Valid | Yes | 188 | 94.0 | 94.5 | 94.5 |
| | No | 11 | 5.5 | 5.5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

In this section of the study the intention was to establish what type of information immigrants should supply to the South African Government upon arrival in the country in order to facilitate skills coordination and capturing the relevant information that will help labour and home affairs in dealing with immigrants, including the kind of people entering and the skills they bring with them. Theresults revealed what the target population feels is the necessary information.

Of the200 respondents, 94.5% agree that the government should know the entry point into the host country, in this case South Africa and this is clearly represented by the majority that said yes as shown in the table. However, 5.5% of the respondents think that is not necessary to divulge this type of information and this is seen by the number of people who said no. There were no neutral or undecided respondents.

**Table 6.80: Type of information the government should ask in relation to the mode oftransport**

| Mode of transportation used | | | | |
|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Yes | 183 | 91.5 | 92.4 | 92.4 |
| | No | 15 | 7.5 | 7.6 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 92.4% agree that the government should know the mode of transport used from their home country to South Africa and this is clearly represented by the majority that said yes as shown in the table. 7.6% of the respondents think that it is not necessary to divulge this type of information and this is seen by the number of people who said no. There were no neutral or undecided respondents.

**Table 6.81: Type of information government should ask in relation to Religion and political affiliation**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | Religion and Political affiliation | | | | |
| Valid | Yes | 171 | 85.5 | 86.8 | 86.8 |
| | No | 25 | 12.5 | 12.7 | 99.5 |
| | Not sure | 1 | .5 | .5 | 100.0 |
| | Total | 197 | 98.5 | 100.0 | |
| Missing | System | 3 | 1.5 | | |
| Total | | 200 | 100.0 | | |

Of the200 respondents, 86.8% agree that the government should know their political affiliation and this is clearly represented by the majority that said yes as shown in the table. 12.7% of the respondents think that it is not necessary to divulge this type of information and this is seen by the number of people who said no0.5% were neutral or undecided.

**Table 6.82: Type of information the government should ask in relation to education**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | Level of education | | | | |
| Valid | Yes | 186 | 93.0 | 94.4 | 94.4 |
| | No | 11 | 5.5 | 5.6 | 100.0 |
| | Total | 197 | 98.5 | 100.0 | |
| Missing | System | 3 | 1.5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 94.4% agree that the government should know the level of education of the people coming into the country. 5.6% of the respondents think that it is not necessary to divulge this type of information.There wereno undecided or neutral respondents.

**Table 6.83: Information the government should ask in relation to working experience**

| Work experience | | | | | |
| --- | --- | --- | --- | --- | --- |
| | | **Frequency** | **Percentage** | **Valid Percentage** | **Cumulative Percentage** |
| Valid | Yes | 187 | 93.5 | 94.9 | 94.9 |
| | No | 10 | 5.0 | 5.1 | 100.0 |
| | Total | 197 | 98.5 | 100.0 | |
| Missing | System | 3 | 1.5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 94.9% agree that the government should know the work experience of the people coming into the country; 5.1% of the respondents think that the information is not necessary.There wereno undecided or neutral respondents.

**Table 6.84: Information the government should ask in relation to other skills**

| Other skills | | | | | |
| --- | --- | --- | --- | --- | --- |
| | | **Frequency** | **Percentage** | **Valid Percentage** | **Cumulative Percentage** |
| Valid | Yes | 190 | 95.0 | 95.5 | 95.5 |
| | No | 9 | 4.5 | 4.5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 95.5% agree that the government should know the work experience other skills their might possess when entering the country; 4.5% of the respondents thinks that is not necessary.There wereno undecided respondents.

**Table 6.85: Government should ask for information related to the language spoken**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Language spoken | | | | | |
| Valid | Yes | 186 | 93.0 | 93.5 | 93.5 |
| | No | 13 | 6.5 | 6.5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 93.5% agree that the government should know the languages they speak6.5% of the respondents thinks that it is not necessary. Therewere no undecided respondents.

**Table 6.86: Information regarding the use of refugee and immigrant skills**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Refugees, asylum seekers andimmigrants' skills are used to full potential | | | | | |
| Valid | Yes | 76 | 38.0 | 38.2 | 100.0 |
| | No | 123 | 61.5 | 61.8 | 61.8 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 61.8% disagree that refugees and immigrants' skills are used to full potential to address the skills shortage38.2% of the respondents think that immigrant's skills are being used to their full potential.

**Table 6.87: Government awareness of the existing skills**

| Government is not aware of existing skills amongst refugees, asylum seekers and immigrants | | | | |
|---|---|---|---|---|
| | **Frequency** | **Percentage** | **Valid Percentage** | **Cumulative Percentage** |
| Valid        Yes | 139 | 69.5 | 69.8 | 69.8 |
| No | 60 | 30.0 | 30.2 | 100.0 |
| Total | 199 | 99.5 | 100.0 | |
| Missing    System | 1 | .5 | | |
| Total | 200 | 100.0 | | |

Of the 200 respondents, 69.8% said yes showing an agreement with the statement and 30.2% of the respondents disagreed with the statement.

**Table 6.88: Government awareness regarding the magnitude ofexisting skills**

| Government awareness regarding the magnitude of the skills shortage | | | | |
|---|---|---|---|---|
| | **Frequency** | **Percentage** | **Valid Percentage** | **Cumulative Percentage** |
| Valid        Yes | 153 | 76.5 | 77.3 | 77.3 |
| No | 45 | 22.5 | 22.7 | 100.0 |
| Total | 198 | 99.0 | 100.0 | |
| Missing    System | 2 | 1.0 | | |
| Total | 200 | 100.0 | | |

Of the 200 respondents, 77.3% said yes while 22.7% of the respondents disagreed with the statement.

**Table 6.89: Response regarding the non-existence of reliable government data**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Government has reliable data regarding the skills shortage** | | | | | |
| Valid | Yes | 126 | 63.0 | 63.6 | 63.6 |
| | No | 70 | 35.0 | 35.4 | 99.0 |
| | Not sure | 1 | .5 | .5 | 99.5 |
| | | | . | | |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 3 | 1.5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 63.6% said yes while 35.4% of the respondents disagreed with the statement. 0.5% of the respondent are unsure.

**Table 6.90: Respondents' views relating to the skills of immigrants**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Refugees, asylum seekers and immigrants possess the necessary skills** | | | | | |
| Valid | Yes | 155 | 77.5 | 78.3 | 78.3 |
| | No | 43 | 21.5 | 21.7 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 78.3% said yesin agreement with the statement and 21.7% of the respondents disagreed with the statement.

**Table 6.91: Respondents' views relating to the socio-economic impact of the skills shortage**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| | **Skills shortage has a socio-economic impact** | | | | |
| Valid | Yes | 194 | 97.0 | 97.5 | 97.5 |
| | No | 5 | 2.5 | 2.5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

From a total of 200 respondents, 97.5% agreed and 2.5% disagreed.

**Table 6.92: Respondents' views relating to the impact of the skills shortage on service delivery**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| | **Skills shortage contributes to a lack of adequate service** | | | | |
| Valid | Yes | 186 | 93.0 | 93.5 | 93.5 |
| | No | 13 | 6.5 | 6.5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 93.5% agreed and 6.5% disagreed. Regarding the question posed to them.

**Table 6.93: Government response to mitigate the skills shortage by using skilled immigrants**

| The country should look amongst the refugees, asylum seekers and immigrants to find alternative for the skills shortage | | | | |
|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Yes | 173 | 86.5 | 87.4 | 87.4 |
| | No | 25 | 12.5 | 12.6 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

In relation to the statement regarding the government looking into the immigrant community and asylum seekers as an alternative for the skills shortage in South Africa, the results in the table above reveals that of 200 respondents, 87.4% of them agree that it should have been done by the government in order to minimize the skills shortage while the remainder of 12.6% of the respondents disagreed that government should seek amongst the refugees and asylum seekers for alternatives for the skills shortage.

**Table 6.94: Respondents' views in relation to government policies to halt the brain drain**

| The country has policies and initiatives to deal with the brain drain | | | | |
|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Yes | 154 | 77.0 | 78.6 | 78.6 |
| | No | 42 | 21.0 | 21.4 | 100.0 |
| | Total | 196 | 98.0 | 100.0 | |
| Missing | System | 4 | 2.0 | | |
| Total | | 200 | 100.0 | | |

The results in the table above reveal that of the 200 respondents, 78.6% agree that the country has policies and initiatives to deal with the brain drain although some may criticize the lack of coordination and integration of the policies and initiatives, the reality is that the majority of the respondent agree that they do exist. 21.4% of the respondents disagreed with the statement, maybe due to a lack of information and

knowledge about the existence of such policies. Although it is in synch with several governmentalinitiatives, a number of them do not last and their effects are short lived.

**Table 6.95: Responses related to the private sector's role in dealing with the skills shortage**

| Is the private sector doing enough to deal with skills shortages | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Yes | 101 | 50.5 | 51.0 | 51.0 |
| | No | 97 | 48.5 | 49.0 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

There is divided opinion and perception regarding the role of the private sector in dealing with the issue of skills shortages in South Africa and whether they are doing enough. As can be seen from the results in the table above, of 200 respondents, 51.0% of them said yes, the private sector is doing enough to deal with skills shortages while on the other hand 49% said no to the statement. Although there is a difference of opinion it is slight.

**Table 6.96: Respondents' position regarding government and private sector coordination**

| Government and private initiatives are coordinated to avoid redundancies and waste | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Yes | 92 | 46.0 | 46.2 | 46.2 |
| | No | 106 | 53.0 | 53.3 | 99.5 |
| | Not sure | 1 | .5 | .5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

The results in the table above reveal that of 200 respondents, 46.2% say yes, agreeing that government and private sector should coordinate efforts to avoid redundancies and waste. 53.3% of the respondents said no, showing disagreement with the

statement, while another 0.5% are not sure and refused to comment. According to the facts on the table, the respondents have a perception that the government and the private sector are not coordinated, indicating that citizens are aware of the problems so it becomes a national preoccupation.

**Table 6.97: Respondents' point of view regarding the country's education**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Is the education system synchronized with the need of the country** | | | | | |
| Valid | Yes | 80 | 40.0 | 40.4 | 40.4 |
| | No | 117 | 58.5 | 59.1 | 99.5 |
| | Not sure | 1 | .5 | .5 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

In relation to the question regarding the synchronization of education and the need of the country in terms of skills, the results in the table above reveal that of 200 respondents, 40.4% agreed that the government should be more open about the skills shortage on television channels and radio programmes. 5% of the respondents are unsure while another 59.1%. Said no. In general it shows that the majority do not agree with the statement. In reality our education system does not cater for the country's needs and as a result we cannot produce the skills we need. The results shown in the tableindicate that the people are not satisfied with the situation.

**Table 6.98: Role of refugees in the brain drain phenomenon**

| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| **Refugees, asylum seekers and immigrants can perform a meaningful role in the brain drain phenomenon** | | | | | |
| Valid | Yes | 145 | 72.5 | 73.2 | 73.2 |
| | No | 52 | 26.0 | 26.3 | 99.5 |
| | Not sure | 1 | .5 | .5 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 73.2% said yes to the question and 26.3% of the respondent said no. while .5 were not sure regarding the role of refugee on the brain drain phenomenon.

**Table 6.99: Respondents' views regarding the winners and losers of brain drain**

| Citizens leave the country of origin work in South Africa the host country wins | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Yes | 144 | 72.0 | 72.4 | 72.4 |
| | No | 54 | 27.0 | 27.1 | 99.5 |
| | Not sure | 1 | .5 | .5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 72.4% agreed with the statement and 27.1% of the respondents disagreed.

**Table 6.100: Respondents replay in relation to the short term winners of migration**

| Citizens leave the country of Origin go work in South Africathe country of Origin win in long term | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Yes | 139 | 69.5 | 69.8 | 69.8 |
| | No | 60 | 30.0 | 30.2 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 69.8% agreed that when citizens leave the country of Origen to work elsewhere the destination country wins in the short term. 30.2% of the respondents disagree with the statement.

**Table 6.101: Respondents' views regarding who gains when they receive migrants in the long term**

| When a citizen leaves his country of origin to work in South Africa, the host country gains in the long term | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Yes | 128 | 64.0 | 64.3 | 64.3 |
| | No | 71 | 35.5 | 35.7 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 64.3% agreed that when a citizen leaves the country of origin to work elsewhere South Africa wins in the long term. 35.7% of the respondents said no to the same question.

**Table 6.102: Respondents' views regarding whether the destination country loses in the long term**

| When a citizen leaves his country to work in South Africa the destination country loses in the long term | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Yes | 117 | 58.5 | 59.1 | 59.1 |
| | No | 80 | 40.0 | 40.4 | 99.5 |
| | Not sure | 1 | .5 | .5 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 59.1% of respondents agreed 40.4% of the respondents are in disagreement and 0.5% are unsure regarding the statement.

**Table 6.103: Respondents' views in relation to the benefit for both countries in the long term**

| A citizen leaves the country of originto work elsewhere  both countries gain in the long term | | | | | |
|---|---|---|---|---|---|
| | | **Frequency** | **Percentage** | **Valid Percentage** | **Cumulative Percentage** |
| Valid | Yes | 153 | 76.5 | 78.1 | 78.1 |
| | No | 42 | 21.0 | 21.4 | 99.5 |
| | Not sure | 1 | .5 | .5 | 100.0 |
| | Total | 196 | 98.0 | 100.0 | |
| Missing | System | 4 | 2.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 78.1% agreed that when a citizen goes abroad to seek work both countries stand to gain. 21.4% of the respondents disagree with the statement and0.5% are unsure.

**Table 6.104: Respondents' views regarding the long term benefitsofremittance**

| A citizen leaves the country to work elsewhere and the country of origin wins via remittance | | | | | |
|---|---|---|---|---|---|
| | | **Frequency** | **Percentage** | **Valid Percentage** | **Cumulative Percentage** |
| Valid | Yes | 186 | 93.0 | 93.5 | 93.5 |
| | No | 13 | 6.5 | 6.5 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 93.5% agreed with the statement and 6.5% of respondents disagreed.

**Table 6.105: Respondents' views in relation to the new knowledge benefitting the host country**

| A citizen leaveshis country of origin and the country of destination wins via the acquisition of new knowledge | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Yes | 189 | 94.5 | 97.4 | 97.4 |
| | No | 5 | 2.5 | 2.6 | 100.0 |
| | Total | 194 | 97.0 | 100.0 | |
| Missing | System | 6 | 3.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 97.4% agreed with the statement and 2.6% disagreed.

**Table 6.106: Respondents' views regarding the destination country benefitting via knew qualifications**

| A citizen leaves his country to work elsewhere and the country of origin wins via the transference of new knowledge and the acquisition of qualifications | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Yes | 189 | 94.5 | 95.5 | 95.5 |
| | No | 9 | 4.5 | 4.5 | 100.0 |
| | Total | 198 | 99.0 | 100.0 | |
| Missing | System | 2 | 1.0 | | |
| Total | | 200 | 100.0 | | |

Of the 200 respondents, 95.5% agreed that when a citizen leaves the country of origin to work elsewhere, the country of origin wins via the transference of new knowledge and the acquisition of qualifications. 4.5% of the respondents disagreed with the statement.

**Table 6.107: Respondents' views with regard to the country of origin benefitting from foreign reserves**

| Citizens leave the country to work elsewhere and the country of origin wins by accumulating foreign reserves | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Yes | 170 | 85.0 | 85.4 | 85.4 |
| | No | 29 | 14.5 | 14.6 | 100.0 |
| | Total | 199 | 99.5 | 100.0 | |
| Missing | System | 1 | .5 | | |
| Total | | 200 | 100.0 | | |

It is clear from onset that there are no mixed views amongst the respondents regarding the statement. As per the results in the previous tableit is clear that there is a concordance with the current statement. As the results in Table:6.101 illustrate that from a group of 200 respondents, 85.4% agreed that when acitizen leaves the country to work elsewhere, the country of origin wins by accumulating foreign reserves. However, 14.6% of the respondents disagree with the statement made by the researcher. In summary, it is clear from the response that the vast majority is in accordance with the statement made above.

**Table 6.108: Respondents' view regarding the benefits of migration for South Africa**

| South African citizen goto work abroad the country of origin wins via transference of modern technology sent home | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
|---|---|---|---|---|---|
| Valid | Yes | 188 | 94.0 | 94.0 | 94.0 |
| | No | 12 | 6.0 | 6.0 | 100.0 |
| | Total | 200 | 100.0 | 100.0 | |

When asked their point of view regarding the statement about what happens when citizens leave the country to work elsewhere, the country of origin wins via transference of new technology sent home, a clear pattern forms from the responses given by the respondents that is in line with the previous response. The illustrations

from the table above indicate that out of the 200 respondents 94.0% agree with the statement and 6.0% disagree.

**Table 6.109: Respondents view regarding the benefits for the host country**

| South African citizens goto work elsewhere and the country of origin wins via the exchange of knowledge | | | | |
|---|---|---|---|---|
| | | Frequency | Percentage | Valid Percentage | Cumulative Percentage |
| Valid | Yes | 189 | 94.5 | 95.9 | 95.9 |
| | No | 8 | 4.0 | 4.1 | 100.0 |
| | Total | 197 | 98.5 | 100.0 | |
| Missing | System | 3 | 1.5 | | |
| Total | | 200 | 100.0 | | |

Table 6.103 deals with the issue related to citizens leaving the country to work elsewhere and the benefit it brings in the form of the country of origin winning via an exchange of knowledge. When asked about their opinion regarding the issue mentioned in the statement, from a total of 200 respondents, 95.9% agreed that the country of origin benefits through an exchange of knowledge. 4.1% disagree.

## 6.8    CHAPTER SUMMARY

This chapter provided two main areas of focus. The first was to present the research instruments that were used for data codificationthat pertained to the impact of brain drain and to establish the existence of skills among refugees. The second objective of this chapter was to present the data collected and analyse the results thereof. The methodologies and purpose of the study were all placed in a central position by testing their relevance and eventual reliability, in respect of the study. The following chapter deals with the Normative Model design.

# CHAPTER SEVEN

## A NORMATIVE MODEL FOR REVERSING, ATTRACTING, RETAINING AND OBTAINING DATA RELATED TO REFUGEE SKILLS

### 7.1    INTRODUCTION

This study forms part of a greater migration study, to understand its advantages and disadvantages but primarily to assess whether African immigrants in South Africa have the skills that the country needs to stem the effects of the brain drain. This study is a part of a Doctoral study atthe Cape Peninsula University of Technology in the Western Cape area, where a report is to be produced and a model designed totrain, retain, attract, develop and return skilled South Africans in order to turn brain drain into brain gain.

For an appropriate response to be created it is necessary for a coordinated effort of all the stakeholders, including the ministry of higher education in conjunction with universities,homeaffairs, thenational research foundation, the labour department and a unique and global network of South Africans abroad. The focus has been shifted and the monitoring of migration is envisaged to be executed at a local municipal level.This document would be made accessible to the cabinet minister's office, policy makers, legislators and heads of the three spheres of government.

After the research design and methodology have been decided, practical steps should be taken to acquire the targeted group and evaluate the questionnaire and ascertain if they have the skills necessary for the country and if they contribute economically and socially. The data collected will help to understand the phenomenon. The model will help to profile Africans living here in general and provide enough information to design the model. This would be used to consolidate norms and networks to influenceand correct negative behaviour towards skilled African immigrants, induce other states to change their focus on skills development, redefine interests and work together to overcome their constraints.

The issue here has to do with the capacity to implement and manage willingness, rather than purely one of procedure.  A model is necessary to serve as the base for government,capacity    building,    training,developing,attracting    and    retaining

skilledpeople and policy implementers, the installation of appropriate systems and vigorous monitoring of who enters with what skills, are all essential factors for a viable system.

While the framework will help regulate and make dataregarding the much needed skills for the country accessible and coordinate the intergovernmental and interdepartmental relationships and bring greater clarity to the process. To justify this position, we need to examine South Africa and its evolutionary nature as a yardstick for facilitating a more permanent intervention to the problem of brain drain, priority skills development and acquisition in the country. Governments have tried to create conditions to reverse the flow of outmigration causing brain drain through theimplementation ofnew contracts, scholarships, government policies and several other methods.

 Various countries have experienced the same problems of brain drain and a number of countries have used three methods of implementing and enhancing reverse brain drain through governments retaining their students, encouraging students to pursue tertiary studies abroad and promoting them to return, and engaging with the Diasporas, which will encourage expatriates to remit savings, act as bridges for foreign investment and trade and facilitate the transfer of skills and knowledge. South Korea's reverse brain drain was different from the social phenomenon because it was based on an organized government effort with various policies and had political support. India is one of the first countries where the phenomenon of reverse brain drain occurred.

Previously, India was well known for being the country where numerous information technology students left for America for a better education and greater employment opportunities. Previously, Taiwan had experienced a loss of more than 80 percent of its students who had completed their graduate studies in the United States, but the government of the Republic of China (ROC) responded to this to increase the return migration of the students.

Before we examine the possibility ofa viable model within the context of globalisation, it would be prudent to first familiarise ourselves with global initiatives aimed at eradicating poverty and underdevelopment in poor counties, which have a direct implication on political instability, unprecedented economic downturns and brain drain. Skills training, skills acquisition, skills development and skills retention, and skills

return ('the five big S).  More vigorous research was conducted to examine a modest form of implementation.

- **Skills Training**

The country might train people but the question is whether it is enough and sometimes we train more in areas that are not short ofskills. The training should be according to the needs of the country and its specification, from short courses, artisans with highly qualified skills and adjusting language in accordance to the need of the people and practical experience.

- **Skills Acquisition**

Many regional governments are facilitating skills acquisition in the region. The scale at which it occurs may be questionable, especially when only relatives and friends of state officials have real access to government scholarships.

- **Skills Development**

Acquisition of a single skill is no longer profitable in the changing global economic conditions. Multi-skilling is the route to take, especially in trades and professions that require a chain of technical interventions until the finished products are achieved.

- **Skills Retention**

It is not sufficient to provide quality education and financial support for students and ensure their absorption into the mainstream economy by virtue of their academic performances. The degree of remuneration is pretentiously hacked away by income taxes and unreliable local financial systems, including social illnesses that aremajor contributors of brain drain. Conditions of employment must be of an internationally competitive level.

- **Skills Return**

Governments' officials are known to pay lip service in most cases when asking skilled Africans living abroad to return. Many of them are caught between personal greed and favouritism. In such administrations, development is always obscured. Some experts

living abroad may be tempted to return only to find that internet access is expensive andslow and the electricity supply is unpredictableand professional obligations may not be met on time. In addition to unreliable national financial systems, as endless queues can be found in every bank and post office, and there is no guarantee that they will get back their monies deposited in the banks.

The way and manner in which national departments (Home Affairs, Labour,Higher Education and science andtechnology), together with their provincial counterparts, perceive their roles in the current skills depletion crisis is relevant for addressing this challenge. It will reveal the extent of determination to commit time and resources. A temporary solution will be advocating for policy of 'accommodation', which does not necessarily suggest constitutional amendments to pave the way for respective organs of state to develop their own specific Acts to permanently put to rest the question of skills shortages in the national economy

(Levy, 2001:84; Wright, 1988:14). During the 1980s, intergovernmental relations became a widely used and commonly recognised term. Yet, it still represents a rather specialised, somewhat mysterious, and often perplexing area for many public officials and citizens alike.

The basic criteria for the development of a normative model aimed atacquisition, training, retention, development and return system that can initially be used in the Western Cape but serves for the wholecountry. According to Andersson and Holmberg (1978:343-345), a model is not the real world, but merely a human construction to help understand "real world systems" better. It could appear in many shapes, sizes and styles.

Thompson (1995:483) described a model differently from the above definition in a way that a model was considered a hypothetical description of a complex entity or process. Generally, all models have an information input, an information processor and an output of expected results.

Data presented and analysed in Chapter Seven was interpreted and discussed, and data collected during the literature review, as well as certain inferences taken from the empirical survey, were used as points of departure for the design ofa normative model

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aimed at acquisition,training,retention, development and return systems to obtain the skills needed in the country, for the government to take advantage of the existing skills, attracting others, retaining the existing and training new ones to improvement service delivery.

## 7.2     BACKGROUND TO THE WESTERN CAPE

The Western Cape comprises 5district municipality,24 local municipalities, and the Unicity. The model will be developed for the whole country and initially, for the Western Cape and its local municipalities, which will be solely responsible for the implementation of the model initially. The migration information that the central and local municipalities have gathered regardingmigration within the Western Cape will then be submitted to the district municipalities, which in turn may be adaptable for the whole country and beneficial for the whole country.

### 7.2.1     Definitions

Piana (209:57) citing Steyn (2006:270) defines policy models as simplified representations of selected aspects of a problem situation made for particular purposes. he also said that if policy models were well applied they could assist and facilitate explanation, description, understanding and planning of future initiatives (Steyn, 2006:270). She holds that models could clarify why certain results had been achieved, while others had not and finally, models indicated who made policy or how it was made and are classified according to realities represented by a particular model (Steyn, 2006:270-271).Before any undertakings regarding migration can take place, it has to be clearly understood what is meant by the concept of migration.  It is therefore imperative that migration is defined within the context of this study.

**Migration** can be defined as a fairly permanent move (at least three months), of an individual or group from one distinct place to another, or one kind of administrative system to another. **Gross migration** is the total number of people who migrate, whereas **net migration** means the change in population that can be measured when one subtracts the people who have left from the total number of people who have migrated. Concepts like in-**migration** and out **migration** are usually internal, between districts, between rural and urban and between towns or urban areas. The two models

that appear most often in discussions of South African urbanization and migration discourse are:

1. Circulatory migration and
2. Oscillatory migration

All of these models are closely tied to the idea that jobs and income dominate people's reasons for moving.

- **Circulatory migration** refers to a family that moves to a town fairly early in their married life, or that a man who is employed in the city marries in his rural community, starts a family, and then brings the family to live in the city. At retirement that family returns to the rural sector.
- **Oscillatory migration** means going back and forth all the time. Basically, that refers to labour migration, when a person moves to where he/she can find a job, work for a period and then return home for a period. The rural family never moves to the city, but the head moves back and forth regularly during working life, e.g. a year, six months or three months at a time.

## 7.3    SECTION 1: DEVELOPMENT OF THE MIGRATION MONITORING MODEL

The aim of this section is to provide background on the process that was followed to gather information concerning district municipalities and an overview of all the processes that were undertaken to develop a conceptual migration monitoring model (appendix 1, framework of steps followed during the information gathering process).

### 7.3.1    Information gathered about the immigrants (May-June 2016)

The purpose of this meeting with the refugee community representatives was to make contact with them and inform them about the entire migration study, and to gather information about them.  Contact details of relevant contact persons were made available. Following this they received the forms to take into their communities to gather information on what types of skills they have, how resources obtained are spent, working experience, what kind of expertise they had, where they lived before coming to the RSA.The aim was to  see  if  this could facilitate locating the right

peoplewith the skills neededso that could be trained or to attract others, retain those that are present, develop those with skills but need improvement to fill gaps left by the brain drain.

### 7.3.2    Major outcomes

It became evident    from the onset by what the immigrants said that there area number of skilled migrants that were willing to share their knowledge with locals and that different communities existed with their own way of contributing, and that if information gathering was successful, it could help the government and private sector to take full advantage of the existing skills and to createa system of data capturing, monitoring and controlling their movements andusing their skills for improving job creation and service delivery. This could also help the government in planning a form of integrated developed software.

### 7.3.3    Presentations at the Cape Town Home Affairsrefugee reception centre

After the  first  meeting with the refugee communities' representatives and subsequent data collection, a concept model was developed and presented at a meeting at the Cape Town home affairs refugee reception centre. During this meeting there were concerns regarding the concept of representation and the selection criteria. The model was amended accordingly and from this meeting we found out that there is little coordination and centralized centrefor a modeland control data gathering and where it does exist, it is of poor quality and not shared, with regard to the monitoring of migration and the skills coming into the country. The primary intention was to brainstorm the model and from the suggestions and new ideas, to improve the model.

From the city of Cape Town representatives present, we learnt that although they have a model, it only focuses on informal settlements via  the Informal Settlement Management Group  that was established  to  monitor migration  streams  within informal  areas. This group comprises of different municipal departments. These are Law Enforcement and Protection, Health services (who address the consequences of 'squatting'), and Town Planning (who address the need for housing, etc.).

Some of the questions raised at the presentation were whether the focus of monitoring and data gathering ought to be on poor migrating households who enter either informal

settlements or on other housing schemes? Or on the entire population of immigrants from the other African countries? For the present, there was a need for clarity, as black South Africans are sometimes referred to as migrants too. Another question was whether the data gathering and monitoring process was to be done annually or daily?

### 7.3.4    Major outcomes

The model was amended on the basis that the questionnaire, which is the instrument used to collect data, lacked some fundamental questions, and secondly to clarify how data will be collected, clarify concepts and who ultimately should hold and control the data centre. Asit will involve various departments; responsibilities should be clearly distributed to avoid overlap.

### 7.3.5    Presentations to PhD at UWC students and lecturers (25 March, 2014)

A series of presentations were held with foreign students from two universities at the five district municipalities at which the amended model was presented. The aim of these presentations was to brainstorm the amended model and to get critical comments regarding cost effectiveness and the feasibility of the model. A further aim was to ascertain if it would be possible for the government to develop, coordinate, implement and control a model. Asit is not feasible to monitor migration in the country as a whole all at once, although there will be a command centre, itwas proposed for each province to have a local centreattached to the national one for implementation and monitoring. Also, the need of a pilot project that will actually begin with African immigrants but can be expanded to the rest after the success of the model is tried and tested. Those present where also concerned with funding of the project and monitoring and control of the implementationand the pilot test.

### 7.3.6    Major outcomes

The officials were enthusiastic and questions were raised about what is meant by the concept of migration and the objectives of the model. TheCentral Governmentisnot solely responsible for the management and implementation of the model, although they are involved with the planning and designingand recommend that that local municipalities should be responsible for the monitoring of migration, as they are responsible for the management of urban areas. However, the Central

Government should have a coordinating role concerning the gathering, implementing and monitoring of migration within the country.

Concerns were once again raised about the selection criteria, given that the emigrant community is large, and the concept of representation was challenged. In other words, how can twohundred respondents be representative in an area like the Western Cape and Cape Town Municipality? The selection of respondents was not intentionally in accordance with the immigrant community in the different districts. Also, the issue of who is going to finance the salaries of the Reverse Brain Drain project team of employees, the duration of the pilot project, and thedesign and implementation of the migration model were major concerns.

It was evident from the discussion that the government does not have money for skills training as was demonstrated during the fee must fall and the government's response to municipalities. The government recommended that the private sector be approached for sponsorship or maybe the local municipalities (if they get to do the monitoring), should be responsible for the financing of the monitoring process

### 7.3.7 Presentations to PhD foreigners at CPUT and students and lecturers (23 November, 2016)

The objective of this workshop was to brainstorm the draft migration-monitoring model and to come up with innovative ideas. The idea was also to see if the model was acceptable, whether a pilot study was necessary and to see if it was feasible and cost effective for officials to do monitoring themselves. After presentation, the model was amended again to focus on areas with a high in-migration rate only. The selection criteria, which were proposed in the previous model, were eliminated from the model and the use of high-technology aerial photography, which is freely available from Water Affairs and Forestry, was introduced.

After the presentation, it was agreed that the monitoring of migration should be conducted at a level that is closest to the people, in other words at a local municipal level. It was also decided that the model should have a practical aspect as to the implementation thereof. The focus was to gather information concerning the model

and put together some practical guidelines in relation to the different processes of the model.

### 7.3.8  Major outcomes

- The Model is focused on  central and local municipalities only, with assistance and coordination from the district municipalities;

- Local municipalities will be approached for practical implementationof the model.

- Central and local stakeholders in the three spheres of government must buy into the plan;

- Sharing and monitoring by local municipalities with   coordinating and supportive roles;

- Specific and standardized monitoring techniques need to be developed;

- Effective time planning, training and staff utilization is necessary;

- Information gathering, sharing permanent and continued control;

- Publishing of the results obtained during the whole year to the public and all interested stakeholders annually, having it also accessible to any interested party;

- Pilot project needs to be executed to see if the model is acceptable and cost effective;

- The model also acknowledges that monitoring should be done ata local municipal level;

- There should be a realistic outlook concerning the model. Local municipalities can provide information on formal residential areas  and  informal settlements;

- Information about immigrants can be obtained from theNational Education Department; Universities, Land lord, Airlines, clinics; Police station, Banks at district municipalities and farms.

Despite various questions and common observations, the general feeling from all the meetings was that they supported the model.  There were also questions on  who  will be  responsible  for funding and the availability of manpower to do the monitoring, as  minimum  inputs  and affordability should determine the practical feasibility of the model.

**7.4    PROPOSEDSKILLS MIGRATION DATA GATHERING AVAILABILITY**
**MODEL**

**Description**

**Activities, processes and steps involved:**

Circulatory migration, the oscillatory migration, JipSA, Ethiopian and Thai Models are the base for the Republic of South Africa, helping the country in gathering information, sharing it, monitoring, coordinating and controlling immigration. For the model to work, first an office of the Reverse Brain Drain Project (RBD) has to be established at the Department of Home Affairs comprising members from the : Higher and Further Education, Basic Education, a Representative from the Security Cluster, Home Affairs, Labour Department, Ministry of Science and Technology, Association of South Africans Living Abroad, airlines,  SETA. The RBD project sets up connections among highly-skilled RSA migrants and links the Diaspora to universities, companies and other institutions,public and private, within the country for exchanging information and knowledge. The office identifies and collects skills coming into the country, facilitates and coordinates technology and knowledge transfers through short-term visits overseas.

 The RBD also acts as a one-stop-shop to disseminate and exchange information about the RSA's development needs, skills needs, job opportunities, to assist with visas/work permits, provide information to returnees under this programme, to work with partners, such as the South Africa immigrant communities via its representatives, the: Higher and Further Education, Basic Education, a Representative from the Security Cluster, Home Affairs, Labour Department, Ministry of Science and Technology, Association of South Africans Living Abroad, airlines, SETA to strengthen the activities of overseas  professionals and students.

**7.4.1    OBJECTIVE OF THE STUDY**

The purpose of this model is to gather data regarding the available skills entering the country with immigrants, regarding skilled South Africans abroad, immigrants upgrading or getting new qualifications, monitor migration on a regular basis and develop monitoring capacity at a local government level.  It will contribute to planning

and service delivery within various departments of municipalities regarding skills availability.It will be responsible forcreating policies and a conducive environment to acquire, train,retain, attract, develop, return and share and monitor the data collected at all levels.

This model will be used at the three spheres of government where local officials themselves can be used to acquire, train, retain,attract,develop , return, share and monitor migration skills coming into the country. Insummary, the main objective of the model is to generate and make useful skills migration data available on a regular basis as well as to build monitoring capacity at all levels. The migration information gathered will be relevant both to local as well as to Central Government for human resources planning purposes and to satisfy the needs of the country.

**Phase 1** of this thesis provides an overview of the process followed to develop the model.

**Phase 2** gives a clear outline of the proposed model, integrated with practical guidelines, which were used for thedesignand implementation of the model.

**Phase3** contains a discussion of the recommendations regarding the model. The appendices contain information about the skills migration -data gathering availability modeland the process followed with regards to the gathering of information for the purpose of developing a model.

The objective of this sectionwas to present an overview of the different phases pertaining to the model.

- Firstly, a geographical background concerning the Western Cape is given, detailing thevarious municipalities, district municipalities and district management areas.
- Secondly, a discussion with regard to the different phases of the proposed migration monitoring model, integrated with practical guidelines for the implementation of the model are presented.

The proposed model (diagram in appendix 1), consists of Five steps on a continuing basis in order to establish and maintain a demographic and skills

migration data  profile  for the country as a whole and the Western Cape specifically:

1. Form teams and divide responsibility;
2. Software Development and Policies Design to acquire,train, retain attract,return,monitoring;
3. Gathering of baseline information;
4. Pilot phase and review of baseline information;
5.  Implementation and dissemination of the information available;
6.  Monitoring and control.

**Step One: Team formation and responsibility divided**

During this first step a group of individuals representing various stakeholders,namely: Higher and Further Education, BasicEducation, a Representative from the Security Cluster, HomeAffairs, LabourDepartment, Ministry of Science and Technology, Association of South Africans Living Abroad, SETA with the objective of forming a Reverse Brain Drain SA team (RBDSA) responsible to design and implement software to collect data, policies to attract, train,acquire, retain. Sharing and monitoring information regarding who enters, what skills they have, wholives where,who is abroad and what is he doing there, dissemination of information and of the skills needed in the country.

- **How will the group be formed and what skills are required**

As mentioned above, themembers of this team should be able to draft education and economicpolicies, understandresearch, be able to identify the social, academic and skills needed in the country, and should understand IT, specifically software design and development, security issues and therefore the need for an integrated team although they are all on the same level.

- **Where and what they will need to start operations**

For the team to begin operations a centrally located office should be available for them at the Ministry of Home Affair's Head Office and each and every province and local government in the form of municipalities should do the same. Secondly, human resources should be available at all offices and thirdly, funds should be made available

by the Ministry of Finance. After the group's formation, each team member will begin with administrative work according to the responsibility and job description.

First, by designing a software package to collect data and it should be used at all entry points into South Africa, atair lines, embassies andconsulates and inside the country it should be available at home affairs offices, hospitals,universities, schoolsand police stations.

- **What Type of policies and Programs should they design**

One of the policies should be in relation to incentives to attract South Africans abroadback home and to acquire new skilled people as well as retain the existing skills. A second review of all the existing policies regarding skills development should be under taken and all the details should be integrated into one document.  Children should be guided from early in their school careers to think about moving in a direction that will allow them to study skills that are needed in the country. They should also be given opportunities to gain work experience at the appropriate time. A program called the Circle of Interest Program takes young students to various companies during schoolholidays to orientate them. The first step is to create an interest in them regarding the field of choice and then inculcate in them the culture of work, thereby gaining the much needed experience.

**Step Two: Gathering of baseline information**

This is one of the implementation phases of the model, when baseline information will be gathered in relation to skills, work experience, duration of stay, wherethey will be staying, reasonfor travelling, shopping habits and so on. Thisinformation will be requiredeverywhere the immigrant goes, from applying for a visa, to the busstations, airlines,hospitals, education establishment at which time the information can be updated and  the migration profile adjusted. Information gathering can be achieved in association with existing local municipal activities, especially the hotels, land lord associations and prison facilities.

The migration model is an instrument that should assist in streamlining efforts between  central Government and local municipalities  at  district  level  to  review base-line  information  in  order  to  draft  a  general  migration profile for planning

purposes. On the practical side, municipalities themselves should be responsible for selecting areas where skills are needed and the types of human capital, training and attraction and rotation programmes. They should determine what should be done, by whom and how. Indications as to what information might be necessary for each step of the model and which department(s) could be involved in obtaining it.

Baseline information should be gathered to draw up a general demographic profile of the type of immigrant the country is receiving of which migration forms an integral part. The purpose of gathering base-line information will be to gain a broad perspective of a the whole country, regarding the movement of people within its boundaries, what they are doing ,where they live and to draw up a profile within a local municipality. It will also identify areas to be monitored within the boundaries. The required base-line information will be readily available at municipalities and for all stakeholders the information can be made available on a webpage created for this purpose.

Before monitoring can begin, a migration profile atnational level and of each local municipality needs to be developed with a focus on the aspect mentioned above. National and provincial government are in the best position to provide information in this regard. In co-operation with selected municipalities, it became apparent that the following would be required to draw up and gather further migration data:

- Specific base-line Information needed as identified by the study;
- Biographical information (to establish the age, gender,marital status);
- Education (current and previous qualification);
- Working experience (previous work experience acquired abroad, and here);
- Occupation (type of job, formal or informal, private or government, self-employed);
- Where he lives,(suburb, township or Cape Flats);
- Ownership of the residence he lives in (own house, rented);
- Destination given to the money earned;
- Use public or private hospitals.

**(A)    Who should be responsible for the gathering of base-line information?**

- **National level**

A number of national government departments could    assist: Home Affairs, Basic Education, Further Education, Higher Education, Hospitals,Police Stations,Embassies and Consulates, Labour Departments,Universities, SecurityClusters, Ministry of Science and Technology, Association of South Africans living Abroad.

- **At Provincial and  Municipal levels**

Departments identified by municipalities,schools, universities, hospitals, police stations,hotels, landlord associations, prison facilities and airport customers.

**(B)    When should this commence and end and how can it be linked with other stakeholders including municipal?**

Baseline information should be  gathered and reviewed on an annual basis for comparison purposes and in order to adjust the migration profile. It can be gathered in conjunction with universities, prisons,schools, hospitalsor in general. During the beginning of the academic year.After thebase-line information has been gathered and a holistic perspective of the Quality of Migrant, has been established, one can move to the next step, namely the selection of areas.

**Step Three: Pilot phaseand review of baseline information**

At this phase, the focus will be on testing the feasibility of the Software of the Model, reviewing and correcting that which does not work properly and implement. After thishas been done, only then will it be known whether the software works and if the data collected is relevant.

Thedata can be used for selecting areas of high in-migration, planning purposes, identifying who comes into the country and with what skills, where will they be staying andworking experience.The departments involved should also take partin this pilot phase and give their input where it isnecessary. After all the necessary tests have been completed, updating should be done as regularly as the information changes

(monthly).

- Type of information needed as identified in the model;
- Number of people moving into and out of the country;
- Reasons for people moving in and out of the country;
- What type of skills they have;
- What type of working experience;
- What is the current occupation;
- How and where does he use the money earned;
- Married or single;
- If they own a house or not;
- If he/she lives in a suburb, township or the Cape Flats;
- If he/she is self-employed, works for a private company or the government;
- If they have committed a crime or have been in jail.

The purpose is to observe over time, if the country does get the needed skills and armed with this information to better plan how to use them to attract others and lure them back home. The skills development plan for the country and adjust the scarce skills quota visa from home affairs. The reason for these questions is to get the migrants' history and have some idea of their population distribution, countries of origin and qualifications or expertise in general to provide the minimum information necessary.

**(C)  Who should be responsible for monitoring the pilot and the project as such?**

The national and provincial departments and municipalities who in turnwill report to the national departments and the Reverse Brain Drain SA project director. Here again all the stakeholders initially identified can assist.

**(D)  When should this be done and how can it be linked to Provincial and Local Municipality?**

The pilot project should be implemented before the beginning of the project as a whole,preferably at provincial level, to test all aspects of the model.After the pilot test

has been implemented and the results compared, and if this comparison points to a need for new areas to be selected, then the base-line information can be reviewed to get a general migration profile of the new areas being selected. When all the processes have been completed, one should have a clear overview of what is happening in that specific area regarding migration streams. After two years, new areas can be selected for monitoring if necessary.

It should also be noted that it should be monitored constantly if they show inefficiency rates. The whole process can be repeated with the gathering of base-line information, selection and implementation country wide.

**(E)      What information will be reviewed as base-line information?**

The same    information collected in base-line and which forms part of the project should be revised to determine the existing shortfall.

**Step Four – Implementation and Dissemination of the information available**

After all the tests are done and revision at the pilot phase taken, now it is time to implement and share the  data collected with all stakeholders interested in it but in a coordinated fashion.

This is done first by installing the software that was designed in air planes, embassies andconsulates, the reverse brain drain in South Africa offices, Home Affairs,hospitals and universities via the international students 'office and college.

After the software is installed in all the places that it need to be installed and the intranet network is used to collect and share information regarding every immigrant coming in the country, and skills possesses as well those already in the country if they updated their qualification, daily activity and so forth it needs to be shared periodically with the relevant stake holders and local municipality.

In relation to the data of South Africans living abroad, the Association of South Africans Abroadis responsible for collecting and sharing job opportunities regarding government vacancies and other opportunities or benefits given to those who decide to return or choose South Africa to work, according to the RSA scarce skills list

updated by Home Affairs and published on the RBDSA project intranet and web site. The information collected abroad and locally should be updated on a regular basis and statistics or the results made available from various departments. When the total (formal and informal data) data is collected and the project is fully functional,it could then also be used to make inputs regarding the scarce skills list and the pull and push factors, to better help plan and adjust all policies relating to training, attracting, retaining or developingskills according to the country's needs.

**Step Five – Monitoring and control**

This is the phase of the model considered the final stage. The Monitoring and control is done primarily by the RBD SA project teams at provincial level, by the established representatives'and finally at the municipal level.

## 7.5    RECOMMENDATIONS

At local level municipalities should be responsible for the monitoring of migration, as they are closest to the people. They are responsible for service delivery and have a holistic view of their whole area of jurisdiction. This can be coordinated with provincial and national bodies.

It has become evident throughout the research period that a pilot study needs to be done, to see whether the model is feasible and cost effective and to identify who will be responsible to execute the pilot study, where and when. A central point at national, provincial and local municipal control should be established, in this case the Office for the RBD SA Project should be the one coordinating it and controlling all the data coming from other departments. This group will drive the whole process and manage all the interventions and activities that needs to take place.

Workshops and seminars should take place after the implementation of the model to inform all stakeholders, thepublic and media in general of its existence and role andthe importance of the proposed model, specifically for those not yet informed about the model.

A coordinated and integrated migration data and information sharing process should exist regarding the government's needs in terms of HR for the country. Policies to

attract and recruit people in those areas, revising of the school curriculum and adjusting it in line with local needs, and use the information in its planning processes.

South Africa is making a concerted effort to address the shortage of skilled artisans in the country by reviving an apprenticeship-training programme toaddress the problem of experiential learning and cultivating a working culture. The Apprenticeship Training program should be entitled CIRCLE OF INTEREST, with the intention of helping students from an early age to identify areas of interest and gain experience once identified and develop and guide the youngster.

A training model and handbook needs to be developed to serve as guidance for all the officials who will deal with the implementation and control of the migration model. An assessment of required financial and human resources is needed to see how the model can be implemented.

Although the government intends to create a learner data base and various others, JipSA, AsgiSA, the home affairs short skills list and other private initiatives should not be implemented in isolation but in a coordinated way, as there is no unique instrument to collect data or share information regarding skills that come into the country or leave and neitheris there a cohesive programme to increase interest in certain fields and promote work experience and work ethics.

The proposed migration model, itsdata and control should be done daily and on an annual basis, and should be inter-departmental.

## CHAPTER EIGHT

## RECOMMENDATIONS AND CONCLUSION

### 8.1 INTRODUCTION

In the previous chapter, a framework for effective data collection, attraction and retention of skilled migrants was proposed by drawing from the literature review and findings from the study. With this in mind, recommendations will be proposed, beginning with the recommendation structure with specific emphasis on immigrants of African origin, the government business and concluding remarks.

This chapter presents a discussion of the findings and brings them in line with the aim of the study and offers various views that are related to current literature and findings on the topic. It also sets out recommendations and conclusions and clarifies issues highlighted in the problem statement, research questions and research objectives. It interprets the information obtained from the survey questionnaireand accesses the existing skills amongst the study groupand its perceived social and economic impacts are interpreted as well as strategies that could help to improve the skills shortage are discussed.

### 8.2 DISCUSSION OFKEYFINDINGSOF THE STUDY

Using a research method, namely a survey, to collect data and analyse what type of skills immigrants have or bring into the country and their contribution into the socio-economic fabric in the Western Cape area.

### 8.2.1 Research questions

- In light of the problem presented above, the main research questions are outlined below:
- Do African immigrants have the necessary critical skills that South African requires?
- What socio-economic impacts are likely to have their presence in South Africa in relation to job creation and alleviating future poverty?
- What types of skills do immigrants, refugees and asylum seekers bring into the country?

- How can the problem of skills shortage be addressed in light of the present situation?

## 8.2.2 Sub-questions

The following are sub-questions that have been formulated, theresults of which will provide an answer to the research question:

- Can the skills that refugees, asylum seekers and immigrants bring with them be used to serve as viable alternatives to the skills shortage in South Africa?
- What is the cause of the skills shortage in South Africa?

In order to find answers to these questions, the researcher

Conducted a literature search for information, which relates to the type of skills that immigrants have and their contribution to the country through the empirical study, the status of brain drain globally and South Africa's skills shortage.

**Finding one**

The respondents were screened in term of the criteria, work experience and qualifications to be part of the study as noted in the survey instrument, which also aimed at confirming or refuting the assertion that immigrant do not create job, instead they take jobs, and one other perception that they do not possess the necessary skills needed to help mitigate the brain drain. The finding here is intended to directly address some of the research questions posed and investigated by this study, as well as to provide background information and clarity on the research question.

African immigrants in Cape Town are most likely to be male between the ages of 19 and45. Most African foreigners in the Western Cape are single males although some public officials believed that they came as families. Statistics released by the Cape Town Refugee Forum in 1999 estimate that of the 11 900 refugees in Cape Town, 10 000 are male, 1 000 women and 900 children (Cape Argus, 1999). This is supported by Rogerson (1997), writing in the Migration Policy Series about Johannesburg's foreign entrepreneurs, who established that new immigrant businesses are run by single, young, males who work on average a 64-hour week; their employees work

similar hours. Some employers who employ immigrants legally say they have good work ethics and, in some case, exceptional skills. However, their enterprise has made them unpopular with local South Africans. (Cape Argus,1999).

- Most of them with some kind of experience or skill acquired this via life experience, practical training or university. The literature found support forthis. The findings by McDonald et al., (1999) and Peberdy (2000) hold that migrants are motivated to come to South Africa largely, but not entirely, by economic opportunities and that they are motivated, educated, skilled and enterprising and that they find work easily but are poorly paid, are corroborated by this study.

- It was found in this study that there is no truth regarding the negative perception that immigrants are taking jobs and the study reveals that most of them are self-employed small entrepreneurs who create jobs and by so doing contribute to poverty alleviation. This is in line with a previous study conducted by Tengeh(2015:261), who found that most immigrants own small businesses and that most of them employ South Africans in those small businesses.

- In relation to a question that sought to understand the existence of skills among immigrants residing in South Africa and their contribution toward integration and economic participation, based on the results in tables 6.5,6.6,6.7 and6.12,is was deduced that immigrants do have the needed qualifications and experience and contribute economically throughtaxes paid,rent and so on.

- This is in total contrast to the popular perception that they do not contribute to the economy of the country.

These findings help to understand and clear up the misconception that immigrants are not job creators. This study only investigated African immigrants without expanding to Europeans and Asians, who are also immigrants. It is interesting to note that Basotho, Tswana and to certain extent,Namibians, do not see themselves as foreigners in South Africa. Results obtained from the literature indicated that there is a skills shortage in the country at large and the Western Cape in particular. It is clear that the findings from thisstudy thatthe government and all stakeholders have a task ahead to investigate the problem and find ways to solve it.

**Finding two**

The African National Congress (ANC) government, through its National Education Policy Act No 27 of 1996 and the Skills Development Act (SDA) of 1998, outlined that the right to education is a basic human right, as well as skills development, to improve the skills shortage that faces the country. Consequently the study help us to deduce from the literature that some measures were taken by the government through partnerships involving all stakeholders, namely employers, public education institutions such as FET colleges, universities of technologies and traditional universities, private training providers and the Sector Education and Training Authorities (SETAs). It is important to note that various innovative initiatives and measures to enhance the skills base of the country have been introduced since 1994, namely the South African Qualifications Authority Act (SAQA 58/1995), the Skills Development Act 1296/1997and the Further Education and Training Act 9198/1998). The white paper for the transformation of higher education, the Green paper on skills development strategy for growth of the economy and employment in South Africa, NSDS (National Skills Development Strategy) Green paper for post-school education and training 2012.

Affirmative action is a sensitive issue in the new South Africa, not because it is wrong in any sense but because of its unintended consequences. It evolved throughan elaborate process of public consultation that culminated in the core legislation of the Public Services Act, the Employment Equity Act, the Skills Development Act and the Skills Development Levy Act.

One of these initiatives is the formation of institutions such as the Sector Education and Training Authorities (SETA), which is mainly funded by skills development levies from employers that pay 1% of their workers' pay and the Joint Initiative on Priority Skills Acquisition (JIPSA), which aims to concentrate on developing skills that are most immediately needed in the country, while the sector for education and training authorities (SETA) provide sector-specific training programmes.

Part of government's channel for addressingthe skills shortage was the recent division of the education portfolio into two separate departments: basic education and higher/post-secondary education. Basic education comprises primary and secondary

education, while higher education includes education and training as well as universities. This separation allows thedepartment's sufficient room to work with responsive issues such as a lack of access to higher education by the poor and the working class.

The NSDS (2007:3) holds thatthe government depends on two main elements to implement and achieve its objectives, which are: the Sector Education and Training Authorities (SETAs) and National Skills Funds (NSF) as well as other agencies such as the National Productivity Institute (NPI),which strives to improve the productivity capacity of South Africans through consultation and the implementation of progressive education, training and employment regime that supports government, business and labour.Other new institutionthat were established are the Joint Initiative for Priority Skills Acquisition (JipSA) to complement AsgiSA, which was mandated to identify the most urgent skills needed by the economy, to find a quick fix and effective solutions to address the skill shortage. Its activities include coordination of special training programmes, transfer to new graduates, compiling a database,bringing retiredexperts back, encouraging South Africans working abroad to returnand mentoringtrainees to fast track their development.

The Institute for the National Development of Learnerships, Employment Skills and Labour Assessment (INDLELA) is responsible for the assessment of artisans linked to NSDS objectives, promoting and accelerating quality training for all in the work place.JipSAconducted research on the skills needed in ICT but welcomed the establishment of the E-Skills Council, The mathematics and science (Dinaledi) programme for 529 high schools in order to double mathematics and science graduates was designed to produce workplace-ready graduates, the National e-Skills Dialogue Initiative will develop skills, find employment for candidates and support career learning. Focusing on various categories of IT development, the initiative will attempt to improve IT user skills, business skills, e-literacy and IT practitioner abilities (Pringle,2009), and the National Learner Database(Grawitzky, 2007).

Amongst the issues discussed were the Cuban and Iranian medical doctors programme – and its extension into the rest of the continent. The move will see Cuban and Iranian doctors working in South Africa's rural areas. Besides all government at central level initiatives, the Gauteng provincial government initiated the Gauteng city

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region academic (GCRA). The scarce skills allowance applies to 62 000 full-time health professionals in specified categories, regardless of the geographic area in which they work. All these initiatives are individually operated instead of being coordinated to achieve better results.

The literature has revealed that the government has taken tremendous measures to address and improve skills shortages in the country, but that cannot be limited to announcements through television channels and radio programmes (Mateus, 2012:98). 98.3% of the respondents are of the opinion that the skills shortage should be talked about more often on radio and television so that it becomes a national issue.

The use of skilled African foreigners should not be neglected by government, because if well utilised, this force can perform a significant role in the South African economy and its human development. It is seen from other country's experience that foreigners do contribute positively to the host country.

The literature findings indicate that there mixed views in relation to the use of foreigners as alternatives to improve the skills shortage and the benefits (Mateus, 2012:98).In his study shows that 21.7% of the respondents strongly agree while 32.2% agree and 25.4% are unsure there is concordance with the current study as it is shown on table6.93, where 73.2% said yes in agreement with the question related to long term benefits RSA has by so being considered a winner while,6.96%, are of the opinion that the host country win with the transfer of new knowledge 64.3%.

This is supported by the literature, whichindicates that South Africa has been heavily dependent on migrants who contributed to the South African economy's labour from its earlier days.

(Murray, 1995:374). A number of these labourers were immigrants who came from the southern African region of the African continent and were always welcomed and attracted to work in the mining and agriculture sectors.

Brain drain does not only benefit the receiving country, it benefits both countries. The receiving country benefits from the expatriate when he/she returns to his/her country of originand the remittance that is used back home to uplift the lives of those staying behind.

Various authors dispute the view that immigrants are a threat to the social and economic interests of a host country, by showing that in developed countries these people are considered to be people who invest and add entrepreneurial talent to the economy(CDE, 2000); Mattes, Taylor, McDonald, Poore and Richmond, 1999:7); Mattes, Crush, Richmond, 2000:1); Walker Ellis and Barf, 1992:235). International experience teaches that skilled immigrants more often contribute meaningfully to the advancement and economic growth of the host countries through their entrepreneurial skills, innovative ideas, new skills and hard work.

South Africa, has already witnessed the benefits that it can gain if it decides to recruit African foreign skilled professionals. One way of looking at the benefits and contributions gained from using this work force is by observing the positive impact brought from people of Malay extraction, India and Pakistan, Eastern Europe, Middle East (Lebanon) and the Far East, as they have all contributed significantly to South Africa's skills base. The findings obtained from secondary sources indicate that immigrants have entrepreneurial talents and ambition; and are to a certain extent prepared to take risks and above all possess the necessary drive to survive and succeed in a foreign country.

The study recognised the existence of various and important initiatives that failed due to a lack of supervision during the implementation phase, reduced political will at certain stages, lack of enthusiasm and of policy coordination across the relevant sectors due to fragmentation among government departments, which makes developmental policies difficult at one level, career development policies need to be part of a coherent coordination of relevant policies relating to education and training, skills development, the labour market and social equity and development.

When needed, this coherent mechanism will lead to the existence of multiple stakeholders being responsible for various elements of service delivery. According to a study by the OECD (2003), career guidance is a key element in effective policies relating to labour market programmes, welfareand to work programmes and the retention from school to work (du Toit, 2005:16).

In response to a question trying to ascertain the factors that attracted immigrants of African origin to South Africa, or what played a role in influencing their decision, thereis

a need to clarify that each and every move is motivated by a particular factor.Tables6.5,6.6 and 6.7 indicate the results regarding reasons for leavingtheir country of origin. Economic and political factors are on top with 56.8%, while war follows with28.6% and economic and academic reasons follow with 8.0% and 4.5% respectively. Stability and peace with 56.8% represent the strongest pull factors followed by economic factors at 27.6% with familyties at58.8% weighing inheavily. Languagescored26.6%.

Although not all brain drains are caused by immigration or emigration (outmigration), and that for immigration to occur, especially the voluntary type, therehas to be an existing motivation factor. An individual must feel sufficiently motivated to emigrate before taking any action to do so. A number of motivational theories have been established to explain this behaviour, some of which will now be presented.

- Maslow's hierarchy of needs theory

Eagar (2008:15) citing Allen (2003) cites Maslow's hierarchy of needs as the most frequently used human needs motivational model. Maslow's theory holds that there are a number of successive levels of human needs and only once the needs at the lower level have been satisfied, will an individual endeavour to satisfy higher order needs. These levels from lowest to highest are:

Vroom's (1964) expectancy theory, which falls into the category of process theories, considers the whole work environment and posits that individuals are motivated to work when they anticipate achieving what they expect from their jobs. Individuals who feel that no matter how hard they work, they will not reach the desired performance level are unlikely to be motivated.Osando (2007:8-14) acknowledged that a variety of factors shapesthe international mobility of labour and this is in accordance with the findings of thisstudy, as shown below, the majority of the participants responded in the following way:

- In relation to the question of factors attracting them to the country, most cited apparent political stability, 70% better quality of life, perceived better salaries and good education and infrastructure. These are the most cited factors as reasons for coming to South Africa followed by family and economic

factors,political and educationfactors.Fromthe answers from a total of 200 respondents reflected in Table 6-5, when asked about the reason for leaving their country of origin, the responses varied, with 56.8% of the respondents claiming they left their country for political reasons, while 28.5% cited academic purposes followed by 8%citing economic factors and war with4.5%.These answers gave the researcher and other stakeholders an insight intothe possible changes in the type of immigrant entering South Africa and their social class. It appears that the final decision was influenced by theirfamilial and friendship ties and language proximity as indicated in the research.

- In relation to the factors influencing them to leave their country of origin, war, political instability, environmental factorsand economic factors are the most cited.

These findings are in line with the push and pull factor theory and in support of the motivation theory (Simelane,1993:3) and Maharaj, (2009:3), who advocate that immigration is either caused by push factors back home, or pull factors in the country of destination, chief amongst many are, war and political instability as primary motivators.

**Finding number Three**

In line with the research questions about how to address the problem of the skills shortage, various initiatives locally and internationally served as a framework to develop a model that it is hoped will respond to the issue at hand. This research disclosed that numerous governments in Africa and private sector concerns are all interested in finding a solution to the scarce skills shortage, at least in principle and in terms of policies.

On paper there are numerous initiatives to deal with the skills shortage and training people with scarce skills. As an example, the AU launched the Western Hemisphere African Diaspora Network in 2002 prior to the 2003 summit of heads of states, to investigate a role for the Diaspora (Easterly and Nyarko, 2005:17). It was recommended that the African Diaspora be encouraged to collaborate with entities such as the EU/EC, AU, ILO and IOM to assist in fostering stronger relationships by creating an enabling policy environment; ensuring good governance and establishing

a database of highly skilled Africans living abroad. This includes those stillattending universities and the skills needed by the economy:

- Develop integrated migratory policies on poverty reduction;
- Counter the exodus of skilled Africans by promoting skills retention and remittance transfer.

The African initiative to engage the African Diaspora is championed by the African Union (AU), the New Partnership for Africa Development (NEPAD) and the African Development Bank (ADB). The return and reintegration of qualified Africans living abroad was implemented between 1993 and 1999. The mandate was to facilitate the return of skilled Diasporas to fill gaps in the local economy. According to (Belai, 2007:67), similar initiatives abroad are the Reintegration of Qualified Latin American Nationals (RQLAN) and the Return of Qualified Afghans (RQA).

- The African Migration Fund

The establishment of the African Migration Fund would help to counteract brain drain by using it to implement measures set out in the Tripoli Joint AU-EU Declaration (Tripoli Declaration, 2006), and the Migration Policy Framework (Africa Health Strategy, 2007:12). The Ethiopian Expatriate Affairs (EEA) has the task to ensure effective interaction between the Diaspora and various government agencies. The problems begin with the lack of effective implementation, control or supervision, resulting in good plans not being well implemented in a coordinated manner andnot producing the expected result.

All this has assisted the researcher to identify what measures are in place and their problems in order to create an improved model to establish a database, identify the skills needed by the economy, attract new and old ones, promote skills retention, train anddevelop integrated migratory policies.

One of the findings is that although thegovernment acknowledged the skills shortage through the plans and policies it implemented, there is no coordination amongst the ministerial departmentsinvolved to show how the various initiatives are designed and implemented, such as theestablishment of the Joint Initiative for Priority Skills Acquisition (JipSA), to complement AsgiSA, mandated to identify the most urgent skills

needed by the economy, to find a quick fix and effective solutions to the skill shortage. Its activities includes coordination of special training programmes, transfer to new graduates, compiling a database and bringing back those retired experts, encouraging South Africans working abroad to return, mentoring trainees to fast track their development and drawing skills in while at the same time other institutions are creating and implementing other initiatives such as:

- The Institute for the National Development of Learnerships, Employment Skills and Labour Assessment (INDLELA), which is responsible for the assessment of artisans linked to NSDS objectives, promoting and accelerating quality training for all in the work place;
- JipSA did some research on skills needs in ICT but welcomed the establishment of the E-Skills Council;
- The Mathematics and science (Dinaledi) programme for 529 high schools in order to double mathematics and science graduatesdesigned to produce workplace-ready graduates,
- The National e-Skills Dialogue Initiative will develop skills, find employment for candidates and support career learningby focusing on various categories of IT development(Pringle: 2009).Little or no effort is made by the Department of Home Affairs in advertising or attracting skilled individuals via the scarce skills quota system. Little or no connection with the association of South Africans living abroad, foreign nationals mainly from countries like Zimbabwe andNamibia, in short the SADC region countries and others like Ghana, Kenya and Nigeria to mention few, and those that did, did so out of their own interest not due to a coordinated and attractive policy to retain or poach highly qualified technician or engineers that have graced South Africa.
- There is no alignment between the real need of employers and what the universitiesaretraining, and the school curriculum needs to be changed to be in line with the country's requirements.

## 8.3    RECOMMENDATIONS

The recommendations made here are based on the obstacles that the government faces in recognizing the existing skills shortage and in taking advantage of the incoming skills brought by immigrants to minimize the issue of skills shortages as

found in the literature review and reported by the immigrants themselves. They are structured in line with the stakeholders, including African immigrants, the government and the private sector.

Through legislation, the national government should formulate laws that impact on immigrants in general and on the environment in which they operate, creating a conducive environment and positive outcomes. As noted by Bauer etal. (2001:1),the choice of policy affects not only the growth and performance of an economy but the characteristics and type or quality of immigrants it receives, as well as guide or leads or influences the perceptions andmotives thelocals have in relation to immigrants at thelocal level. Positive local legislation and active education campaigns highlighting or explaining the role that African immigrants can perform and have performed in the past.

**Recommendation one**

The government should design policies and keep databank, to improve coordination between all its structure such as home affairs embassies, private sector, Department of Labour, universitiesand refugee centres. A way must be found tocoordinate the approach in relation to how to deal with immigrants and data sharing with all ports and airports of entry.  This will help in collecting the necessary information regarding everyone entering the country and attract the type of skills needed by sharing the information gathered with all stakeholders.

**Recommendation two**

Although great efforts and strides have been made in recent years to improve access to resident documents, refugee permits and others, there are barriersin the process ofobtaining their papers due to corrupt officials, delays andexcessive bureaucracy.The current section 22 asylum seekers' permit issued to immigrants is not universally accepted in the business world. Landlordsand companies, including banks, seem reluctant to accept this permit as a form of identificationand harassmentby the police is a common occurrence.It is suggested that a durable and more credible document be issued andrenewed annually. This, accompanied by sensitisation, may encourage stakeholders to be more confident when dealing with immigrants. Also, a simplification

of the process of obtaining a business license by maybe changing a normal refugee permit into a business permit.

**Recommendation three**

The government should improve its strategy and instrument of data collection techniques on immigrants entering the country.

The government should improve and support immigrants who wish to initiate businesses by being more sensitive to their needs and giving them all the information that they need andinvolve the immigrant population by consulting them with regard to policies that will also affect them. The department of home affair should share and collect information and also provide short course training, workshopsor seminars. Seminars with local communities could be organized where experience and information can be shared between local and immigrant communities on how and where to get funds and to explore different business ideas and small joint venture or cooperatives amongst both groups. This would be appropriate as it will allow information and knowledge sharingand allow an opportunity for getting to know one another.

Private businesses can also cooperate with immigrant businesses or government by sub-contracting, depending on the number of employees they have. There should be a policy to encourage or reward businesses formentoring or doing business with small and immigrant businesses.

For it to be successful, the recommendation is that an awareness campaign should be created withthe unique objective of informing andeducating peopleabout the categories of immigrants, the various types of permits and the rights and conditions attached to each one of them.

International experience stresses the importance of creating awarenessand promotingthe holistic integration of immigrants. Immigrantsshould be at the forefrontof creating opportunities for themselves by being proactive not reactive and helping to facilitate andnegotiate capital and lobbying for policies.

By acknowledging the high unemployment rate in the RSA South Africans should welcome the arrival of immigrants, especially those who initiates mall businesses as they create much needed jobs. Social integration can be achieved through immigrants settling among the locals irrespective of race as a way of breaking the racial barrier. It is of paramount importance that the government creates some kind of structure that permits information and experience sharing between locals and immigrants, encouraging cooperatives via government incentives, bypassing the inefficiencies of black economic empowerment, which is a top down approach benefiting few people at the bottom.

## 8.4 SUGGESTIONS FOR FUTURE RESEARCH

This research focused on assessing the existing skills amongst African foreign nationals and their contribution towards the alleviation of skills shortages and job creation in the, Western Cape. A shortage of skills sets unique challenges for South Africa, as the country's aims are to sustain a high level of economic growthand toeradicate poverty and unemployment. This researcher recommends that advanced research should be carried out over an extended period in order to establish whether there is skills amongst the existing refugees and immigrant communities residing in the country or if the available skills has an impact on economic growth, job creation or employment, reduction of poverty and consequently, improved standards of living.

**Future research could be broadened in areas such as:**

- The positive effect of migration on the host country;
- An analysis of South Africa's proposed strategies to address skills shortages that are suitable for the country taking into account the number of strategies already in place;
- Further recommendations should also be in relation to the role of language in the skills shortage and its impact on crime;
- The role of South Africa's education system on the migration of its skilled workers;
- Young,African, female immigrants;
- An in-depth study should also be conducted on the benefits of the availability of skills for economic growth;

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- An analysis of the impact of sport on the skills shortage.

Finally, research normally focuses on the negative effects of skills shortage; but the reality has shown that there is also a gain. One way to eliminate such perceptions is by conducting research into the effects of immigration on the host country.

## 8.5    CONCLUDING REMARKS

The South African Government cannot combat the skills crisis in the country in isolation. It requires national unity from all stakeholders, to be precise; government, employers, employees, public and private institutions, FET colleges, universities of technologies and traditional universities. Through engagement with these institutions short and long term solutions can be identified in a coordinated fashion and addressed. The following are the recommendations that emanated from the research study. These should be considered by the government as they could address the skills shortage problem, as well as the government's need for economic growth, poverty alleviation and the creation of employment.

The availability of skills is central for South Africa's social and economic development plans. The country has been plagued by severe skills shortages in almost every sector of its economy resulting in high levels of unemployment, poverty and other social issues. Chapter two of this study presented the theoretical overview of brain drain and brain gain in an international contextcauses and/or reasons for the skills shortage in South Africa in general and western in particular, the social and economic impact and an alternative that may be adopted by the government and stakeholders to address skills shortages in the country. The recommendations below may be helpful to the government and stakeholders in relation to formulating policies and strategies to help the situation.

- Government should make the skills shortage a national problem that requires a national solution. By so doing the crisis would be discussed more often on television and radio programmes and in all other media where citizens are able to air theirviews relating to the matter.
- The government and its partners should improve the education system to overcome the disparities experienced under apartheid. Learners will be

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enabled at an early age, through education and lifelong learning, to elevate their chances of being aptly employed. This can be achieved through equipping learners with basic employability skills, such as literacy and numeracy and other important life skills for building confidence and self-esteem.

- Government should create a programme aiming at improving the information on skills shortages throughout the country, as such a programme would help monitor the monthly job vacancies advertised in newspapers, on the internet, job boards and all other ways in which employers advertise on selected skilled occupations for which there are indications of shortages.

- The government and its partners should be more rigid with the learnership programmes already in place. In the case where employers do not comply with requirements they should be penalised of fined. If organisations follow the rules, learnership programmes can be helpful, not only for those already in the labour market but also for new entrants, particularly university graduates.

- Stakeholders should ensure that curriculum planning and coordination become a priority in learnership programme management. In particular, registration of learnership programmes and coordination of programmes should be assessed and audited according to the rules laid down by both the departments of Labour and Education. It is important to assure quality when teaching and learning imperatives are required. Offering qualifications for the sake of fulfilling quotas is not an effective way of doing things and sooner or later reflection in the tangible expression that learners had will demonstrate in the actual workplace.

- A discussion with stakeholders, namely business partners, employees and employee representative groups, education and training providers where government coalesce short and long-term measures regarding skills shortage is also critical for the best outcomes of the responses.

- Government should invest more in education by building more training centres and facilities across the country, especially in disadvantaged areas, as learners would emerge qualified with critical skills that would promote self-reliance and would allow them more chance for success in the labour market. This would help eliminate the high level of unemployment, the anti-social behaviours as well as eradicate the level of poverty that is prevalent in South African communities.

- It is critical that SETA meet it mandates, which are to identify specific skills needed in the labour market to meet the demands in the market and help the economy grow. This is important as the sector has been criticized for underperformance since its establishment, and for issues relating to corruption, uneven governance, poor performance administration and financial inefficiencies and for not doing enough for the youth, resulting in the failure of a smooth transition of graduates from tertiary education to the labour market.

- The use of the pool of foreign African skilled immigrants seeking jobs in scarcity occupations should be welcomed by the government and all stakeholders as a short term solution to the skills shortage, while the country is training and developing its own workforce as a long term solution. If well utilised, these skilled immigrants will not take South African jobs away but help the economy of the country by reducing the level of unemployment with their technical and entrepreneurial skills and help government fight poverty by creating more jobs and reducing many of the social problems in the Western Cape.

- Besides the use of skilled African foreigners already in the country, an improved migration policy from the Department of Home Affairs in conjunction with the Department of Labour would help bring expertise that South Africa needs to help design policies, and training programmes that would help the country improve its literacy and numeracy programme.

- South Africa experienced a brain drain during the global recession. The researcher recommends that the South African Government look at ways to implement positive recommendations to enhance skills development and return South African skilled professionals back to South Africa to fill the gap and not leave South Africa for well paid jobs overseas or for jobs in countries such as Botswana, Namibia and Angola.

- Lastly the progress of measures/recommendations made should be monitored regularly and evaluated to achieve the best results. A monitoring team or system of constant revision and monitoring of the plan's progress should be part of the planning.

The results that emanated from the study outlines the need to understand the skills that existent amongst immigrants and how best they can be used as indicated in the literature review and from the findings. The skills shortage impacts negatively on

poverty, service delivery and the living standards of all South Africans. Skills shortages also prevent the government from meeting its unemployment reduction targets, job creation and economic growth. While on the other hand, it also hampers South African business from being productive and more competitive globally. The government and stakeholders should take immediate measures towards alleviating the problem.

Although the skills development strategy and its resultinglearnership programme have experienced criticism, skills development is and will remain, a dynamic and evolving process to address the skills shortage as a long term strategy that just needs coordination and adaptation to best practices, while the use of skilled African foreigners already in the country could be used for a short and medium term solution. The researcher concludes that if the government, stakeholders and policy makers are fully and more accurately informed with regard to labour market demands, specific occupational shortfalls can be identified and prioritised, while partnerships can be established to focus on developing curricula and implementing programmes to combat skills problems.

The main aim of this research was to understand whether immigrants bring any skills, if those skills serve any purpose in South Africa and to develop a framework toeffectively identify, collect, attract and retain skilled individuals from amongst the immigrant community and how best to utilize or maximise them. This objective was met by designing and proposing a frame work that seeks to improve data collection identifying, attracting and retaining these skills to South Africa's advantage.

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**BRAIN DRAIN IN SOUTH AFRICA: A SKILLS AUDIT AMONGST AFRICAN IMMIGRANTS AND THEIR CONTRIBUTION TOWARD THE SOCIO-ECONIC FABRIC IN SELECTED AREAS IN THE WESTERN CAPE**

This questionnaire seeks to establish the availability of skills amongst the immigrants, refugee and asylum seeker population. Furthermore, is designed to investigate the socio-economic impact of Immigration and the contribution of foreign nationals from other African countries. The outcome will assist and guide government in amending, drafting new labor law and relations policies and seeking sustainable alternative, methods, that may help minimize the skill shortage by turning brain drain into brain gain.

**What we will do with the results**

- Firstly, please be assured that individual responses will be kept secure and in complete confidence.
- Secondly, the findings will be analysed and summarised.
- Thirdly, the summary of the findings will be made available to all interested stakeholders and to members of the community.

Finally, the summary of the findings may be published academically (i.e. in research journals in South Africa and elsewhere), should they merit the attention of researchers and others who are work to improve the economic status of communities.

Note:  Please attempt to answer all questions by placing an x in the chosen column.

**Joao Mateus Domingos**
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## SECTION (A): GENERAL BIOGRAPHICAL INFORMATION

Please answer the questions by putting (X) in a relevant square (❑) or by writing your answer in a space provided.

1. Please tick one box indicating Gender

| Male | ❑ |
|------|---|
| Female | ❑ |

2. Please tick one box indicating your Age range

| Under 20 | 21-30 | 31-40 | 41-50 | 51Over |
|----------|-------|-------|-------|--------|
| ❑ | ❑ | ❑ | ❑ | ❑ |

3. What is your country of origin?

|  |
|--|

4. How long have you been in South Africa?

1-2 Years ❑          2-3 Years❑          More than 3 Years ❑

5. Mark with an x Identifying the reasons you left your country?

| War | Economic factor | Political factor | Environmental factor | Academic Purposes | Social factors | Others please identify |
|-----|-----------------|------------------|----------------------|-------------------|----------------|------------------------|
| ❑ | ❑ | ❑ | ❑ | ❑ | ❑ | |

6. What were you doing before coming to SA?

| Working | Studying | Business | Others please identify |
|---------|----------|----------|------------------------|
| ❑ | ❑ | ❑ | |

7. If you were working, what kinds of company/institution you worked for? if studying is the answer please respond question12

| Government | NGO | Self-employment | Private Company | Others |
|------------|-----|-----------------|-----------------|--------|
| ❑ | ❑ | ❑ | ❑ | ❑ |

8. If there answer is working how long did you work there?

| Years | ❑ | Months | ❑ | Days | ❑ |
|---|---|---|---|---|---|

9. What position have you occupied in your previous job?

| Employee | Supervisor | Middle Manager | Senior Manager | Others please identify |
|---|---|---|---|---|
| ❑ | ❑ | ❑ | ❑ | |

10. What sector did you work for?

| Formal | ❑ |
|---|---|
| Informal | ❑ |

11. Please indicate whether your employment was:

| Part-time | ❑ |
|---|---|
| Full-time | ❑ |

12. If the answer to question 7 is studying what is your highest qualification?

| Grade 1-Matric | Diploma | Degree | Masters | PhD | Post doctoral | Others please identify |
|---|---|---|---|---|---|---|
| ❑ | ❑ | ❑ | ❑ | ❑ | ❑ | |

13. What type of permit do you currently hold?

| Study permits | Working Permit | Refugee status | Others please identify |
|---|---|---|---|
| ❑ | ❑ | ❑ | |

14. What are you currently doing in South Africa? If studying is the answer please respond question 17

| Working | Studying | Business | Others |
|---|---|---|---|
| ❑ | ❑ | ❑ | ❑ |

15. If the answer to question 14 is work where are you currently working?

| Government | NGO | Self-employment | Private Company | Others |
|---|---|---|---|---|
| ❑ | ❑ | ❑ | ❑ | ❑ |

16. What position do you occupy at work?

| Employee | Supervisor | Middle manager | Senior Manager | Others |
|----------|------------|----------------|----------------|--------|
| ❑ | ❑ | ❑ | ❑ | ❑ |

17. If the answer to question 14 was studying what is your highest qualification?

| Grade 1-Matric | Diploma | Degree | Masters | PhD | Post doctoral | others |
|----------------|---------|--------|---------|-----|---------------|--------|
| ❑ | ❑ | ❑ | ❑ | ❑ | ❑ | ❑ |

18. What is your field of study: Faculty?

| Applied Science | Business | Education and Social Science | Engineering | Health and Wellness Science | Informatics and Design |
|-----------------|----------|------------------------------|-------------|------------------------------|------------------------|
| ❑ | ❑ | ❑ | ❑ | ❑ | ❑ |
| Other ❑ please specify: | | | | | |

**SECTION (B): INFORMATION RELATED TO AVAILABILITY OF SKILLS**

Please read the statements carefully and select **<u>ONLY ONE</u>** answer that represents your opinion by putting (x) in a relevant square (❏).

1. What is your opinion in relation to the existence of skills shortage in South Africa?

| No | STATEMENTS | SCALE | | | | |
|---|---|---|---|---|---|---|
| | | **1** | **2** | **3** | **4** | **5** |
| | | Strongly agree | Agree | Neutral or undecided | Disagree | Strongly disagree |
| **1.** | Skills shortage does not exist in south Africa | ❏ | ❏ | ❏ | ❏ | ❏ |
| **2.** | Skills shortages exist in certain sectors only | ❏ | ❏ | ❏ | ❏ | ❏ |
| **3.** | Skills shortages exist in the education sector only | ❏ | ❏ | ❏ | ❏ | ❏ |
| **4.** | Skills shortages exist in the math's and sciences only | ❏ | ❏ | ❏ | ❏ | ❏ |
| **5.** | Skills shortage is a myth | ❏ | ❏ | ❏ | ❏ | ❏ |
| **6.** | Skills shortage is a perception | ❏ | ❏ | ❏ | ❏ | ❏ |
| **7.** | Skills shortage exist in the health sector only | ❏ | ❏ | ❏ | ❏ | ❏ |
| **8.** | Skills shortage exist in the public sector only | ❏ | ❏ | ❏ | ❏ | ❏ |
| **9.** | Skills shortage exist in the private sector only | ❏ | ❏ | ❏ | ❏ | ❏ |
| **10.** | Skills shortage exist in the construction sector only | ❏ | ❏ | ❏ | ❏ | ❏ |
| **11.** | Skills shortage exist in local government only | ❏ | ❏ | ❏ | ❏ | ❏ |
| **12.** | Skills shortages exist in all sectors of the economy in the country | ❏ | ❏ | ❏ | ❏ | ❏ |

2. Please read each of the following statements regarding the causes of skills shortage in South Africa and rate your answer by marking with X the appropriate block

| No | STATEMENTS | SCALE | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | Agree | Neutral or undecided | Disagree | Strongly disagree |
| 1. | Skills shortage in South Africa is caused by the perception by certain section of society, who believed that would be civil war 1994,and the increase in crime that led to exodus of South African | ❏ | ❏ | ❏ | ❏ | ❏ |
| 2. | Skills shortage in South Africa is caused by the perceived unstable political factors in the country | ❏ | ❏ | ❏ | ❏ | ❏ |
| 3. | Affirmative as a policy contributed for certain section of the country to emigrate | ❏ | ❏ | ❏ | ❏ | ❏ |
| 4. | Skills shortage in South Africa is a result of perceived good working conditions, and stable environment in other countries | ❏ | ❏ | ❏ | ❏ | ❏ |
| 5. | Skills shortage in South Africa is caused by the perceived lack of good working condition in the country of destination. | ❏ | ❏ | ❏ | ❏ | ❏ |
| 6. | Skills shortage in South Africa is a result of perceived good or high salary in the country of destination | ❏ | ❏ | ❏ | ❏ | ❏ |
| 7. | Skills shortage in South Africa is a result of lack of career guidance and graduates training not responding industries need | ❏ | ❏ | ❏ | ❏ | ❏ |
| 8. | Skills shortage is due to skills mismatch, in certain sectors of the economy | ❏ | ❏ | ❏ | ❏ | ❏ |

| No | STATEMENTS | SCALE | | | | |
|----|------------|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | Agree | Neutral or undecided | Disagree | Strongly disagree |
| 9. | Skills shortage is caused by people lacking the necessary experience required in the work place | ❑ | ❑ | ❑ | ❑ | ❑ |
| 10. | Skills shortage is also due to out-dated education policies/training | ❑ | ❑ | ❑ | ❑ | ❑ |
| 11. | Technology changes contribute to skills shortage | ❑ | ❑ | ❑ | ❑ | ❑ |
| 12. | Skills shortage is also due to environmental, social and economic factors | ❑ | ❑ | ❑ | ❑ | ❑ |
| 13. | Lack of training contributes to skills shortage | ❑ | ❑ | ❑ | ❑ | ❑ |
| 14. | Skill shortage is a result of companies not recruiting enough black graduate | ❑ | ❑ | ❑ | ❑ | ❑ |
| 15. | Unemployment of skilled refugees, asylum seekers and immigrants contribute to skills shortage in South Africa. | ❑ | ❑ | ❑ | ❑ | ❑ |
| 16. | Skills shortage is a result of high level HIV and AIDS prevalence | ❑ | ❑ | ❑ | ❑ | ❑ |
| 17. | Skills shortage is caused by a higher number South Africans emigrating | ❑ | ❑ | ❑ | ❑ | ❑ |

3. Please mark with an X the best answer on how best to resolve the issue of skills shortage

| No | STATEMENTS | SCALE | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | Agree | Neutral or undecided | Disagree | Strongly disagree |
| 1. | South Africa can resolve the issue of skills shortage by increasing the intake at FET Colleges | ❑ | ❑ | ❑ | ❑ | ❑ |
| 2. | South Africa can resolve the issue of skills shortage by placing more people on SETAs | ❑ | ❑ | ❑ | ❑ | ❑ |
| 3. | South Africa can resolve the issue of skills shortage by combining and integrating all government and private initiative dealing with skills shortage | ❑ | ❑ | ❑ | ❑ | ❑ |
| 4. | South Africa can resolve the issue of skills shortage by training more people and increasing the number of artisans. | ❑ | ❑ | ❑ | ❑ | ❑ |
| 5. | South Africa can resolve the issue of skills shortage by lowering the prices at FET colleges and augment the number of people being trained at SETAs | ❑ | ❑ | ❑ | ❑ | ❑ |
| 6. | South Africa can resolve the issue of skills shortage by recruiting non Africans, | ❑ | ❑ | ❑ | ❑ | ❑ |
| 7. | South Africa can resolve the issue of skills shortage by hiring skilled people amongst the refugees and asylum seeker community | ❑ | ❑ | ❑ | ❑ | ❑ |
| 8. | South Africa can resolve the issue of skills shortage by poaching skilled people from within African | ❑ | ❑ | ❑ | ❑ | ❑ |
| 9. | South Africa can resolve the issue of skills shortage by making use of all the above stated points | ❑ | ❑ | ❑ | ❑ | ❑ |

4. How should government do to ascertain and access the validity of the claims regarding the existence of skills among refugees, asylum seeker and immigrants?

| No | STATEMENTS | SCALE | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | Agree | Neutral or undecided | Disagree | Strongly disagree |
| 1. | Government should collect data relating of everyone entering the country from the point of entry | ❏ | ❏ | ❏ | ❏ | ❏ |
| 2. | Government should collect data relating to everyone entering the country on the flight | ❏ | ❏ | ❏ | ❏ | ❏ |
| 3. | Government should collect data relating to everyone entering the country at arrival point | ❏ | ❏ | ❏ | ❏ | ❏ |
| 4. | Government should collect data at emigration offices in the country from the people applying for a visa | ❏ | ❏ | ❏ | ❏ | ❏ |
| 5. | Government should collect information at emigration offices around the country from the people who are in the process of renewing permits | ❏ | ❏ | ❏ | ❏ | ❏ |
| 6. | Government should collect information at refugee centers around the country | ❏ | ❏ | ❏ | ❏ | ❏ |
| 7. | Government should collect information at universities and Colleges | ❏ | ❏ | ❏ | ❏ | ❏ |
| 8. | Government should collect information from all companies | ❏ | ❏ | ❏ | ❏ | ❏ |

5. What should government do to attract those skilled people that left the country, retain the one's entering the country and exist and train new ones?

| No | STATEMENTS | SCALE | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | Agree | Neutral or undecided | Disagree | Strongly disagree |
| 1. | Government should increase salaries and turn it competitive | ❑ | ❑ | ❑ | ❑ | ❑ |
| 2. | Government should improve the working conditions and safety | ❑ | ❑ | ❑ | ❑ | ❑ |
| 3. | Government should improve the benefits at work | ❑ | ❑ | ❑ | ❑ | ❑ |
| 4. | Government should create integrated policies to train, recruit, retain and employ | ❑ | ❑ | ❑ | ❑ | ❑ |
| 5. | Government should amend existing policies integrate initiatives with private sector and coordinate effort | ❑ | ❑ | ❑ | ❑ | ❑ |
| 6. | Government should do all the above | ❑ | ❑ | ❑ | ❑ | ❑ |

6. What do you think is the socio-economic contribution of immigrants to South Africa as a country?

| No | STATEMENTS | SCALE | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | Agree | Neutral or undecided | Disagree | Strongly disagree |
| 1. | Immigrants create small business and jobs | ❑ | ❑ | ❑ | ❑ | ❑ |
| 2. | Immigrants bring new skills into the country | ❑ | ❑ | ❑ | ❑ | ❑ |
| 3. | Immigrants also change the social fabric of the country | ❑ | ❑ | ❑ | ❑ | ❑ |
| 4. | Immigrants pay tax to government | | | | | |
| 5. | Immigrants bring new knowledge | | | | | |

7. What type of information should you supply the South Africa government upon your arrival?

| What type of information should you supply to the south Africa government upon your arrival? | Yes | No | Not sure |
|---|---|---|---|
| The reason for leaving your country | ❑ | ❑ | |
| The point of entry, | ❑ | ❑ | |
| The mode of transportation used to enter the country, | ❑ | ❑ | |
| The religious and political affiliation at the country of Origen | ❑ | ❑ | |
| The highest level of education | ❑ | ❑ | |
| The work experience, | ❑ | ❑ | |
| Other existing skills not mentioned | ❑ | ❑ | |
| The languages spoken | ❑ | ❑ | |

8. Please mark with an x either yes or no to the best statement

| Refugees and immigrants skills are used to full potential to address skills shortage | Yes | No | Not sure |
|---|---|---|---|
| Government is aware of skills possessed by refugees, migrants and asylum seeker | ❑ | ❑ | |
| Government is aware of the magnitude of skills shortage in the country | ❑ | ❑ | |
| Government has reliable data regarding skills shortage | ❑ | ❑ | |
| Refugees, immigrants, asylum seeker possess the necessary skills to curb the skills shortage in the country | ❑ | ❑ | |
| Skills shortage has an impact on the socio economic development of the country | ❑ | ❑ | |
| Skills shortage contribute to a lack of adequate service to communities | ❑ | ❑ | |
| The country should look amongst the refugee, asylum seeker and immigrants mostly of African origin as an alternative to bridge the existing skills shortage in South Africa | ❑ | ❑ | |
| The country has policies and initiatives to address the issue of brain drain | ❑ | ❑ | |
| The private sector is not doing enough to deal with the issue of skills shortage | ❑ | ❑ | |
| Government and private sector initiative are coordinated to avoid redundancy and wastage | ❑ | ❑ | |
| Education system is in synchronization with the needs of the country to curb skills shortage | ❑ | ❑ | |
| Refugee asylum seeker and immigrants can play a meaningful role in the brain drain phenomenon in South Africa | ❑ | ❑ | |

9. Please mark with an x either yes or no the suitable statement

| When a citizen with skills of any form, leaves South Africa and go work else Country lose? | Yes | No | Not sure |
|---|---|---|---|
| When a citizen leave the country of Origen to work in South Africa for any purposes in short term South Africa win | ❏ | ❏ | |
| When a citizen leave his country to work in South Africa for any purposes in long term the country of origen win | ❏ | ❏ | |
| When a citizen leave the country of origin to work in South Africa for any purposes in long term the country of destination lose | ❏ | ❏ | |
| When a citizen leave the country of origin to work elwhere for any purposes both countries benefit in long term | ❏ | ❏ | |
| When a citizen leave the country for job purposes the country of origin wins via remittance | ❏ | ❏ | |
| When a citizen leaves the country of origin and go elsewhere the destination country benefits via new qualification and knowledge brought by the immigrant | ❏ | ❏ | |
| When a citizen leaves the country of origin and go work elsewhere the country of Origen wins via new knowledge and qualification acquired in the country of destination | ❏ | ❏ | |
| When a citizen leave the country of origin and go work elsewhere that country benefits by accumulating foreign reserves | ❏ | ❏ | |
| When a South Africa citizen leaves and go work abroad elsewhere the country of origin benefits via the transference of new technologies sent home | ❏ | ❏ | |
| When a South Africa citizen leaves and go work elsewhere the country of origen win via exchange of knowledge | ❏ | ❏ | |

Notes:

FET: Further Education and Training

SETA: Service Sector Education and Training Authority

## Annexure B: Letter from the Language Editor

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Port Elizabeth
6045
www.onestopsolution.co.za

**TO WHOM IT MAY CONCERN**

I, Michele van Niekerk, declare that I have done the language editing for the dissertation of:

**Joao Mateus Domingos**

entitled:

**THE SOCIO ECONOMIC IMPACT OF SOUTH AFRICA'S BRAIN DRAIN: AN ASSESSMENT OF EXISTING SKILLS AMONGST AFRICAN FOREIGN NATIONALS AND THEIR CONTRIBUTION TOWARDS THE ALLEVIATION OF SKILLS SHORTAGES AND JOB CREATION IN THE WESTERN CAPE**

Submitted in fulfilment of the requirements for the degree of Doctor of Technology: Public Management in the Faculty of Business at the Cape Peninsula University of Technology.

I cannot guarantee that the changes that I have suggested have been implemented nor do I take responsibility for any other changes or additions that may have been made subsequently.

Any other queries related to the language and technical editing of this treatise may be directed to me at 076 481 8341.

Signed at Port Elizabeth on 11 November 2017

Mrs M van Niekerk