

Economic Impact of North-West University International Students on the Mahikeng Economy

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DECLARATION

I, Ndiva Emmanuel (Student number: 25698982), do hereby declare that this research is my own and that all the contents presented here are original, and that the same work has not been submitted for the award of a degree at this or any other University or institution of higher learning. Information sources and the work of other authors cited in this research have been duly acknowledged.

Signed.....

Date.....

Supervisor.....

Date.....

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ABSTRACT

Migration is not a new issue in the 21st century. Humanity has experienced different waves of human displacement. The unprecedented increase in the number of migrating international students has been fueled by a number of factors. These factors include the recognition of certificates, the availability of certain fields of specialization, family recommendation and the reputation of institutions. At no time in human existence have people stopped moving. Nowadays questions have been raised with regards to the socio-economic impact of international migration. Despite the fact that migration has been associated with the concept of development, the cost of migration remains a permanent debate. As a result of this, migration can be described as a mixed blessing. National and international studies have revealed that international students' migration can contribute significantly to the local business sector and the host institution. Conversely the marginal cost of admitting international students has been reported to have a financial cost to the host nation and the tax payers. It is, therefore, the role of each institution and nation to acquire empirical data and assess the strengths, weaknesses, opportunities and threats of international students' migration in order to harness the positive benefits of these highly skilled immigrants.

The aim of this research was to determine the economic impact of international students at the Mafikeng Campus of the North-West University on the Mahikeng economy. This research used both a qualitative and a quantitative research designs. In order to achieve the objectives of the research, questionnaires and interviews were used as instruments for data collection. The data were collected using a self-administered questionnaires from international students. A simple stratified random sampling was utilised to select the participants. Semi-structured interview schedules were issued to collect more information from the University officials for more in depth understanding of the impact of international students on the Mafikeng campus. A total of 227 international students took part in the survey with a response rate of 100%, while semi-structured interview schedules were administered to officials representing four out of the five faculties of the Mafikeng campus. The Cronbach Alpha test was used to test the reliability of the items found in the questionnaire. The data generated were analysed using SPSS version 22.5 to generate descriptive statistics.

The results from the analysis indicated that the monetary value generated by international students amounted to R33 464 500 in 2017. Using the Jooste *et al.* (2013) multiplier of 0.3, international students generated a total indirect contribution of R43 464 500 to the Mahikeng

economy, based on the expenditures they incurred. The economic significance of international students was found to be important to the Mahikeng economy, with a spill over effect to the local community.

International students also benefited the Mafikeng campus through tuition, thereby increasing the university income. Also it was found that the main factors that attracted international students to the Mafikeng Campus of the North-West University included: the recognition of certificates, reputation of the campus, family recommendation, the relative cost of education, the peaceful environment and lack of good programmes from the home countries. Trend analysis of international students enrolled at the Mafikeng campus indicated a fluctuating pattern over the years because of changes in immigration policies by the Department of Home Affairs. Against the backdrop of the perceived negative impact of international students at the Mafikeng campus of North-West University by the community, it was found out that the economic contribution of international students outweighs the costs incurred by the host institution and the local community.

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CHAPTER 1

INTRODUCTION

1.1 General introduction

Migration is not a new issue in the 21st century. According to Djelti (2017), migration is a natural human behaviour, inherently associated with the origins of humanity. Migration is one of the components used in determining population change over a specific period of time. At no time in human existence have people stopped moving. However, due to some challenges brought about by a large number of immigrants, some recipient countries have decided to reduce the number of immigrants entering their country through what is known as immigration laws or policies. In other words, migration has become very selective. Shachar (2006), indicated that an excellent example of a selective mechanism for recruiting the best and the brightest minds is the Canadian “point system”. The 1967 “point base system”, was the first selective tool for recruiting highly skilled immigrants in the world. The race for talent has necessitated many countries like Australia, New Zealand, Britain and Germany to adopt the immigration policy as an important tool to recruit highly skilled immigrants. According to Shachar (2006), under the Canadian “point system”, all applicants are assessed based on a cumulative test, which consists of the following categories: Education, language proficiency, work experience, age and a bonus point for adaptability.

According to the British Council (2010), South Africa just like Britain, the US, Australia and France, experiences a high rate of inbound international students that exceed the outbound students. For example in 2010, a report by the Higher Education Council for England found that the outbound British students who studied abroad in 2010 was 33 000 against 370 000 foreign students. National and international studies have revealed that international students can contribute significantly to the local business sector and the host institution (Snowball and Antrobus, 2006; Vickers and Bekhradnia, 2007). International student migration, despite its abundant benefits to the host countries, imposes some challenges that need to be addressed. For example, a 2006 study on the impact of international students at Rhodes University concluded that foreign students spent on average R47 281 per annum, boosting the economic activity of the community (Snowball and Antrobus, 2006).

A more elaborate study by Aloyo (2008), criticised the 2006 research at Rhodes University by Snowball and Antrobus, claiming that international students contributed more than R47 281. According to Aloyo (2008) certain expenses were not included in Snowball and Antrobus’

(2006) study, such as the costs incurred by international students like medical aid and the cost of renewing permits. Aloyo (2008) suggested, instead, that international students spent on average about R78 167 per annum. Multiplying this amount by the total number of international students at the time which was 63 579 international students, this generated the sum of R3 134 908 178. Using a multiplier of 0.4, the indirect impact amounted to R4 393 071 449.

A multiplier is the number of times an injection of money in an economy boosts demand and supply creating a further increase in the supply of labour to meet up with the demand of goods and services (Riley, 2015). After multiplying R3 134 908 178 with the multiplier and summing them up, this translated to R4 393 071 449 in the South African economy in terms of gross domestic product. Aloyo (2008) further recommended that such studies should be carried out in the future in other universities to evaluate the real economic contribution of international students. The focus of this research was to analyse the economic impact of international students' migration at the North-West University campus of Mafikeng and the town of Mahikeng.

1.2 Problem statement

The economic impact of international students' migration is still unknown by the host institution (Mahikeng campus of the North-West University) and the local community. According to Altbach and Davis (1999), there is inadequate knowledge on the economic impact of international students. Even though the population of international students constitutes a small percentage of the total students' population at the Mafikeng campus, they affect the host institution and the local community in different ways.

Apart from the financial gains, international students also impact the host countries in different ways. According to Mc Donald *et al.* (1999), they benefit the local labour markets and create jobs. Sriskandarajah (2005) indicated that countries that have a shortage of man power benefit from the supply of labour from sending countries. To add to this, Zigurasa and Law (2006) noted that countries recruit overseas students to increase the skill workforce of their labour. To support this point, Nunes and Arthur (2013) found that the impact of international students' migration is not limited to the confines of the University.

However, international students also have negative impacts on the host institutions and the local community. The impacts of immigrants to the host institution have been associated with the fear of diseases, terrorist activities, crimes and political instability (Vigneswaran, 2007).

South Africans feel that immigrants have a negative impact on South African resources (Crush, 2001; Harris, 2001). The International Education Association of South Africa, IEASA (2004) asserted that an increased inflow of international students would put pressure on the educational infrastructure in South Africa. According to Münch and Hoch (2013), the provision of places to international students incurs costs for all host countries, which is why an additional sum is charged to international students. For example, British and American Universities frequently charge international students higher tuition fees than for domestic students. Migration will always remain a potential threat to national security if the powers that be do not manage it skilfully.

1.3 Background of the study

The North-West University is located in the North-West province of South Africa. According to Drummond and Manson (1991), Mahikeng was previously the seat of the Bechuanaland territory. This name was given by the Barolong boo Ratshidi people and it means place of stones. The incorporation of the white residents into Bophuthatswana in 1980 led to the renaming of Mafeking (colonial capital) to Mafikeng (Parnell, 1986). The University is made up of three campuses: the Mafikeng campus, Vaal and the Potchefstroom campus. However, these campuses are located in different towns. The Mafikeng campus is found in Mahikeng town of the North-West province (Figure 1).

According to Kamsteeg (2011), the North-West University was formerly known as the University of Bophuthatswana (UNIBO). However, with the incorporation of Bophuthatswana into the Republic of South Africa, the University of Bophuthatswana became the North-West University (Kamsteeg, 2011).

The genesis of the government merging universities can be traced back in 2003 when the Department of Education proposed a far-reaching programme merging Universities as an appropriate mechanism to bring about transformation, equity, sustainability and productivity. As a result of this, in 2004, the merger programme reduced 36 institutions of higher education into 23 institutions including the University of North-West (Kamsteeg, 2011). Figure 1 below shows the location context of the North-West University. Potchefstroom is the biggest campus of the North-West University. The Vaal campus is the smallest campus of the North-West University.

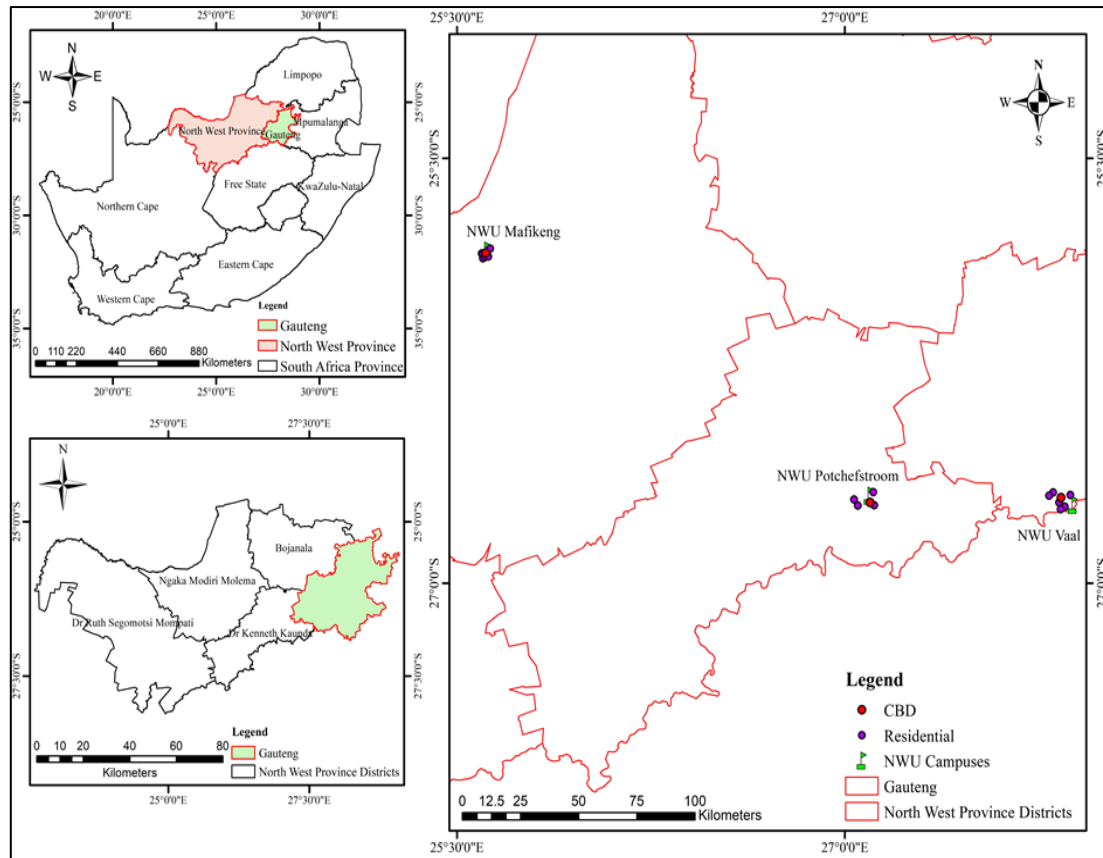


Figure 1: Location map of the North-West University.

1.4 Research aim and objectives

1.4.1 Research aim

The aim of this research was to determine the economic and non-economic impacts of international students' migration at the Mafikeng campus.

1.4.2 Objectives

1. To quantify the economic and non-economic impacts of international students at the Mafikeng Campus of the North-University.
2. To determine the problems and benefits that the Mafikeng Campus of the North-West University encounters in admitting international students.
3. To determine the factors that motivate international students to study at Mafikeng Campus of the North-West University and the problems they encounter.

1.5 Research hypothesis

The research hypothesis was that, in monetary terms, the benefits from international students' migration are more than the problems. Conversely a null hypothesis was that, the problems induced by international students at the host institution are greater than the monetary benefits generated.

1.6 Research rationale

The total number of students in the three campuses of the North-West University in 2014 was 38 900 students. Judging from the figures in Table 1, international students represented just 5.4% of the total of the student population. However their economic impacts to the host campuses constituted the rationale for the study. At a time when public opinion on this minority population (international students) was divided, evaluating their contribution to the local economy of Mafikeng was the motivating factor to undertake this study.

Table 1: The number of international students per campus at the North-West University

Campus	Total number of international students
Potchefstroom	1 464
Mafikeng	563
Vaal	128
Total	2115

Source: International Office of the Mafikeng Campus (2014).

Migration has become very unpopular in rich countries because people overestimate its costs and underestimate its benefits. According to the British Council, Universities UK and IDP (2004), the number of international students is expected to increase to an estimated 5.8 million by 2020 world-wide. Unfortunately, the high rise in the cost of higher education is putting pressure on educational systems in developing countries. There is a high demand for educational services in South Africa. From 1999-2006, the number of international students choosing to study in South Africa as their destination grew by 54.6% (Lee and Sehoole, 2015). According to the International Education Association of South Africa (2006), the number of students seeking education services abroad will grow to 7.2 million by the year 2025.

The United States of America hosted almost a million international students in the last decade (ITA, 2016). However, this number has reduced due to the entering of new emerging markets like South Africa. The entering of South Africa, Singapore and China has created competition, leading to a reduction in the number of international students to the traditional top host nations like the United States of America. The introduction of English language as a language of communication in these new destination host countries also accounts for the reduction of international students to the top host countries. In 2014-2015, the US tertiary schools accommodated 20.3 million students, with the top sending countries being China, India and Korea in that order (ITA, 2016). By 2025, the OECD forecasts that 8 million students will be globally mobile. The benefits of foreign students coming to the U.S. for their higher education are far beyond the cultural diffusion of new ideas and new ways of thinking.

International students bring capital from foreign markets, which is from their various home countries, resulting in the export of an education service through direct and indirect expenses such as tuition fees and living expenses. This benefits the local community for a long period of time depending on the duration of study of these students. Migration contributes to human capital formation. The welfare gains for host nations are that immigrants increase the supply of labour, which increases employment, production and gross domestic product (Ortega and Peri, 2009). Through studies like this one, the government of South Africa will be able to make a decision on whether or not international students should be encouraged to study in South Africa depending on their demands.

1.7 Significance of the research

This research could contribute to changing the opinion of some South Africans who look at immigrants from just one perspective, which is negative. Government officials and some politicians are at the origin of the negative picture on international migrants. The media in South Africa has also played a role in painting the negative image of immigrants in South Africa. The manner in which the media report issues regarding immigrants has led to more hatred of immigrants. They dramatize and amplify crimes caused by immigrants. The declarations on immigrants fuel tension between immigrants and the natives. For example, the Minister of Justice Penuel Maduna during his term of office said “immigrants bring diseases and are parasites rather than adding to the improvement of the South African economy” (Maharaj, 2004). Besides, the Minister of Home Affairs Chief Mangosuthu Buthelezi said “immigrants should not be employed as they take away jobs from South Africans, drawing on

the Reconstruction and Development Programme (RDP) housing and the health system” (Thandi, 2010). The Minister of Housing, Mthembu-Mahanyele indicated in 2003 that the escalating house shortage in the country during her tenure in office was caused by foreigners (Maharaj, 2004).

Some authors like McDonald and Jacobs (2005) claimed that the South African press relies on sensational and reactionary issues in order to sell newspapers. Unfortunately, lack of information has led to misconception about immigrants. International students are not excluded from this campaign of calumny. It may be a strategy to sell newspapers but the consequences are devastating because such declarations cannot encourage international students to have the desire to study in South Africa. Through a cost- benefit analysis the government can have an appraisal of the socio-economic impact of international students. The popular opinion about migration to the source country is that of increasing crime rates and the stealing of jobs. Danso and McDonald (2000), reported that European immigrants are seen in a better light than those from Africa. According to Danso and McDonald (2000), Nigerians and Moroccans are associated with drug trafficking, Congolese nationals with passport racketeering and diamond smuggling, Mozambican and Zimbabwean women with prostitution and Lesotho nationals with the smuggling of gold dust and copper wires. Contrary to this, nothing is said about Thai, Romanian and Bulgarian women who also indulge in prostitution. In addition to this, Crush and Ramachandran (2014), indicated that South Africans believe that immigrants are involved in crimes, steal jobs and benefit from houses that are meant for South Africans.

1.8 Structure of the thesis

The thesis has five chapters. Chapter one highlights the background of the study, problem statement, the research aim and objectives, research hypothesis, rationale and significance of research. Chapter two looks at the trend of international students’ migration from a global perspective. The chapter, additionally focuses on the countries which send and those that receive students. The impacts and the factors that motivate international students’ migration are equally examined. Chapter three outlines the methods used in gathering information and the methods used in analysing data. Chapter four presents the results while chapter five discusses the significance of the results.

CHAPTER 2

LITERATURE REVIEW

1.1 Introduction

This chapter gives an insight of international students' mobility, its evolution over time, the present trend, the economic, political and social consequences and the different theories that explain the migration of highly skilled migrants. According to Statistics South Africa (2014), the government organ that is responsible for cross border movement for both South Africans and non-South Africans is the Department of Home Affairs (DHA). This jurisdiction is currently enshrined in the immigration Act of 2002 (No. 13 of 2002) and the citizenship Act of 1995 (No. 88 of 1995) and their regulations and amendments.

The difference between a tourist and an international student is the purpose and the duration of their visit. It is important to note that statistics South Africa has endorsed the 1998 United Nations definition of an immigrant and a visitor. According to the United Nations (1998), and Lemaitre (2005), an international immigrant is a person who changes his or her country of usual residence for a period of at least a year. A visitor on the other hand, according to the World Trade Organisation and the Department of Economic and Social Information and Policy Analysis Statistical Division (DESIPASD, 1994), is any person travelling to a country other than their usual residence for a period of two months with the purpose being to visit (recreation, visiting friends, relative or medical care). The objectives of the 2002 immigration Act were:

- To facilitate and simplify the issuance of permits.
- To regulate the influx of foreigners by promoting foreign investment through the attraction of skilled qualified foreigners to South Africa.
- To promote tourism in South Africa.

The Department of Home Affairs issues different kinds of visas to international immigrants in South Africa but the most prominent kinds of permits that the department offers are visitors' permit, relatives' permit, work permit and study permits. A closer look at the different categories of permits reveal that students study permits do not fluctuate as much as compared to visitors' and relatives' permits. From 2011 to 2014, the percentage of study permits allocated to international students declined by 1%. It rose by 2% between the academic years 2014 and 2015. Comparatively, relatives' and visitors' permits have been fluctuating between 5 and 8%,

respectively. Table 2 shows the trend of temporal data on documented immigrants in South Africa from 2011-2015, with particular emphasis on students' permits.

Table 2: Trends of temporal permit statistics in South Africa from 2011-2015

Years	Visitor's permit		Relative Permit		Work Permit		Student's permit	
	No.	%	No.	%	No.	%	No.	%
2011	286468	26	36136	34	20673	19	16928	15
2012	44828	31	37612	26	33253	23	20087	14
2013	44828	31	37612	26	33253	23	20087	14
2014	21350	30	14918	21	18184	26	11208	16
2015	21350	30	14918	16	18184	26	11208	16

Source: Statistics South Africa 2014.

Even though South Africa is not among the top five educational destinations for international students from a global point of view, her contribution in the training of an African elite cannot be over-emphasised. It is important to note that, it is the wish of most African scholars that our African universities should improve and compete with the top best universities in the world. According to OECD (2013), the top host countries of international students' migration are the United State of America, the United Kingdom, Germany, France, Australia, Canada, the Russian Federation and Japan. South Africa is a major host country of international students and is classified amongst countries like Spain, Italy, Australia and New Zealand. The 2016 OECD education glance reported that the US (United States), occupies 16% of the world international students market. In the same report, South Africa, Spain, Italy, Australia and New Zealand all occupy 2% of international students. The top source countries of international students in the US are China, India, South Korea, Saudi Arabia, Canada, Brazil, Taiwan, Japan and Vietnam IIE (2013).

1.2 Trend of world international students' migration

According to the HEFCE report (2010), international students' migration has grown faster than overall migration. The top sending countries of international students to the United States of America are China, India, South Korea, Saudi Arabia, Canada, Brazil, Taiwan Japan, Vietnam, Mexico, Iran, the United Kingdom, Turkey, Germany and Nigeria among others (ITA, 2016). China remains the largest single source of international students in the United States of America. In 2014-2015 year, China sent 304 040 students to the USA, an increase of 10.8%

from 2013-2014. Chinese students occupy 31% of all international students in the US (ITA, 2016). According to statistics from ITA (2016), China sent over 710 000 students to study abroad in 2013. The Bureau of Economic Analysis reported that in 2014, the US received over \$9.8 billion from Chinese students from living expenses and tuition fees as US export education services. These Chinese students are interested in the fields of science, technology, engineering and mathematics (STEM). These scarce skill fields attracted 42.2% of Chinese students during the 2014-2015 academic years. The field of business and management attracted 26.5 % and 7.8% for the social sciences. The second highest sending country of international students to the US is India. India sent over 132 888 Indian students to the US in the academic year 2014-2015 up from 102 673 in the previous year (ITA, 2016).

The third highest sending country of international students to the US is South Korea. According to the Department of Commerce in the United States of America, international students from South Korea contribute over US \$ 2.3 billion to the US economy through tuition and living expenses. These students were enrolled in fields as follows: 16.7% in science, technology, engineering and mathematics; 11.9% in business and management; and 11.9% in fine and applied arts. The fourth highest sending country of international students to the USA is Saudi Arabia. The reason behind this is due to the scholarship funds offered by the Saudi Arabian government, especially the King Abdullah Scholarship Program (KASP). The scholarship covers full academic tuition, medical coverage, a monthly stipend and a round trip airfare for both scholars and dependents (ITA, 2016). A majority of Saudi Arabian students are enrolled in the fields of science, technology, engineering and mathematics (42.5%). 22.2% of the students study intensive English and 16.5% study business and management. Table 3 shows the top sending countries of international students in the US.

Scarce and specialized fields of studies like in the Sciences, Technology, Engineering and Mathematics are equally offered in South Africa and added to this, the South African government through the National Development Plan is investing more in the promotion of science and technology to achieve its development plan by 2030. This probably explains why there is a high influx of international students to South Africa. It is obvious that the United States of America is making billions of dollars from the international students market. The top receiving countries for international students for 2016 are in the following order: United States of America, United Kingdom, Australia, France, Germany, Russia, Japan and Italy (Hearps,

2016). According to OECD (2014), South Africa was ranked as the 14th most preferred destinations for international students.

Table 3: Statistics on the top countries sending international students to the US

Place of Origin	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
WORLD TOTAL	564,766	582,984	623,805	671,616	690,923	723,277	764,495	819,644	886,052	974,926
China	62,582	67,723	81,127	98,235	127,628	157,558	194,029	235,597	124,43	304,040
India	76,503	83,833	49,563	103,260	104,897	103,895	100,270	96,754	102,673	132,888
South Korea	59,022	62,392	69,124	75,065	72,153	73,351	72,295	70,627	68,047	63,710
Saudi Arabia	3,448	7,886	9,873	12,661	15,810	22,704	34,139	44,566	53,919	56,945
Canada	28,202	28,280	29,051	29,697	28,145	27,546	26,821	27,357	28,304	27,240
Brazil	7,009	7,126	7,578	8,767	8,786	8,777	9,029	10,868	13,286	23,675
Taiwan	27,876	29,094	29,001	28,065	26,685	24,818	23,250	21,867	21,266	20,993
Japan	38,712	35,282	33,974	29,264	24,842	21,290	19,966	19,568	19,334	19,064
Vietnam	4,597	6,036	8,769	12,823	13,112	14,888	15,572	16,098	16,579	18,722
Mexico	13,931	13,826	14,837	14,850	13,450	13,713	13,893	14,199	14,779	17,052

Source: IIE (2013).

According to Jena and Reilly (2013), the UK was ranked the second most popular host country to international students after the US. The revenue generated from English language courses in the UK for the 2009-2010 academic year was estimated at half a billion Pounds (British Council, 2010). A more recent study by Jena and Reilly (2013), estimated that the revenue generated from English language courses amounted to between 3 to 4 billion Pounds per year to the British economy. The presence of international students' migration to the UK generally has multiple consequences to the British economy as it increases trade, investment, political influence and cultural diversity (Jena and Reilly, 2013). Migration is a characteristic of the United Kingdom. In this regard Bohm *et al.* (2004), forecast that the demand for international students' places will continue to increase to approximately six million by 2020. In the same light, Hatton (2002) reported that immigration flows have persistently exceeded emigration

flows making the UK a country of net immigration. According to Jena and Reilly (2013) international students are the largest proportion of annual migration inflows into the UK.

The problem of the overcrowding of native students was identified by King *et al.* (2010). According to Findlay and King (2010) an estimated number of 33 000 British students were studying abroad against 370 000. The problem he identified was that British students could not compete with international students who had acquired more than one culture. The monolingual nature of British students was a limitation to their career prospect. According to King *et al.* (2010), there is a significant correlation between student mobility and long term international career. In Germany, Parley and Waldinger (2010) found that studying abroad as Erasmus students increased their chances of working abroad by 15 points.

1.3 Theories of migration

Migration has become an effective instrument for income redistribution, poverty reduction and economic growth (Kapur, 2003). The theories of migration have been classified under the neoclassical theories, the neo-Marxist theories and the pluralist perspectives. For the purpose of this research three theories were used to explain the movement of people.

Generally, the factors that motivate individuals to migrate including international students have been described as either “push or pull” factors (Lee, 1966).

1.3.1 The neoclassical theory

This theory claims that migration is caused by the structural requirements of modern industrial economies. According to Lewis (1954) and Ranis and Fei (1961), it is the difference in wages between the developed and the less developed countries that has constituted a pulling force, which is attracting immigrants from low salary countries to high salary countries. Before a decision is taken, an immigrant estimates the cost and benefit of migration before the process begins. It is a mathematical equation that must be negative or positive. When the cost of migration is greater than the benefit, it means that the journey cannot be undertaken. On the other hand if the benefit outweighs the cost, the journey can be done. From that perspective, Moyo and Fairhurst (2014), indicated that South Africa is economically developed compared to other African countries thereby making the country attractive for immigrants. The main advocates of this theory are Lewis (1954), Ranis and Fei (1961), and Harris and Todaro (1970). One of the advantages of the neoclassical theory is that, the free movement of the factors of

production benefit both the source country and the host country (Todaro, 1969). Reason why migration has been perceived by some Asian countries and the Pacific region as an important instrument for development (Bertram, 1986 and Fraenkel, 2006). This is the case of China which remains the first source country of international students in the United States and the United Kingdom.

Contrary to this view is the pessimist ideology which claims that migration aggravates problems in the source countries because of the shortage of skilled workers (Papademetriou, 1985). This point of view was supported by Baldwin (1970) who indicated that migration deprives poor countries of their scarce skilled professionals or potentials.

De Haas (2008), indicated a pluralist view on the impact of migration. According to De Haas (2008) migration has positive and negative socio-economic consequences in both the source and host countries.

2.3.2 The world system theory

The world system theory was founded by Wallerstein (1974). The world system theory suggests that the world is divided into two broad groups: the core and the periphery. The “core” is designated by the developed countries and the “periphery” the underdeveloped countries. According to this theory the opening of new plantations in the periphery led to the creation of transport routes to evacuate raw material to the new world. The world system theory has been supported by Neo-Marxists. For example De Haas (2008), claimed that migration is caused by the inequality of opportunities. These inequalities include economic inequalities, political and social inequalities. This did not only facilitate the flow of goods, capital and ideas but also people. The general notion why people migrate is due to economic reasons. However, the economic reasons alone cannot explain the current trend of migration patterns (Salt, 1987). For example, there has been an unprecedented rise of international students’ mobility which confirms this fact. The world system theory is very relevant to the socio-economic impact of international migration in South Africa.

South Africa is endowed with modern communication infrastructure aimed at increasing trade with the rest of the world, unfortunately these routes also serve as trafficking routes for illegal drugs (UNODCCP, 1999). The system theory to a larger extent depends on networks. Moreover there is evidence that established immigrants act as “Bridgeheads” (Böcker, 1994), reducing the risks as well as psychological cost of future immigrants. According to Massey *et*

al. (1993), a network is defined as a set of interpersonal ties that connect formal immigrants and non-immigrants between the source and destination countries through a bond of kinship, friendship and shared community origin. Network connections are a form of social capital that is utilized by people to gain access to employment abroad (Massey *et al.*, 1993). Mabogunje (1970) defined a migration system as a set of places linked by flows and counter flows of people, goods, services and information.

2.3.3 Global cities

The global city theory posits that the world economy is managed from a relatively small number of urban centres with specialised services. These specialised services include banking, finance, administration and high tech production (Castells, 1989; Sassen, 1991). The highly specialised services co-exist with unskilled labour. In the US, global cities include New York, Chicago, Los Angeles and Miami. In Europe global cities include London, Paris, Frankfurt and Milan. In the pacific global cities include Sydney, Tokyo and Osaka. The development of these global cities has motivated the movement of both the skilled and unskilled immigrants. In summary, these theories have elucidated the causes of migration using basically two factors: the need of manpower and the need of raw materials. However, these theories did not envisage other forms of migrations like students mobility. As a result of this, the researcher probed into the factors that motivate international students' migration.

2.4 Factors that motivate international students' migration

According to Bhandari and Blumental (2011), many factors, real or perceived, can affect students' choices of destination. They include:

- The cost and quality of higher education programmes.
- The value of the degree or professional credentials for future careers.
- The availability of certain fields of specialisation.
- Access to an educational system of a country.
- The geography, history and linguistic potentials of a country.

In the case of Britain, King; Findlay and Ahrens (2010) reported that many factors are bound to motivate British students to study abroad:

- The need to attend a world-class University.
- Opportunity for a unique adventure.

- Prospect for international career.
- Limited spaces in the UK for some courses.
- High fees in the UK.
- Family encouragement.

The factors that influence international students' mobility are many. According to the British Council (2010), the factors that determine international students' mobility include geography, language, accessibility, affordability, historical connections and the perceived quality and employability of certificates. Du Plessis (2010) reported that added to the British Council factors that attract international students to study abroad, cultural and natural diversity are a bonus for South Africa.

A résumé of the factors that affect international students' migration is elucidated to understand how these factors determine the flow and direction of international students' mobility. According to González (2011), the factors that influence Erasmus students' flows within Europe are the size of the host country, cost of living, and distance, amongst others. But for Clark *et al.* (2002) both home and abroad policies are key determinants of mobility. The policies of a country can be very volatile depending on what is at stake. For example, economic and security policies can affect the flow and rate of international students' migration. The UK was believed to be the sixth largest source of international students globally in 1975 (Jena and Reilly, 2013). This figure rose modestly over time reaching 22 400 between the academic years 2005 and 2006. In an effort to understand the fluctuation of the demand of students' visa in the UK, the Oxford Economics Report (2008), found that there was no correlation between visa fees and the number of people who applied for short term visas.

According to the Oxford Report (2008), it was the 2005 June London bombing that had a direct impact on visas application. Likewise, Neiman and Swagel (2009) also concluded that the new visas policies in the United States after the 9/11 terrorist attack did not have a great impact on the flow of travellers to the United States. In a contrary view, Lowel and Khadka (2011) noted that the tightening of US immigration policies after the 9/11 terrorist attack deterred students mobility but the authors further stressed that the 2001 recession exerted a greater negative impact. The benefits of international migration in the UK are not only limited to the cost of accommodation, tuition fee, living expenses or tourism. According to Jena and Reilly (2013), the estimated revenue generated from English language tuition fees is worth about 4 billion Pounds. The global future demand forecast for international students is expected to increase in

the near future. For example, Bohm *et al.* (2004) forecast that international students demand for higher education will increase to approximately six million by 2020. The African continent is actively involved in this global movement of international students. According to Jena and Reilly (2013), the enrolment rates for African international students in the UK have exceeded those of none-European students.

According to Hatton (2000), immigration flows have persistently exceeded emigration flows making the UK a net migration country. Rosenzweig (2006) examined students' mobility in developed countries from a human capital perspective and argued that students move due to the scarcity of educational facilities in their home countries. Aslanbeigui and Montecinos (1998) confirmed that quality differences in education between foreign and domestic degrees are the main motivations for students' decisions to pursue their University studies abroad. According to Mpinganjira (2009) and Cubillo *et al.* (2006) the availability of experts in South Africa has improved the perceived quality of the country's qualifications and also the employability of the qualifications. Among these experts some are international students.

Van Bouwel and Veugelers (2010) found a positive correlation between the quality of education offered in a host country and the size and the direction of flow that international students choose. Finally Kahanec and Králiková (2011) uncovered that the quality of higher education institutions plus the availability of programmes taught in English language is a strong incentive in attracting international students. Altbach and Knight (2007) and Zheng (2010) reported that English language is more and more viewed as the *lingua franca* in high education and research and thus international students choose English speaking countries to enhance their English language proficiency. Other factors that motivate international students' decision to choose certain educational destinations include multiculturalism, safety, weather and the hospitality of the host country (Bourke, 1997; Park, 2009).

2.5 Impact of international students' migration

National and international studies reveal that international students can contribute significantly to the local business sector (Snowball and Antrobus, 2006; Vickers and Bekhradnia, 2007). According to Vickers and Bekhradnia (2007), the best recognised economic benefits of international students' migration for the host nations are living expenses, tuition fees, accommodation costs and tourism. In the findings of Vickers and Bekhradnia (2007), in the United Kingdom a distinction is often made among the different expenditures cited above. For

example non-European students pay fees that are a little bit higher than students from the European Union. The fees paid by students from the European Union is subsidised by the British government. The income generated by non-Europeans students as fees is always reported annually in the HESA published statistics.

Vickers and Bekhradnia (2007) also reported that non-European international students paid 1.5 Billion Pounds as tuition fees for the 2004-2005 academic years. In terms of living expenses, international students spent over 2.5 Billion Pounds in the course of their stay in Britain (Vickers and Bekhradnia, 2007). The aggregate expenditure by international students according to Vickers and Bekhradia (2007) amounted to 3.74 Billion Pounds. Using a multiplier of 1.5, the indirect impact was 5.5 Billion Pounds. Due to the recognised importance of international students' migration to the UK academic system, initiatives were developed to attract more students. For example the Prime Minister Initiative (PMI) was launched in 1999. According to the British Home Secretary, the Prime Minister Initiative had two objectives;

- Revenue generation
- The creation of a “World-Class System” to attract the “best and brightest” from across the world.

In comparison with other countries that created favourable immigration policies, the sum generated in South Africa was small (Aloyo, 2008). For example Australia generated R60 Billion from international students in 2006. The U.K; the second largest recipient of international students after the US, received in excess of R100 Billion in 2007 from international students (Gilles and Luxmoore, 2007).

It is important to indicate how these figures were derived. The first step is identifying a number of variables such as the cost of tuition fees, accommodation cost, cost on groceries, entertainment, costs of renewing permits, and so on. These constitute the direct cost and through a multiplier, the total population size is multiplied by the multiplier to get the indirect impact. The spill over effect of an increase in demand by international students affects different sectors of the economy. An adjustment to match demand to supply creates positive impacts into the Mahikeng economy. These different impacts are referred to as the multiplier effect. Apart from the economic benefits, there are other benefits.

Immigration has been observed to boost productivity through innovation and specialisation. International students contribute in developing the knowledge economy at the Mafikeng

campus of the North-West University. Universities, according to Blunkett (2000), are the 'seedbed for new industries, products and services' and they are the 'hub of business networks and industrial clusters of the knowledge economy'. The North-West University (Mafikeng Campus) and the University of Fort Hare were hailed by the Department of Higher Education and training for their research publications as historically disadvantaged Universities. According to Cloete *et al.* (2015), the two historically disadvantaged Universities in South Africa were hailed for their research publications thanks to the contribution of some African scholars employed in these Universities. The Department of Higher Education and Training (2012) reported that the publication output at the Mafikeng campus increased from 6% to 22% in 2012.

Internationalization in higher education from a global perspective has benefited many countries, including South Africa. According to Coetsee (2014), more than 1500 South Africans and Americans have participated in the Fulbright Exchange Program since 1953. Even during the era of apartheid, the Fulbright program provided opportunities to South Africans regardless of their colour, class and ideology (Coetsee, 2014). The first black South African on record to receive a Fulbright scholarship was Mapule Ramashala (Coetsee, 2014). She received her doctorate degree in education from the University of Massachusetts in 1965. Even after 1994, many South Africans still graduated in the US, thanks to the Fulbright program, including presidents of research councils, provincial premiers, directors, judges and ambassadors (Coetsee, 2014). In addition to that Johnson (2002), indicated that international students promoted Americans values like democracy and the free market system. In other words, international education migration has become an important instrument to develop a nation's soft power.

Studies carried out by the South African migration project (SAMP) indicated that immigrants in the informal sector bring new skills, capital and competitive services needed by South Africans (Thandi, 2010). According to Ziguras and Law (2006), some economically developed countries recruit international students as a strategy to increase their skill labour market due to a decline in fertility and mortality rates. Apart from the above, international student migration promotes the values of a country (Findlay and King, 2010). For example international students promote Britain in the world, helping trade and democracy (Bohm *et al.*, 2004). Shaghafi (2001) and Hall (2004) indicated that many overseas universities have signed mutual agreements that facilitate the exchange of students and enable joint research programs between

local universities and their overseas counterparts. According to Gera and Songsakul (2005), in the “knowledge economy” countries seeking to acquire skills like Canada, the UK, and Australia have relaxed their immigration laws to facilitate the mobility of international students. Most importantly, Altbach and Knight (2007) reported that international students are highly involved in research and teaching services for modest compensation.

The socio-economic contribution of international students’ migration has been made known in the public discourse. According to Alboim and Cohl (2012), public discourse and policy makers do not pretend in hiding their strategies in attracting international students as a source of human capital by offering them permanent residence permits and turning them into ideal candidates for economic immigration and policy development strategies. Belkhodja and Esses (2013) reported that international students are an important source of revenue to the Canadian economy. In addition to that, Belkhodja and Esses (2013) noted that international students bring cultural diversity and creativity, notably in regions that are less diversified.

In a knowledge based economy, educated people and their ideas have become the basis for establishing the wealth of nations. The significance of knowledge as an engine that drives social and economic prosperity has been acknowledged by businesses, industries and the government. In this regard Bosetti and Walker (2010), indicated that knowledge has become the most important currency in the global economy. In a highly competitive industry like the knowledge economy, the surviving strategy to remain a world class university is attracting the best and the brightest researchers. Even though the different criteria used in ranking universities are questionable, Marginson and Van der Wende (2007), indicated that research is the most important single determinant of global university reputation indicator that is available because it is unanimously merit based.

Despite the advantages cited above, international students may have some negative socio-economic impacts to the host country. The 1999 Green Paper on International Migration suggested that immigrants have a negative impact on resources in South Africa (Harris, 2001). On a global scale, the investment needed by the global knowledge economy is straining economies in both the developed and developing regions (OECD, 2005). Even though the US has the best system of higher education in the world (The Economist, 2005), the system also faces some challenges. According to Zemsky *et al.* (2005) and Newman *et al.* (2004), even the US faces some challenges investing more on education. As a result of this, the US has decided

to retire baby boomers that require other social benefits like health care security, low crime, national security and tax relief.

Immigrants are said to be having a negative impact on the economy, employment, health, education, social security, housing and crime. Vertovec (2002) asserted that there were a larger number of emigrants than skilled immigrants. According to Vickers and Bekhradnia (2007), there are two costs that British universities incur from international students. The first cost is that of subsidising international students from the European Union. The second cost is the cost Universities in the United Kingdom incur for providing for all international students.

The situation is quite different with German universities. According to the findings by Vickers and Bekhradnia (2007), international students cost the German government One Billion Pounds every year. The German government interest on international students is not based on the financial gains universities maximise from international students but it is based on the national interest that accrues from these students. In Germany, the State subsidises international students as a strategy of attracting more international students. Even though the German government spends One Billion Pounds every year on 250 000 students every year, the government is willing to pay the universities to admit more international students because of the benefits they bring (Vickers and Bekhradnia, 2007). Beyond the financial benefits, there are other benefits such as pedagogic benefits that come from the creation of a multilingual learning environment and international students tend to become goodwill ambassadors who promote values of host countries in their source countries. Also certain programs or courses are sustained by international students.

Apart from that the migration of international students to a particular region may lead to displacement effect. Authors who provided excellent examples of displacement effect by migrants were Borjas (1994), and Friedberg and Hunt (1995). However, Dustmann *et al.* (2010) found very little evidence on wage effects in their review of the U.K. experience. Brucker and Jahn (2010) concluded that a 1% increase in the German labour force through immigration reduced wages by less than 0.1%. An important way of measuring the impacts of immigrants to the host nation is evaluating the rate at which they access and use social services. There is a variation in the use of welfare services in different countries. Baker and Benjamin (1995) found that the Canadian experience on immigrants' benefit of the welfare system was different. Immigrants depend less on social grants, except for refugees who depended more on unemployment benefits, social security and housing than the natives. A central policy question

is whether immigration overweighs the receiving country's social benefit system, welfare services, educational system and the health care sector as compared to what immigrants contribute into the system through taxes (OECD, 2000).

The earliest studies on fiscal effects of immigration for the US yielded conflicting results. Passel and Clark (1994) calculated that immigrants paid \$27 billion more in taxes than the benefits they derived from the use of the US social and educational services. However, Huddle (1993) argued that immigrants cost the state \$40 billion annually in 1992. Borjas (1995), criticised early studies on the contribution by immigrants to the US welfare system for making unreasonable assumptions. Estimating that the net impact of immigrants was \$16 billion against \$60 billion benefit depending on the assumption made required a concise and precise calculation. When immigrants discover a country's welfare system is more accessible and favourable than another, it may cause a "welfare magnet". In a pan-European analysis, Büchel and Frick (2005) noted the considerable differences that existed across European countries. They found that immigrants depended more on social benefits in Denmark than other European countries.

In spite of the costs incurred by countries as a result of the presence of some categories of immigrants (refugees) in the host countries, a number studies have concluded that tourism is the fourth economic benefit that host countries enjoy from international students. International students are permanent tourists who pull along their families, generating revenue to the host countries. According to an Oxford Economic report from the University of Sheffield (2013), international students contributed 120.3 million Pounds to the Sheffield region for the academic year 2012-2013. The report used data from the international passenger survey (IPS). The IPS provided detailed expenditure on international visitors. Many studies abound showing the contribution of international student migration and their impact on the tourism industry.

The approach that was used in the University of Sheffield was a robust cost analysis approach. The direct contributions by international students were:

- Fees 73.9 million Pounds.
- Living expenses 76.8 million Pounds.
- Friends and relatives 5.9 million Pounds.

A similar study was undertaken in France in 2014. It was estimated that the overall benefits that international students bring to the French economy far outweighs the cost. According to

report from Campus France (2014), international students cost the state 3 Billion Euros per year. On their part, international students contribute 4654 Billion Euros every year to the French economy. This generated a net benefit of 1.7 Billion Euros per year. The expenditures derived were obtained as follows:

- 3250 million Euros on daily consumption for goods and services.
- 563 million Euros on tuition fee.
- 364 million Euros on French line operators.
- 466 million Euros on international visitors, that is including friends and relatives.

Even though most of the international students in South Africa are from the African continent, their impact on the South African economy is significant. According to the International Education Association of South Africa (2004), there were 47 000 international students in South Africa. Based on this figure, the majority of these students were from Africa as indicated by Donaldson and Gatsinzi (2005). According to Donaldson and Gatsinzi (2005), the total revenue generated by higher education institutions in South Africa amounted to R 21.5 Billion in 2004. Out of the R 21.5 Billion, international students generated R1.4 Billion. In the findings of Donaldson and Gatsinzi (2005), it was revealed that international students spent between R 5000 and R 12000 on relatives or friends who visited them in the course of their studies in South Africa.

Three quarters of international students, based on the Donaldson and Gatsinzi (2005) finding preferred South Africa as a study destination because the cost of living was affordable and the fees were low compared to other destinations in Europe and America. According to the same finding, about 20% of African students do not travel due to financial reasons. Among the other reasons that hinder students from involving themselves in tourism were lack of personal transport, lack of safety, hostility toward foreigners and to a lesser extent the busy schedule of the students. Added to this, most of the students indicated that they were willing to return to the touristic sites with their families, making the industry a potential lucrative market. The presence of international students as suggested by Donaldson and Gatsinzi (2005) contributed in creating a socio-cultural awareness among South Africans which helped in fighting against xenophobia. Due to the socio-economic impact of international students' migration to the South African economy, Donaldson and Gatsinzi (2005) recommended the following:

- Tourism marketers should work in close collaboration with higher education institutions in order to exploit the presence of international students' market segment

exhaustively. It should be noted this strategy is yielding positive results as students receive messages from the tourism and the transport agencies occasionally.

- Tourism marketers should think of marketing strategies aimed at incentivising international student tourism.

2.6 Challenges of South African education system

There is no education system in the world without problems. Even the US is facing challenges with her educational policies. What is primordial is the ability to identify the problems, then craft a strategy to remedy the challenges. A lot evidence abounds to prove that state funding in higher education has been declining over the years in South Africa. This state of affairs has led to a lot of problems across South Africa. According to Duderstadt (2007), government subsidies in higher education have been declining while students' fees keep rising. In addition to that, a report by the OECD (2005) indicated that the investment demanded by the global knowledge economy is straining economies in both the developed and less developed countries. This has led to a situation whereby cost per student has increased faster than inflation rate.

According to the World Bank Report (2008), funding in higher education in Sub-Saharan Africa has declined significantly in recent decades as priorities have shifted toward sectors such as health care, basic education and infrastructural development. To confirm this trend in South Africa, Karodia *et al.* (2016) reported that between 2000 and 2012, student fees across all universities doubled from R7.8 to 15.5 billion, meaning that within a period of twelve years students had to find R7.7 billion to fill the deficit created by the government. According to Statistics South Africa (2015), the consumer price index on tertiary education rose by 9.3%. Likewise Karodia *al.* (2016) indicated that the Department of Higher Education is aware of the decline in state funding in higher education but blames this on the unfavourable economic situation of the country. According to Karodia *al.* (2016), public funding on higher education has dropped by 30% in the last decade.

African Universities were established as engines of development with the primary aim to assist emerging independent States to modernise, accelerate human capital formation and also address basic existential challenges encountered by the local population (Ayayi *al.* 1996). More importantly, it should be noted that higher education is a crucial means for reducing inequality in the society as illustrated by the case of Brazil to demonstrate the important role higher education played in mitigating inequality in the society (Pillay, 2011). As indicated by the

report of the Ministerial Committee for the Review of the Funding of Universities (2013), one of the reasons for funding Universities in South Africa is to address the plight of disadvantaged institutions aimed at making these institutions more competitive and internationally recognised. However, a curious observation at the percentage of the Gross Nation Product (GNP) reserve for higher education in South Africa compared to other middle income countries raises some questions. Figure 2 shows the percentage of South Africa's GDP reserved for higher education in comparison to other countries in 2012.

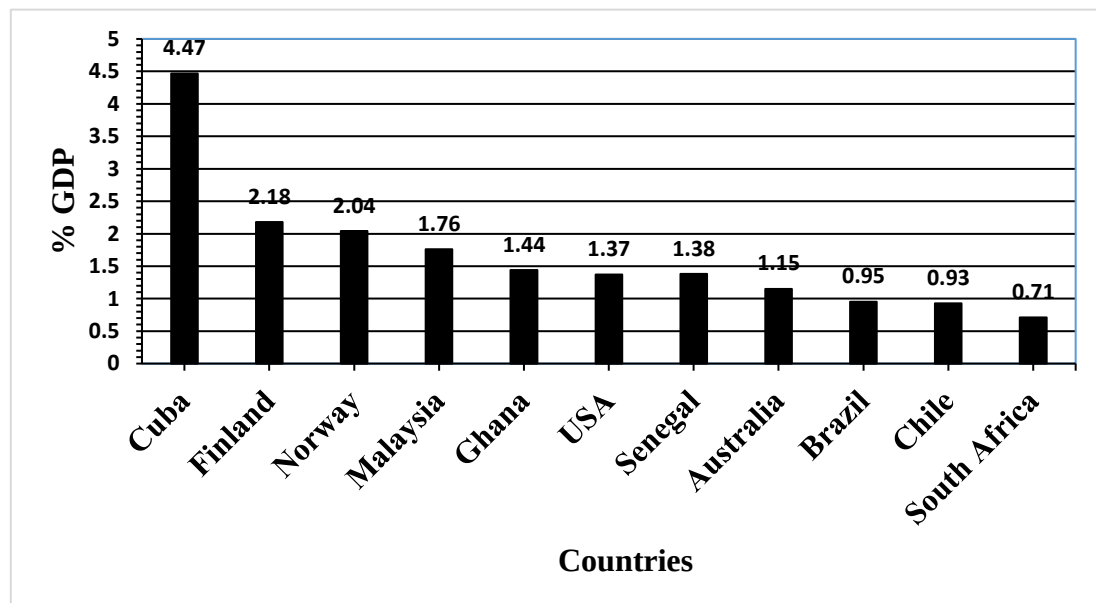


Figure 2: Expenditure on higher education as % of GDP per country, 2012. Source: The ministerial committee report for the review of the funding of universities, South Africa (2013).

To cap it all, it is important to share the misgiving of Karodia *al.* (2016), who stressed that if the noble aspiration of the National Development Plan was to be attained by 2030, the cost of university education which sparked the cause of the students protest across South Africa must be addressed without which the vision for 2030 for higher education will be hampered.

2.3.3 Ageing professoriate

One of the problems that South African universities are facing is that of building the next generation of academics. According to a report by the Ministerial Committee for the Review of the Funding of Universities (2013), the South African university system is largely an undergraduate system with masters and Ph.D. enrolments constituting only 6% of the total enrolment. Therefore, the low enrolment rates in masters and Ph.D. will have an impact on the production of the next generation of scholars in South Africa. According to Mabelebele (2015),

the South African higher education system produces approximately 1800 Ph.D. graduates per year. Mabelebele (2015) further elucidated that over 20% of South African professoriate will be retiring within 7 to 10 years. To confirm this point, The National Planning Commission (2012) prioritised an increase in doctoral output from 1876 in 2012 to 5000 by 2030. This will be achieved through the increase of staff holders with Ph.D. As suggested by the National Planning Commission (2012), by 2030 70% of university staff members will be Ph.D. degree holders. Cloete, Mouton and Sheppard (2015) indicated that the National Research Foundation and the Carnegie Corporation had highlighted the need for South Africa to increase the number of Ph.D holders as a means of renewing the ageing professoriate.

2.3.4 Low participation and attrition rates

According to a report by the Ministerial Committee for the Review of Funding for South African Universities (2013), the enrolment rates for African and coloured students remain below 15% compared to those of students from the white and Indian population groups (59% and 46% respectively). The report further indicates that the target of 30% enrolments in science, engineering and technology has not been met. Additionally the report indicated that 50% of South African students who enrol in universities drop out before graduation. However, the NPC and the Green Paper for Post School Education and Training were unanimous that the South African educational system can become a vibrant knowledge economy by increasing the enrolment rate to 1.5 million by 2030.

2.3.5 Problems that international students encounter

Even though international students' migration benefits the host countries and the host institutions, the fact remains that some of these students encounter serious problems. Some of the benefits of international students' migration include financial gains by the host country in general and the host institution in particular. According to Donaldson and Gatsinzi (2005), international students contributed R1.4 Billion to the South African economy in 2003. Another study by Aloyo (2008), estimated that international students contributed R4.4 Billion to the South African economy in 2007. It has been observed that the most recent financial contribution on international students' migration shows a more significant contribution than the previous data. The reason behind this financial increase can be due to the fact that the top host countries have improved on their recruitment strategies, there by attracting more international students. Another reason why the revenue generated from international students is improving year after year can be due to the variables used to sum up their contribution. For

example, some studies have considered tourism as an important source of revenue to the host nation. At an international level, a study by the Institute of International Education (2010), estimated that international students contributed \$22.7 Billion to the US economy in 2011.

Comparing this sum with the most recent information on the financial contribution of international students' migration in the US, the figures show that there has been a significant increase. To prove this point, a study by Dominguez-Whitehead and Sing (2015), revealed that international students contributed 30.5 Billion dollars to the US economy in 2015. In addition to this, the Institute of International Education (2010), reported that international students, created 373 000 jobs to the US economy in 2015. It is, therefore, evident that international students have become an important source of economic contribution to both the host countries and the hosting institutions (Paltridge *et al.*, 2012). Apart from living expenses, tuition fees and accommodation, international students are also a profitable segment of the pleasure and travel market, as indicated by Chen and Kerstetter (1999). In addition to the financial benefits, the presence of international students in Australia increases public commerce, strengthens diplomatic ties, enriches the educational climate through cultural plurality and enhances the awareness of diversity among the native students (Adams *et al.*, 2011). In other words, international students bring cultural diversity to the host countries (Olivas and Li, 2006).

Despite all these positive contributions, very little is known about the challenges of international students. One of the objectives of this research is to highlight the challenges international students encounter at the Mafikeng campus of the North-West University. There is evidence that posits that international students face a variety of challenges to their host nations and institutions. Some researchers are of the opinion that if the plight of international students is improved, their productivity will increase, thereby contributing more to their host institutions in particular and the local economy in general. The plight of international students is not only known in South Africa. It is a world- wide phenomenon which varies from country to country.

There are documented reports of international students discrimination in Australia (Marginson *et al.*, 2010), New Zealand (Butcher and McGrath, 2004) and Japan (Brender, 2004), just to name a few. According Alghamdi and Otte (2016), international students encounter the following problems: language barriers, social integration and financial challenges in the US. In addition to language barrier, international students also face social integration and financial difficulties. Khoo *et al.* (2002), reported that international students also suffer from depression

and cultural shock in their host countries. Yeh and Inose (2003) demonstrated that cross-cultural differences in social interaction can lead to acculturative stress. Cultural stress or shock emanates from psychological problems which include ethnic and racial discrimination, homesickness and alienation (Yeh and Inose, 2003).

The problems that international students encounter in the course of fulfilling their self-prophecy, differ from country to country. For example, Spencer-Rodgers (2001) reported that the problems international students face in the host country include stereotypes, which is a negative image on foreigners or those with different ethnicity or race. To examine this opinion, it is important to look into the problems international students encounter at the Mafikeng campus of the North-West University. A flash back on the history of South Africa demonstrates that the dregs of racism, xenophobia, social exclusion and injustice still persist in some South African universities.

The Department of Education (2008) noted that Higher Education Institutions in South Africa were not separated from the wider South African society because discrimination and xenophobic sentiments were manifested in some universities in South Africa. It was further revealed by the report of the Ministerial Committee on Transformation, Social Cohesion and the Elimination of Discrimination in Public Higher Education Institutions that while racism continued to be a problem in the South African Higher Education system, xenophobia, sexual harassment and discrimination were equally pervasive (Department of Education, 2008). In line with the problems some South African universities encounter, Badat (2010) noted South African universities continue to remain powerful mechanisms of social exclusion and injustice that succumb to external conditions linked to the wider society.

There is a perceived negative perception that South Africans have on foreigners, which is that they take away their jobs, promote crimes and spread of diseases (Mattes *et al.*, 2000). The prejudice appears to be more serious with black African migrants compared to the whites (Human Rights Watch, 1998; Morris, 1998). Whatever the case may be, some of the challenges that international students grapple with in South Africa were created by the students themselves because some of the information provided by these students are not genuine. Some researchers like Harman (2003), are of the opinion that international students face serious financial challenges. In addition to this, Marginson *et al.* (2010), confirmed that the financial challenges that international students encounter in the course of their study include the challenge of making ends meet and the constant request for money from family members. Sometimes even

when these students succeed in having jobs, they are constrained by the number of hours to work. The financial plight of international students is known by some faculty members (Trice, 2003).

Despite this awareness, some of these researchers fail to pinpoint the genesis of the problem. According to Marginson *et al.* (2010), international students start facing challenges from the time they begin to fake their bank statements showing that they are financially viable. One of the requirements to admit international students in countries like Australia, Canada, and South Africa, among others, is proof of sufficient funds to cover all their expenses during the course of their study. It becomes a problem when these students start facing financial pressure without the funds that were purportedly in their possession. Regardless of who is at the origin of these challenges, Alghamdi and Otte (2016) and Mazzarol and Soutar (2002) propose that it is important to come to the aid of these students as this will improve their productivity and boost the reputation of the hosting country. In addition to coming to their aid, Paltridge *et al.* (2012) proposed that volunteer jobs can play a pivotal role in supporting international students.

2.7 Summary

Chapter two discussed trends in world international students' migration, the factors that motivated international students' migration, the economic impacts of international students' mobility, the theories of migration, challenges that the South African higher education encounters and the challenges that international students encounter in their host country. Based on findings from the literature review, international student migration rate is on the rise. The top education destinations for international students are the U.S, the U.K, Germany, France, Australia and Canada, among others. The factors that have motivated international students migration include: the cost and quality of higher education programmes, the value of degree or professional credentials for future careers, the availability of certain fields of specialisation, the need to attend a world-class university and family encouragement, among others.

Some of the positive contributions of international student migration are: international students' migrations contribute to the local business sector, international students' migration is an important source of revenue to institutions of higher learning and international students' migration contributes to diversifying the cultural composition of the host institution. Lastly, international students contribute to the creation of knowledge in the knowledge economy. The

cost of providing places for international students is the main burden that the hosting institution and government incur as additional cost to the cost of higher education.

Among the problems that higher institutions of learning experience in South Africa are: a decline in state funding in higher education, aging of professoriate, higher attrition rate of students and low participation rate. It was also established that international students encounter some problems which include: language barrier, cultural shock, integration, financial stress and discrimination.

CHAPTER 3

MATERIAL AND METHODS

3.1 Introduction

This chapter presents a literature-sourced methodologies and instruments that were used to collect and analyse data. This study used both a quantitative and qualitative research design. Questionnaires were used, and then analysed quantitatively to generate descriptive statistics such as bar diagrams, pie chart and histograms. Two sampling types were used: stratified random sampling and purposive sampling. International students from 23 countries were stratified (statistics from International Office, Mafikeng Campus, 2017). From these strata, the participants were selected randomly. The selection was guided by criteria such as gender and the number of students from each country. Information on the country of origin, faculty and department were obtained from the Registrar's Office. Purposive sampling was used to select participants who were anticipated to possess valuable information on the subject matter. It is important to note that a majority of African states were represented in the sampling scheme. Five faculties were approached to gather more information. Four responded positive and only one faculty didn't partake in the interview schedule. The officials needed were not available at the time of the exercise.

3.2 Data collection from participants

The research used self-administered questionnaires and semi-structured administered interview schedules. These two data collection methods have advantages and disadvantages. However, after examining the benefits of using a mixed method and the problem identified, the limitations were minimised as noted from the literature. According to Bryman (2006), a mixed method approach is defined as the combination of quantitative and qualitative research within the same project. Many reasons abound for the use of a mixed method design. Bryman (2006) advocated the use of a mixed method approach with the argument that each approach has advantages despite the challenges of triangulation. Secondly, Collins and O'Cathain (2009) and Morse (2005) supported the argument that the use of a mixed method design is aimed at maximizing the many opportunities provided by a mixed method design. Added to the above, Caruth (2013) indicated that a mixed method design has become the valid alternative to either the quantitative or qualitative research designs. All these arguments were consolidated by King (2002), who

reported that questionnaires are often aided by other forms of data collection methods such as interviews, observations and secondary data.

Creswell and Plano-Clark (2011) proposed four types of a mixed method designs. These designs include the following;

- The triangulation design. The objective of the triangulation design is to obtain different but complementary data.
- The embedded design. The objective of an embedded design is that each research design must support each other. That is one design will play a primary role while the other plays the secondary role.
- The third is the explanatory design. The aim is to mix both the qualitative and quantitative data but it is worth noting that the researcher first begins with the quantitative data. The qualitative data supplements the quantitative data to better understand the problem statement and better answer the research questions. This research adopted the explanatory method as a questionnaire was first issued to international students before interviews were conducted with some administrators.
- The exploratory design. In this kind of design, the researcher collects qualitative information and from what they gathered from the qualitative data, a questionnaire is designed to complete the information.

3.2.1 Advantages and Disadvantages of Questionnaires

According to Abawi (2013), questionnaires have the following advantages:

- Questionnaire administration is less costly and easy to gather information from a large number of people spread over a large geographical area.
- Questionnaires limit participants' bias because the same questions are asked to all the participants. Through their responses it will be easy to detect false answers. This is very easy to do if the research carries out a pilot study.
- Some people feel more comfortable responding to questionnaires than an interview.
- Many people are familiar with questionnaires.
- The tabulation of closed-ended responses are easy and straight forward.

Despite the above mentioned advantages, the use of questionnaire as a data collection instrument has some limitations (Bird, 2009). These limitations include:

- Participants may not complete the questionnaire resulting in low response rates.
- Participants may not interpret questions the same.
- Due to the fact that participants do not disclose their identity, it will be difficult to know who completed the questionnaire and who did not.
- Once the questionnaire has been distributed, it will be difficult to make amendments regardless of the fact that the researcher has gained additional information compared to interviews where the researcher can improvise questions in the course of an interview.
- There is a high probability that some participants may not understand certain questions (Solana and Kilburn, 2003).
- Another limitation in surveys is that they do not explain “why” things are the way they are but rather surveys are good at explaining numbers (Mathers *et al.*, 2007).

Besides questionnaires, interviews also have advantages and disadvantages.

According to Abawi (2013), there are three types of interviews in a qualitative research design but note should be taken that the researcher used a structured interview. The three types of interviews are:

- Structured interviews. With a structured interview, the questions and the order of the questions are well scheduled. The researcher may provide more highlight to the question but the interviewer is not expected to modify the order of the questions and the wordings.
- Semi-structured interview. The main characteristic of a semi-structured interview is that the interviewer can modify the questions of the interview. The interviewer may also decide not to follow the chronology of the questions.
- In-depth and focused group discussion. A focused group discussion is a structured discussion with the purpose of stimulating a conversation around a specific topic. This type of discussion is less formal and not structured. It is aimed at collecting complex information from different participants because they may not have the same experience. Focused group discussion gives the possibility to a researcher to cross-

check one individual's opinion with other opinions. In a focused group discussion, individuals are more open and dynamic within a group discussion. Because of this fact the interaction can enrich the quality and quantity of the information needed.

Abawi (2013), found some advantages of interviews over other data collection instruments. Some of these advantages are:

- Interviews are good in collecting complete information with greater understanding. As a result of this, interviews have a high response rate. This is due to the fact that interviews require a one- on- one session between the interviewer and the participant. In other words questions that participants may not understand will be clarified by their interviewer creating a high possibility of high response rate contrary to questionnaires.
- Interviews are more personal compared to questionnaires and as a result, the response rates are higher compared to questionnaires.
- Structured interviews allow for more control over the order and flow of questions.
- The use of interviews as a method of data collection allows for the possibility of making changes during an interview schedule based on the first results collected from a questionnaire. This is very useful in a mixed method research.

In spite of the advantages, interviews also have limitations (Abawi, 2013). These disadvantages include:

- Data analysis is time consuming because of transcription.
- Interviewing a large number of participants can be tiring.
- The risk of bias is high due to the fact that the interviewer may guide the interviewee to a particular line of reasoning. Also in case of long interview, due to fatigue the interviewer may be biased.

3.3 Population and sampling

3.3.1 Population

The population of this study comprised of international students from the Mafikeng Campus of the North -West University in the year 2017. This population represented the universe.

3.3.2 Sampling

The Taro Yamane equation (Yamane, 1967) was used to determine the sample size as shown in equation 1.

$$n = \frac{N}{1 + N \times (e)^2} \quad (\text{Equation 1})$$

Where;

n = sample size

N = Total population

e = Error tolerance or margin of error

From Equation 1, using the 2017 total population which was 523 and an error of tolerance of 5%, the sample size can be determined as indicated by solving from equation 2 as;

$$n = 523 \div 1 + N(0.05)^2 \quad (\text{Equation 2})$$

Giving a population size of 227. The 2017 population size was obtained from the International Office. The targeted sample size of 227 international students was achieved because all the 227 students took part in filling up the questionnaire. As a result of this, the response rate was 100%.

3.4 Data analysis

Qualitative data was obtained using self-administered interviews and analysed using the thematic network analysis (Attride-Stirling, 1998). In addition to that, quantitative data was also obtained using a questionnaire. All the data were coded in order to allow for new impressions to shape the interpretation in different and unexpected directions. Descriptive statistics (mean, mode, median and frequency) were used to describe the findings. Data were analysed using SPSS version 22.5 and data presented using graphs, bar charts and pie charts for analysis. Reliability was assured using the Cronbach alpha. The Cronbach alpha is a reliability coefficient that is designed to test the degree of accuracy on the type of answers collected from participants (Cronbach, 1955). The Cronbach alpha was determined through using SPSS. Any Cronbach alpha value that was below 0.74 was considered unacceptable. The SPSS software provided options for deleting erroneous answers. Through the process of deleting erroneous answers, the Cronbach alpha value was improved.

A comparative survey was done to assure internal validity. After summing up the accommodation cost, tuition fee and living expenses to get the direct contribution of international students at the Mafikeng campus, it was very necessary to calculate the indirect cost. To achieve this, the marginal propensity to consume was determined. After determining the marginal propensity to consume (mpc), it was multiplied by the direct cost. The value obtained was added to the direct cost to determine the indirect cost called the multiplier effect. According to Okwori *et al.*, (2016), the marginal propensity to consume is defined as a change in consumption to a change in income. This is represented as:

$$MPC = \frac{\Delta c}{\Delta y} \quad (\text{Equation 3})$$

Snowball and Antrobus (2006) used a multiplier of 0.25 (Du Plessis, 2010) and Vickers and Bekhradnia (2007) used a multiplier of 1.5. Aloyo (2008) used a multiplier of 0.4. The consumption multipliers of the following countries were calculated including South Africa (Batini *et al.*, 2014) and the results are as in Table 4.

Table 4: Consumption multiplier per country

Countries	Studies	Multipliers
Bulgaria	Muir and Weber (2013)	0.2
Romania	Stoian (2012)	0.5
South Africa	Jooste <i>al.</i> (2013)	0.3
China	Wang and Wen (2013)	1.7

Source: Batini *et al.* (2014).

Since this study was undertaken in South Africa, a consumption multiplier of 0.3 was used to calculate the indirect impact of international student migration at the Mafikeng campus of the North-West University and in the town of Mafikeng. The marginal propensity to consume is connected to the multiplier effect. John Maynard Keynes is the founder of the multiplier effect. According to the theory of the multiplier effect, an initial change in aggregate demand can have a much greater final impact on the level of equilibrium on the national income (Riley, 2015). This is the multiplier effect, and it is caused by an injection of demand into the circular flow of

income, stimulating a further round of spending. In this way, Mr. A's spending becomes Mr. B's income. The greater the propensity to consume, the greater the multiplier. The multiplier effect is calculated as:

$$M = 1/1 - mpc \quad \text{(Equation 4)}$$

When we add the marginal propensity to consume (mpc) and the marginal propensity to save (mps), the answer must be 1. Therefore $mpc + mps = 1$. In simple terms, if the mpc in South Africa is 0.3 then the mps is 0.7. In other words, for any additional income that we get in South Africa, 30% of that additional income will be consumed and 70% will be saved.

3.5 Ethical Considerations

Ethical considerations involve the principles governing the moral comportment of a researcher when undertaking research. Consent involves the procedure by which an individual decides whether or not to participate in a study. The researcher's task is to ensure that the participants have a complete understanding of the purpose and methods to be used in the study, the risks involved and the demand placed upon them as participants (Best and Kahn, 2006; Jones and Kottler, 2007). The participants must also understand that they have the right to withdraw from the study at any time. In summary, the principles of ethics are: do no harm, privacy and anonymity, confidentiality, informed consent, rapport and friendship. This research was undertaken with respect to the above principles. The research was submitted to the Ethics Committee of the North-West University for Evaluation. An ethical clearance certificate was obtained from the North-West University Ethics Regulatory Committee (NWU-RERC) in order to collect data.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents results of the economic impact of international students at the Mafikeng campus of the North-West University to the Mahikeng economy. A questionnaire was used to collect information from international students ranging from demographic characteristics, living expenses, tuition fees, accommodation cost and the factors that motivated international students to study at the Mafikeng campus of the North-West University. From the monthly and yearly expenditures, direct and indirect contributions were determined. International students in the course of pursuing their dreams in the host nation involved themselves in economic activities. These activities had economic impacts to the host institution and the local economy. International students are high consumers in Australia, thereby making the education sector in Australia the third sector of the economy that contributes enormously to the Gross Domestic Product of the country after tourism and transport (Zigurasa and Law, 2006). Hence international students at the Mafikeng campus of the North-West University boosted economic activities through the consumption of goods and services thus contributing in key sectors of the Mahikeng economy like transport, housing, banking, insurance and so on.

4.2 Demographic characteristics

Statistics from the International Office of the North-West University revealed that the Mafikeng campus of the North-West enrolled 523 international students in 2017. The total number of international students at the Mafikeng campus has been fluctuating over the years. From 2006 to 2012, the number of international students at the Mafikeng campus declined. The highest number of international students enrolled at the Mafikeng campus was recorded in 2006 and the lowest number was in 2016. This can be attributed to the policies of the Department of Home Affairs and the unprecedented increase in xenophobic attacks. From Figure 3, it can be observed that the greatest decline of international students enrolment at the Mafikeng campus was in 2006. Between 2007 and 2011, there has been a steady decline in international students enrolment. There was a rise in the number of international students enrolment between the years 2012 and 2014. However, between the years 2015 and 2016, international students enrolment declined. Last year (2017), international students enrolment experienced an increase.

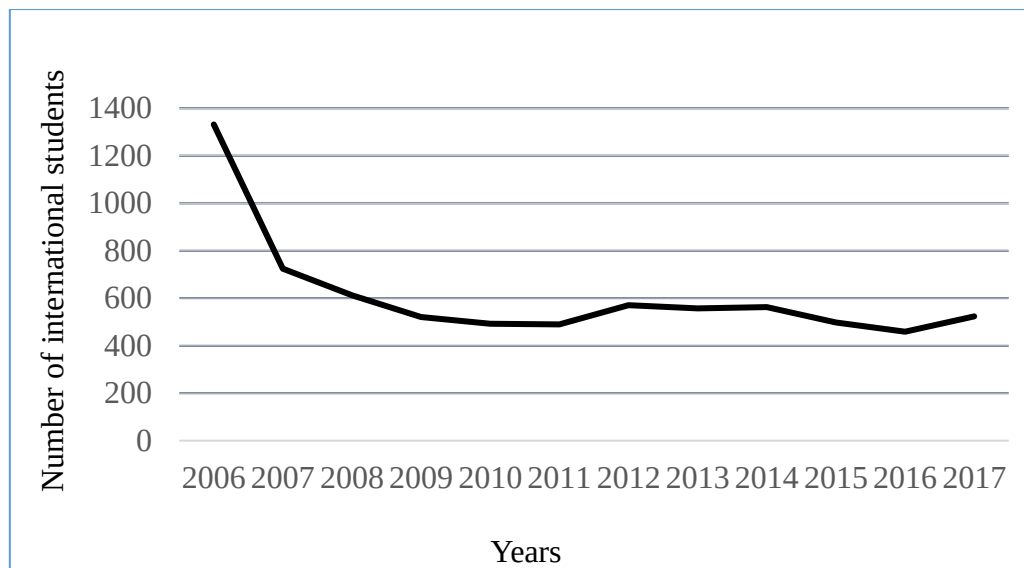


Figure 3: Trend of international students enrolment at the Mafikeng campus of the North-West University.

According to information gathered from international students at the Mafikeng campus of the North-West University in 2017, more than 80% of international students lived off campus due to the high cost of accommodation on campus. Secondly international students who had families were obliged to live off campus. Only about 18% of international students lived on campus as shown on Figure 4. Most of the students indicated that they lived in Dibate, Motlhabeng and across the units. Most international students decided to live in the units and in the neighbouring areas of Dibate and Motlhabeng because of the proximity of the university to these residential areas. In other words the Mafikeng campus of the North-West University acts as a pull factor for international students who try to minimise the cost of transport. However, residences located not far from the Mafikeng campus cost more compared to residences that are far away from the campus. Therefore, the housing business is a lucrative business to invest in. International students are good clients for the housing business as shown in Figure 4.

The results of international students at the Mafikeng campus of the North-West University shows that Nigeria had the largest number of international students (36.32%). This was followed by other counties like Cameroon (17.45), Zimbabwe (11.79%), Botswana (9.43%) and Zambia (5.19%) respectively as elucidated in Figure 5.

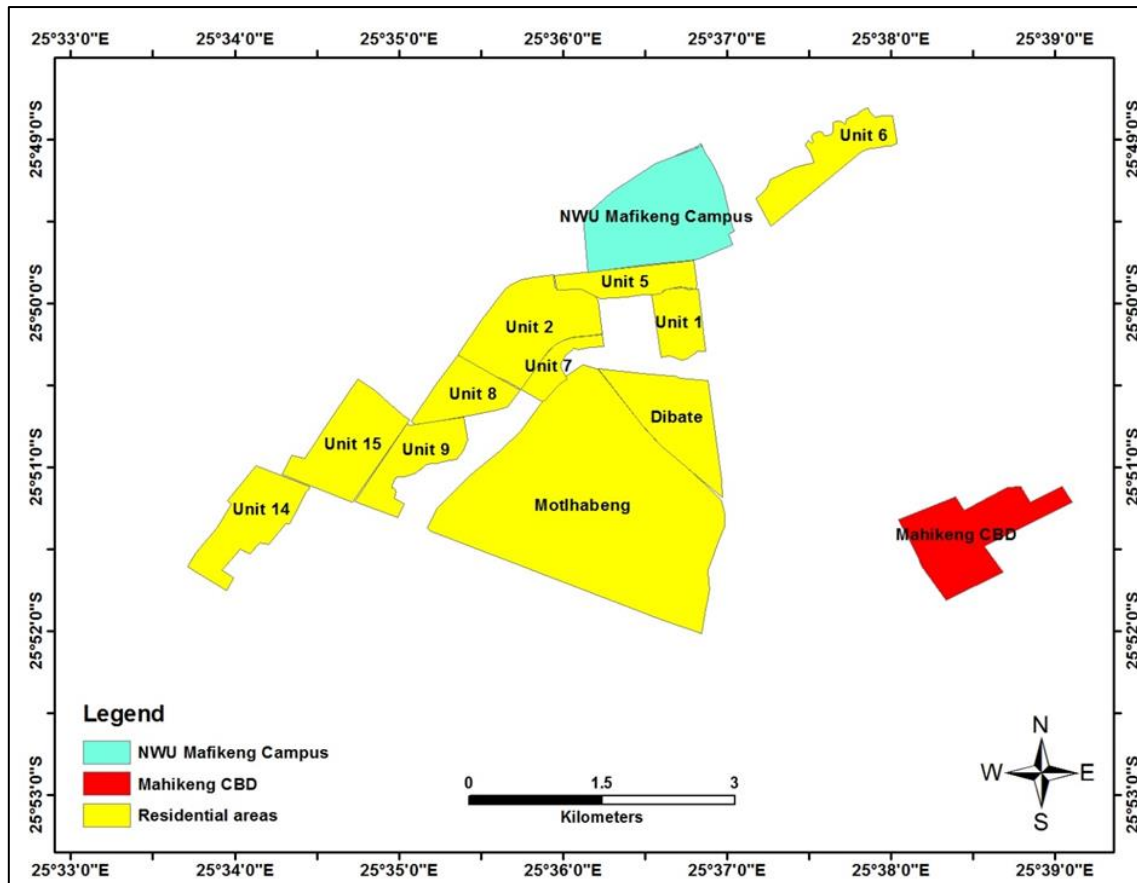


Figure 4: Residential areas for international students at the Mafikeng campus of the North-West University.

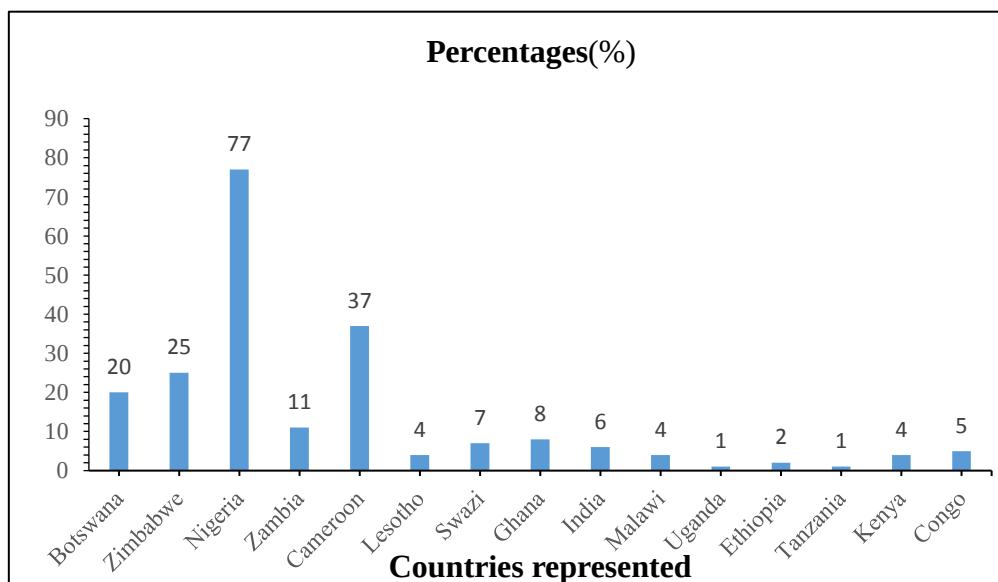


Figure 5: Nationality of international students in the Mafikeng campus.

Results of international students impact at the Mafikeng campus of the North-West University reveals that a majority (34.9%) of international students enrolled at the Mafikeng campus of the North-West University in 2017, fell between the ages 30 and 34 years. The second group

of students (23.6%) fell between the ages 20 and 25 years. The third group of students (17.5%), fell between the age group 26 and 29 years. 2.4% international students reported to fall between the age groups 40 and 44 years. Only a small percentage of international students (1.4%) reported that they were more than 50 years as shown in Figure 6.

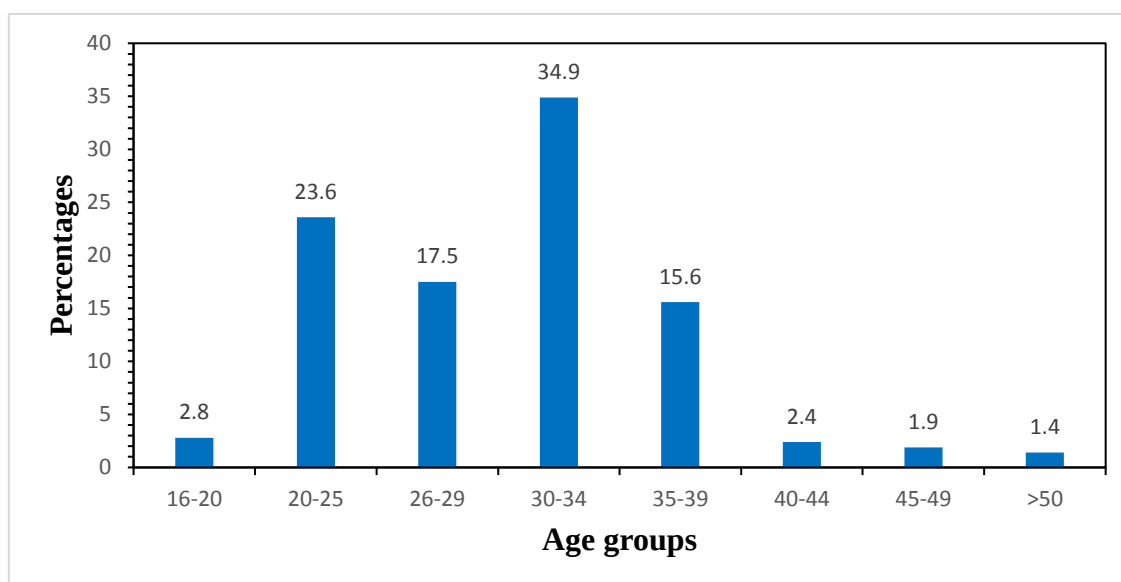


Figure 6: Age structure of international students at the Mafikeng campus of the North-West University.

In terms of gender, the males constituted 58.49% of the student population against 41.51% for the females as shown in Figure 7. Judging from the characteristics of international students at the Mafikeng campus of the North-West University in 2017, it can be deduced that international students constituted an important source of labour because the majority of the students were youths. This confirms the argument by Alboim and Cohl (2012) that international students are an important source of human capital. In other words, international students as a category of immigrants can increase the supply of labour, employment, production and the gross domestic product for most OECD countries as suggested by Ortega and Peri (2009).

In addition to the age and gender composition of international students at the Mafikeng campus, the demographic characteristics also revealed that the majority of these students were single (82.55%). This implies that international students at the Mafikeng campus do not benefit a lot from social benefits like child care grants and old age grants. This is contrary to the Huddle (1993) finding that immigrants cost the US \$40 annually. Only 17.45% of the international students' population were married as shown in Figure 8.

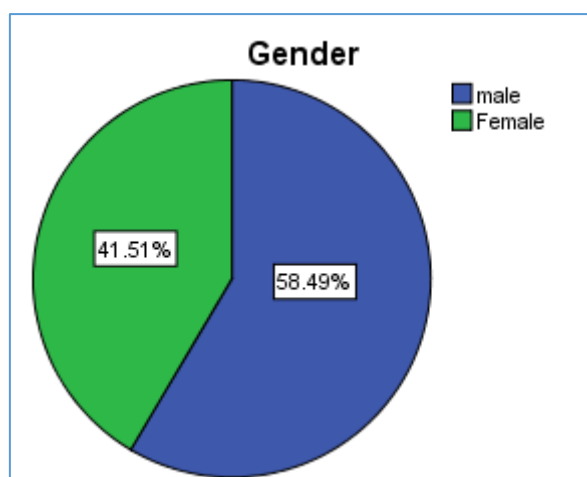


Figure 7: Gender composition of international students at the Mafikeng campus.

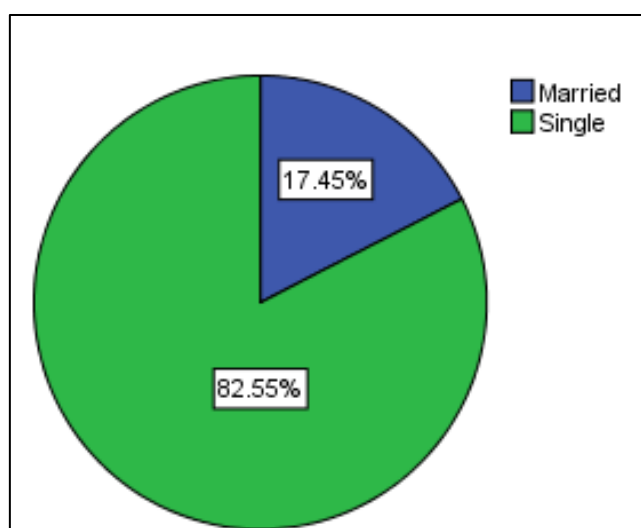


Figure 8: Marital status of international students at the Mafikeng campus.

Apart from the demographic characteristics of international students, it was also important to find out where these students came from, the kind of programs that they enrolled in, their employment status and type of employments they were engaged in. It was revealed that more than 96% of international students from the Mafikeng campus came from the African continent. This means that the Mafikeng campus of the North-West University needs to strive to recruit international students from other continents notably Australia, Asia and America. In this way, the benefits of diversity can fully be harnessed. It was also revealed that only 2.83% of international students were from Asia, meaning that the demand for higher educational services

were very high in the African continent. No student from North America, Australia, South America or Europe was enrolled at the campus as shown in Figure 9.

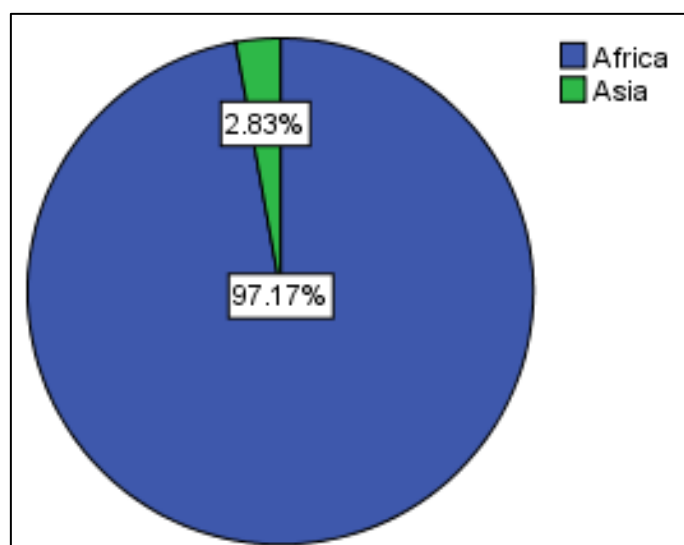


Figure 9: Sources of international students at the Mafikeng campus of the North-West University.

The repartition of international students at the Mafikeng campus of the North-West University in terms of the different programs levels enrolled in were reported as shown in Figure 10. From Figure 10, it can be deduced that 35.41% of international students were undergraduate students. The significance of this high percentage of undergraduate students means an increase in the university income because undergraduate students pay their fees in full. Secondly doctorate students were the second highest number of international students at the Mafikeng campus. This means that 27.75% of international students contributed in research and development. Masters students are a feeder group to doctorate students. This means that both the master's students and the doctorate students are important in keeping the aspiration of the National Development Plan of 2030, which is that by 2030, 75% of lecturers should be Ph.D. holders.

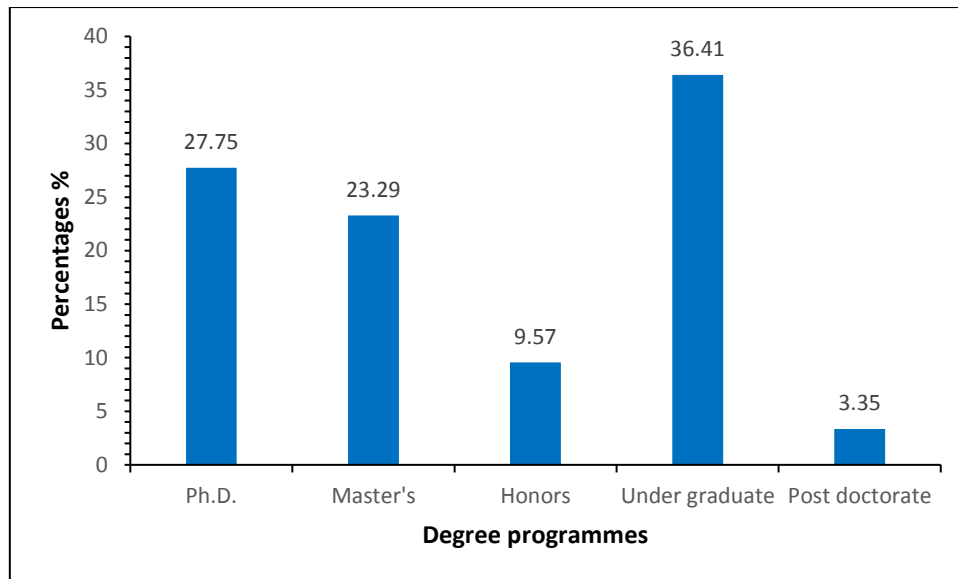


Figure 10: Types of degree programmes enrolled in by international students at the Mafikeng campus (2017).

4.3 Types of permit utilised by international students

One of the prerequisites of an international student is a study permit. However, other kinds of permits can be issued to international students depending on an agreement between the Department of Home Affairs and the student. For the case of international students at the Mafikeng campus, a majority of the student utilised a study permit during their degree programs as shown in Figure 11.

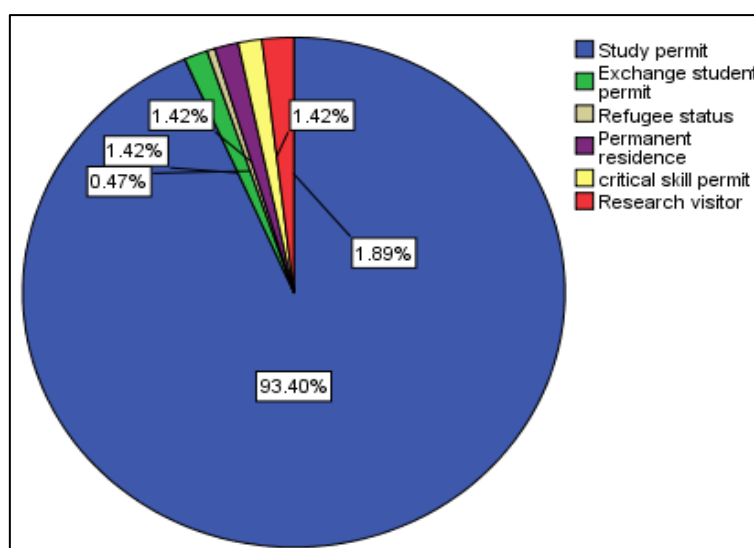


Figure 11: Legal personae of international students at Mafikeng campus of the North-West University.

4.4 Direct impact of international students

According to Snowball and Antrobus (2006) and Vickers and Bekhradnia (2007), international students contribute significantly to the local business sector through living expenses, accommodation cost and tuition fees. In the case of the Mafikeng campus of the North-West University, international students spent about R1300 on a monthly basis as shown in Figure 12.

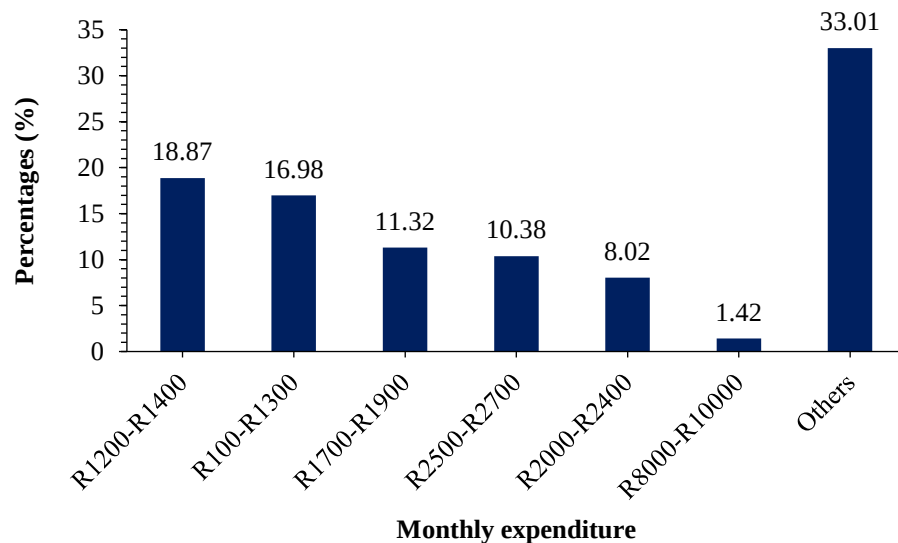


Figure 12: Monthly expenditure by international students at the Mafikeng campus of the North-West University.

Since 18.87% of international students reported that they spent between R1200-R1400 on a monthly basis, with a 1.42% spending between R1700-R1900 per month, it was estimated that on average international students spent R1300 per month on living experiences. Multiplying this amount per annum, it was estimated that international students at the Mafikeng campus of the North-West University spent about R15 600 on living expenses yearly.

Another important expenditure for international students was the cost of accommodation. With regards to where these students lived, it was revealed that 81.60% lived off campus and only 18.40% lived on campus, meaning that international students do not inconvenience native students in terms of accommodation as shown in Figure 13. In other words 81.60% international students contributed greatly to the development of the housing business. Living off campus implied an increase in the cost of living. In other words, it meant an increase in transport fare for those international students who did not have cars. For international students who owned cars, living off campus meant an increase in the cost of fuel. International students

who lived on campus enjoyed the proximity to the nearest market centre (Mega city), which is located not far from the campus, thus reducing their expenditure on transport fare. However, international students who frequently traveled to town which is far away from the campus incurred additional costs on transport. A small percentage of international students (18.40%) lived on campus. Though they minimised the cost of transport fare, these students spent more on accommodation, meaning an increase in revenue for the university.

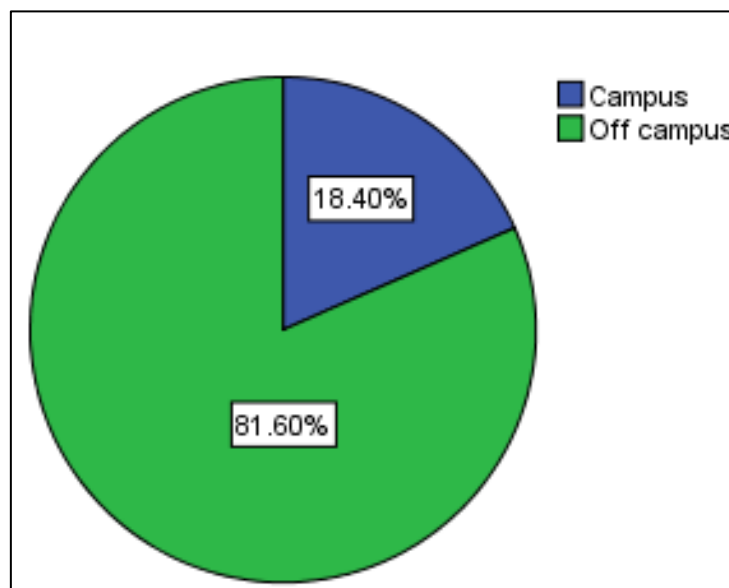


Figure 13: Place of residence and cost of accommodation of international students at the Mafikeng campus of the North-West University.

Based on statistics gathered from international students at the Mafikeng campus of the North-West University, the cost of accommodation varies depending on where students chose to live. The costs of accommodation were revealed to vary from ten thousand Rand to about sixty thousand Rand per year depending on the type of accommodation as shown in Figure 14.

A greater proportion of international students (29.75%) reported that they spent R1500 per month on accommodation which amounted to R18000 annually. 16.51% of international students reported that they spent R1250 on accommodation per month, which amounted to R15000 per year. A very small proportion of international students (1.42%) reported that they spent above R50000 annually on accommodation. However, international students who indicated that they spent R1000, meaning they spent R12000 on accommodation on a yearly basis, were also considered to be plausible. Thus based on these figures (R18000, R15000 and R12000), it was concluded that on average most students spent approximately R15000 on accommodation annually.

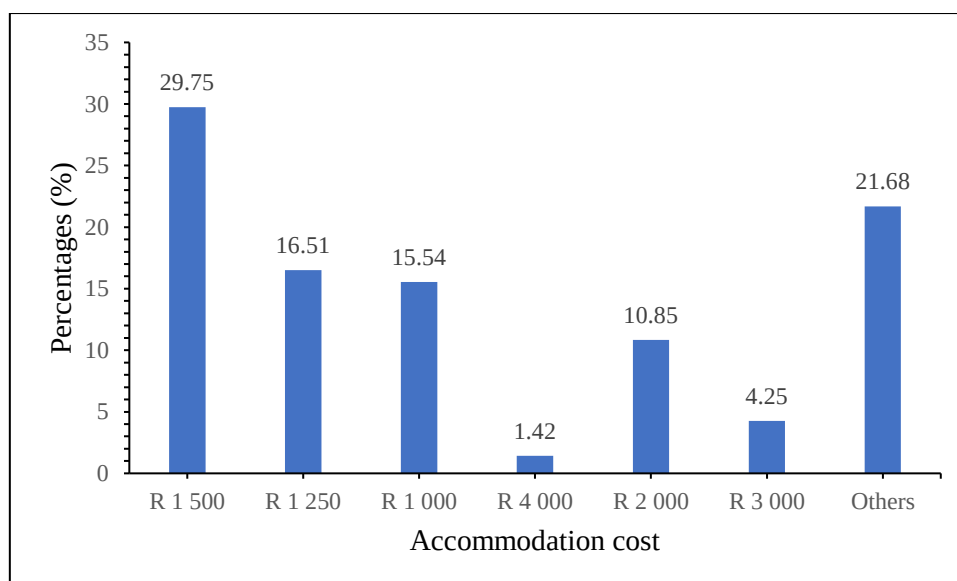


Figure 14: Cost of accommodation for international students at the Mafikeng campus of the North West University.

Apart from the living expenses and accommodation cost, the cost of tuition was also included as direct cost for the students, as earlier indicated. The cost of tuition fees for students depends on the level and types enrolment for in the academic year. Based on this, the participants were asked to indicate the type of degree programs enrolled in and Figure 15 illustrates the result. Based on Figure 15, a large proportion of international students were undergraduate students (35.41%). For the post graduate students, 27.75% of the students were enrolled as Ph.D students, 23.92% as Master's students, 9.54% as Honours students and 3.35% were enrolled as Post Doctorate researchers. The cost of tuition fee depended on the type of degree program and level enrolled for. Thus admitting more undergraduate students means an increase in the university income since the cost of tuition for undergraduate students is higher than post graduate students.

From Figure 16, it was revealed that the majority of international students (44.81%) spent between R30000-R35000 on tuition. On average the international students spent R32500 on fees annually for those enrolled as undergraduate students. The second group of students (19.34%) indicated that they paid between R25000-R30000 on tuition annually. 10.85% of the international students reported that annually, they spent R15000 on tuition fees. A small proportion of students (0.47%) indicated that they spent between R45000-R50000 on fees.

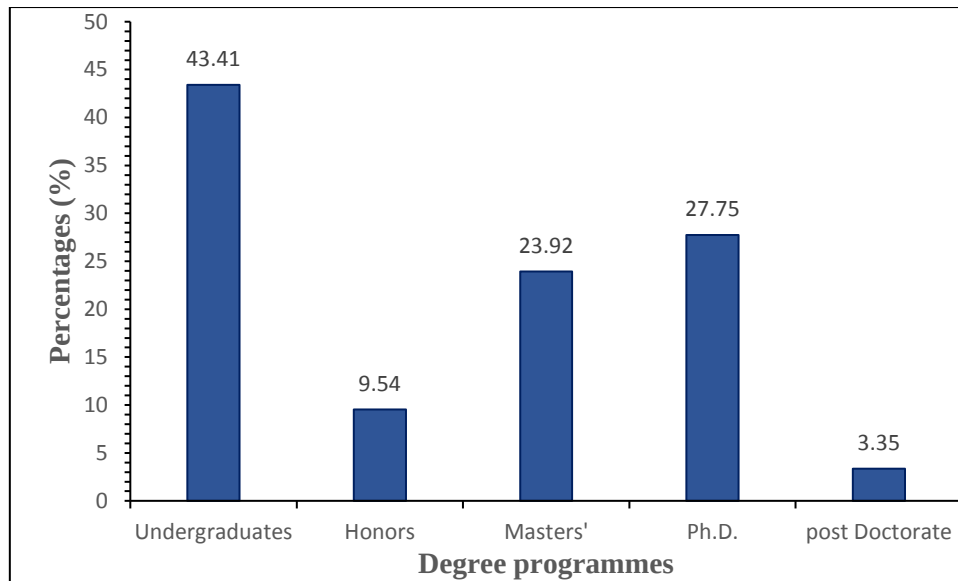


Figure 15: Types of degree programmes enrolled in by international students at the Mafikeng campus.

An important source of revenue for the host institutions from international students is the cost of tuition fee. From Figure 16, it can be deduced that a majority of international students (44.81%) spent on average R32500 on tuition fees. This can be explained by the fact that majority of the international students population were undergraduates (36.41). This confirms other findings that international students are important sources of revenue to the host institution. This was the case at the University of Sheffield (2013) where international students were reported to spend 73.9 million Pounds. According to the Campus France report (2014), international students spent 563 million Euros on tuition fees.

Besides the living expenses, accommodation cost and tuition fees, international students incurred bank charges as indicated in Figure 17. Annually, 25.94% of international students reported that they paid about R400 on bank charges. A very small percentage (1.42%) indicated that they spent above a thousand Rand on bank charges annually.

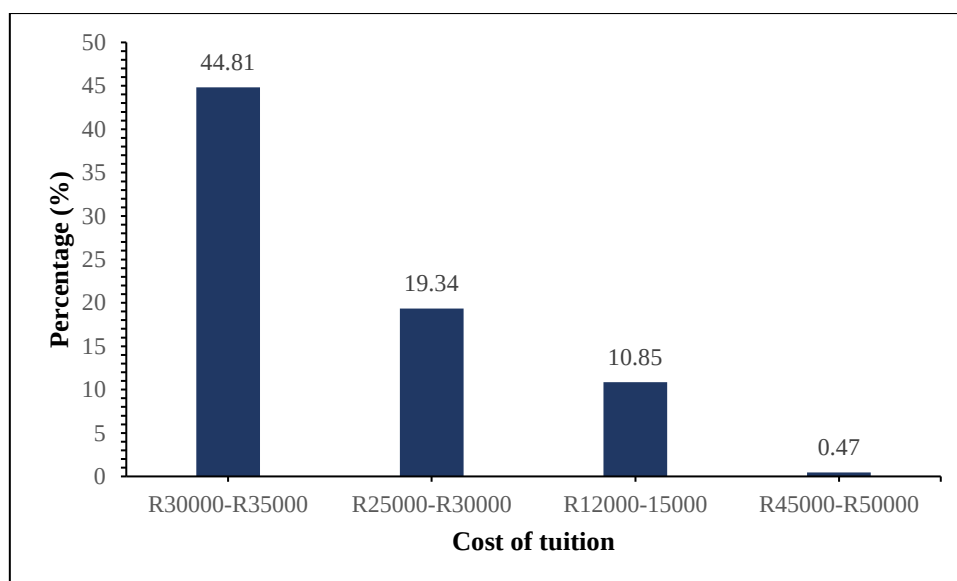


Figure 16: Cost of tuition for international students at the Mafikeng campus.

Therefore, the aggregate of the living expenses, accommodation cost, tuition and bank charges were calculated as shown in Table 5.

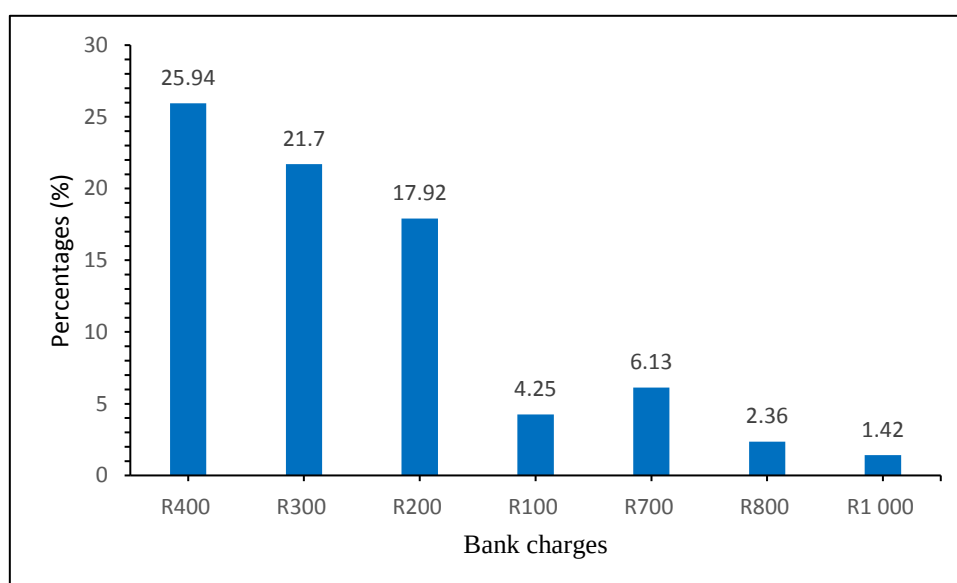


Figure 17: Monthly bank charges of international students at the Mafikeng campus of the North-West University.

Table 5: Direct cost of international students at the Mafikeng campus

Expenses	Cost
Living expenses	15 600
Accommodation	15 000
Tuition	32 500
Bank charges	4 00
Total	R63 500

The aggregate direct impact generated by 527 international students at the Mafikeng campus in 2017 was estimated at about R33 464 500. This result confirms the findings at the University of Sheffield where international students were reported to contribute 120.3 million Pounds to the economy of Sheffield (Oxford Economics, 2013). Therefore, the presence of international students in a community has multiple consequences such as increase in trade, investment, political influence and cultural diversity (Jena and Reilly, 2013).

4.5 Factors that motivate international student mobility to the Mafikeng campus of the North-West University

After perusing the factors that motivate international students migration globally from different authors, these same factors were probed at the Mafikeng campus to determine reasons that guided international students to study at the Mafikeng campus of the North-West University. It was revealed that a variety of factors attracted international students at the Mafikeng campus of the North-West University, as shown in Figure 18.

As indicated in Figure 18, many factors motivated international students to study at the Mafikeng campus of the North-West University, notably the recognition of certificates, reputation of the North-West University, family recommendation, lack of good programs in international students' countries of origin, the affordability and the cost of living. A big proportion of international students (24.29%) indicated that they chose the Mafikeng campus of the North-West University because of the recognition of certificates from this University. This confirms the findings of Aslanbeigui and Montecinos (1998), who indicated that quality difference in education between foreign and domestic degrees is an important factor that motivate international students' migration. Some 15.71% indicated that the reputation of the University influenced their decision to study at the Mafikeng campus. Thirdly, 13.33% reported

that family members were good ambassadors in recommending family members to choose the Mafikeng campus as their preferred educational destination.

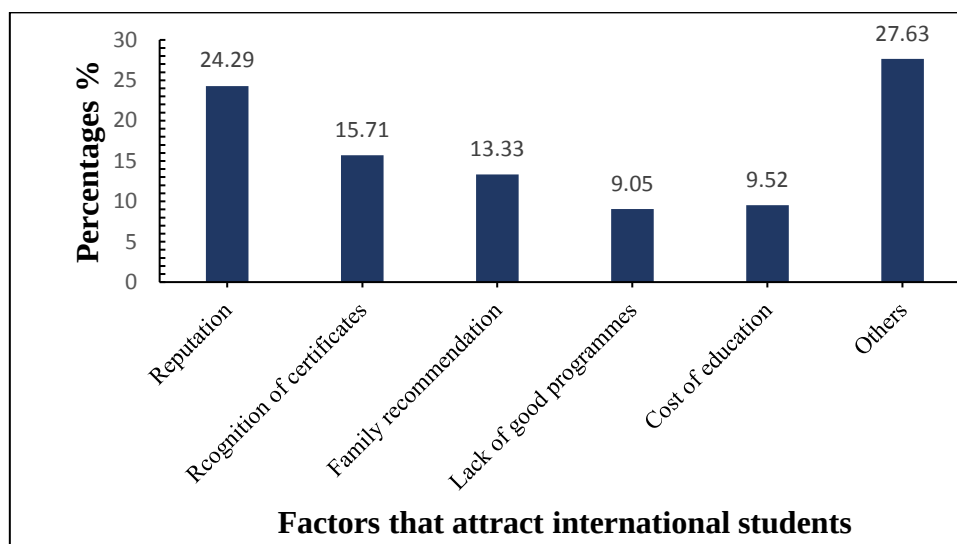


Figure 18: Factors that attract international students at the Mafikeng campus.

Among other factors that were mentioned were the cost and affordability of education, employment prospects, the availability of infrastructure, the peaceful and quiet learning environment, the availability of bursaries and the influence of some supervisors. The factors that attracted international students to the Mafikeng campus of the North-West University are not unique. According to Cubillo *et al.* (2006) and Mpinganjira (2009), the availability of experts in South Africa has improved the perceived quality of the country's qualification thus enhancing the employability of graduates from these universities. In addition to this, Kahanec and Králiková (2011) confirmed that the quality of higher education institutions and the availability of programmes taught in the English language is a strong incentive in attracting international students.

4.6 Problems encountered by international students at the Mafikeng campus of the North-West University

International students world-wide encounter some problems even though these problems differ from one institution to another and from country to country. None the less, international students do face some problems at the Mafikeng campus. International students just like their counterparts elsewhere in the world reported the problems shown in Figure 19.

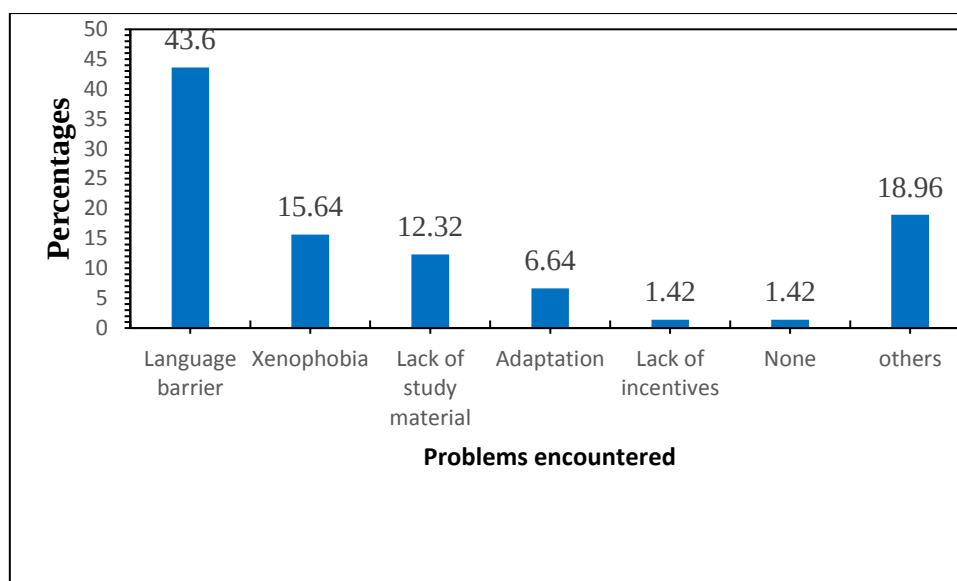


Figure 19: Problems encountered by international students at the Mafikeng campus of the North-West University.

The main problem that international students reported was that of language or the inability to communicate in the local language (Setswana). About 43.60% of international students encountered language difficulty in their host community. Secondly, 15.64% of the international students indicated that xenophobia was also one of the problems that they encountered. Thirdly, about 12.32% of international students indicated that some didactic material were not available on their campus. Important to note also was 6.64% who indicated the issue of the inability to adapt to their new environment. Among other issues that were mentioned were lack incentives for undergraduate students, insecurity and perturbation from strikes, and so on. It is worth noting that 1.42% of international students indicated that they encounter no problems. International students encounter similar problems in the US. Alghami and Otte (2016) reported that international students faced problems like language barrier, problems of social integration and economic hardship. The implication of these problems may deter future international students in countries where these issues persist because they are known as ambassadors who can promote the values of the host nation.

4.7 Problems encountered by the Mafikeng campus of the North-West University induced by international students

According to information collected from the five faculties at the Mafikeng campus of the North-West University (2017), no faculty faces problems induced by foreign students.

However some faculties have experienced an increase in the number of international students. For example it was indicated that the faculty of law has witnessed an increase in the number of foreign students. On the other hand, the faculties of theology and education have witnessed decreases in the numbers of international students. The main reason for the decrease in the faculty of theology was due to delay in delivering the South African Qualification Authority Certificates. In the faculty of education, it was indicated that due to the decrease of international students most especially at the postgraduate level, the decrease has affected through-put. Meaning that international students increase the number of students who graduate in this faculty.

According to some officials of the five faculties at the Mafikeng campus of the North-West University international students have brought some advantages to the Mafikeng campus and this include:

- Improvement in capacity and diversity.
- Creating awareness about some faculties through exposure and
- Improvement in the utilization of modern tools of communication for learning for example, E-learning and online registration.

Some faculties did mention the problem of communication as their main issue. Apart from the language barrier, some faculties mentioned the fact that some international students do not meet up with the requirements of their faculty. In that case, the faculty ended up losing some these students.

Besides the faculties, the residence office of the Mafikeng campus of the North-West University was equally consulted to probe into the problems the Mafikeng campus encounter as a result of admitting international students. Even though the problems were not attributed to international students, the residences office of the Mafikeng campus of the North-West University did indicate that there were some problems as indicated:

- Shortage of accommodation,
- Shortages in the provision of beds,
- Wi-Fi coverage in the residence was not 100%,
- Lastly, students' behavior at the residence was becoming an issue.

It was indicated that in 2017, over 8000 students applied for accommodation on campus but the campus could provide only 4000 residences.

4.8 Recommendation of family members or friends to study at the Mafikeng campus

When international students were asked if they recommended family members or friends to study at the Mafikeng campus, more than half of the students indicated with a yes, as shown in Figure 20. As seen in Figure 20, an overwhelming majority of international students indicated that they would recommend family members and friends to study at the Mafikeng campus of the North-West University. This means that international students can promote the values of South Africa in their source countries as indicated by Johnson (2002). Some 25.12% of international students indicated that they would not recommend family members or friends to study at the Mafikeng campus of the North-West University due to some problems experienced in the course of their academic live. This may lead to a decrease in the number of future enrolments since these problems will be retold as anecdote to friends and relatives.

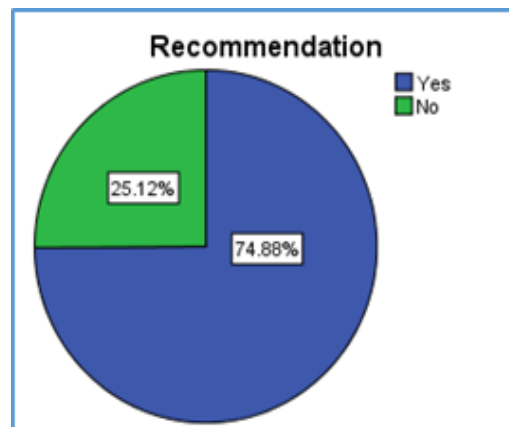


Figure 20: Recommendations of international students at the Mafikeng campus to family members or friends to study at the campus.

4.9 Indirect impact of international students' migration to the Mahikeng economy

Based on these different multipliers, the Jooste *et al.* (2013) multiplier was used due to the fact that the multiplier depends on certain factors such as the state of the economy. Thus a more recent multiplier was the ideal. Therefore, considering the direct cost of international students at the Mafikeng campus in 2017 which stood at R33 464 500 the indirect impact was determined as:

$R33\,464\,500 \times 0.3 = R10\,039\,350$, therefore the indirect impact generated by international students was estimated at R43 503 850.

However, considering the sources of income of international students at the Mafikeng campus in 2017, 49% of international students indicated that they benefited from the North-West University bursary as indicated in Figure 21.

About 45.50% of the international students indicated that they got support from family members and 0.47% indicated that they got an institutional bursary. About 1.90% indicated that they had other sources of finance. Thus R21 357 336 was deducted from the aggregate impact. As a result of this the direct benefit of international students at the Mafikeng campus was R22 146 514.

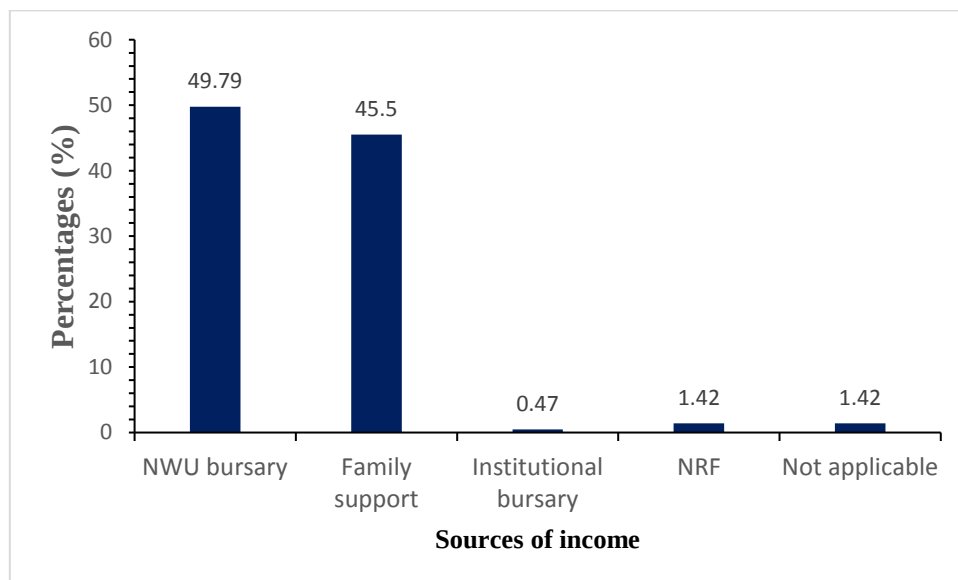


Figure 21: Other sources of income for international students at the Mafikeng campus of the North-West University.

4.10 Reliability test

The Cronbach alpha (1955) reliability test was used to ensure reliability and validity of the questionnaire utilised to gather information from international students. The Cronbach alpha is a reliability coefficient that is designed to test the degree of accuracy on the types of answers collected from participants (Cronbach, 1951, Cronbach and Shavelson, 2004). It is a statistical software that can be run on SPSS. Any Cronbach alpha value below 0.74 is considered unacceptable. The SPSS software provides options for deleting erroneous answers. Through the process of deleting erroneous answers, the Cronbach alpha value is improved. Some 24

items were used for the questionnaire and after running the reliability test, the alpha value was very low as indicated in the Table 6.

Table 6: Reliability test 1

Reliability Statistics	
Cronbach's Alpha	No. of Items
.113	24

Table 7: Reliability test 2

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Nationality	78.4839	137.467	-.036	.137
Gender	81.6452	145.249	-.168	.126
Marital status	81.3387	148.162	-.430	.144
Field of study	73.5161	109.664	-.078	.253
Type of employment	77.1935	150.585	-.217	.205
Monthly salary	77.1935	150.585	-.217	.205
Factors that determine ISM	78.4839	145.533	-.142	.177
Challenges	80.3710	146.336	-.146	.170
Charity	81.5161	147.237	-.181	.146

Table 8: Reliability test 3

Reliability Statistics	
Cronbach's Alpha	No. of Items
.554	15

Table 9: Reliability test 4

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Employment status	39.3212	76.146	-.367	.579
Saving	39.4508	76.228	-.356	.580
Fees	37.2746	70.867	-.049	.603
Other sources of income	38.3679	77.713	-.244	.622

Table 10: Reliability test 5

Reliability Statistics	
Cronbach's Alpha	No. of Items
.739	10

Although acceptable, the Cronbach alpha was improved to 0.739 by excluding the variable “Continent” since it had a negatively Corrected Item-Total Correlation (Lindmeier, 2010). Thus a Cronbach alpha of 0.739 which is greater than 0.6 indicates that after removing the variable continent, the data had been improved to an acceptable reliability (Fook, 2015) as indicated in the Table 11.

Table 11: Reliability test 6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Mean if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Age	26.8775	26.8775	.480	.709
Degree programme	27.9265	27.9265	.546	.702
Amount save	28.2108	28.2108	.448	.713
Study permit	29.2304	29.2304	.488	.718
Monthly expenditure	25.9510	25.9510	.506	.703
Yearly expenditure	24.9314	24.9314	.443	.712
Residence	28.6471	28.6471	.094	.746
Accommodation cost	26.6422	26.6422	.434	.713
Bank charges	26.4804	26.4804	.483	.704
Recommendation	29.2059	29.2059	.136	.745

There was no need to remove any variables since the data exhibited acceptable reliability and none of the items had a negatively Corrected Item-Total Correlation (Lindmeier, 2010).

4.10 Segmentation of participants by common attributes (Two-steps clustering)

Out of the 10 variables with acceptable reliability, only six variables in Table 11 were significant in segmenting the subjects under study. The cluster sizes have been explained in Figure 22. The Degree Programme was the most significant variable whereas monthly expenditure was the least.

The two-step clustering algorithm shows that there were three clusters, most of the subjects were allocated to Cluster 1 (34.6%) whereas Clusters 2 and 3 had the same percentages of subjects allocated to them (33.2%). The clusters are summarised in Figure 23.

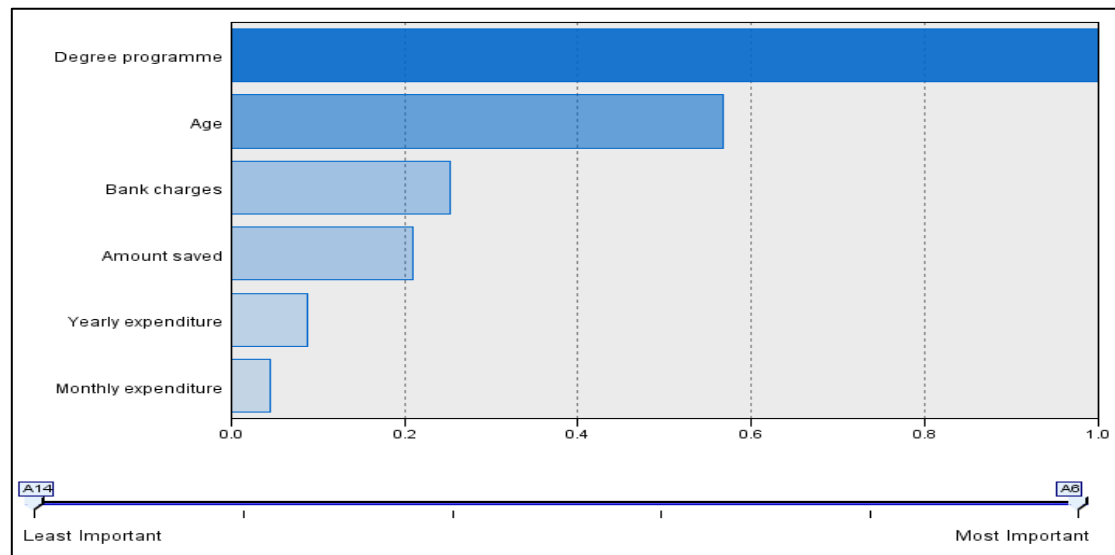


Figure 22: Predictor importance for the different groups.

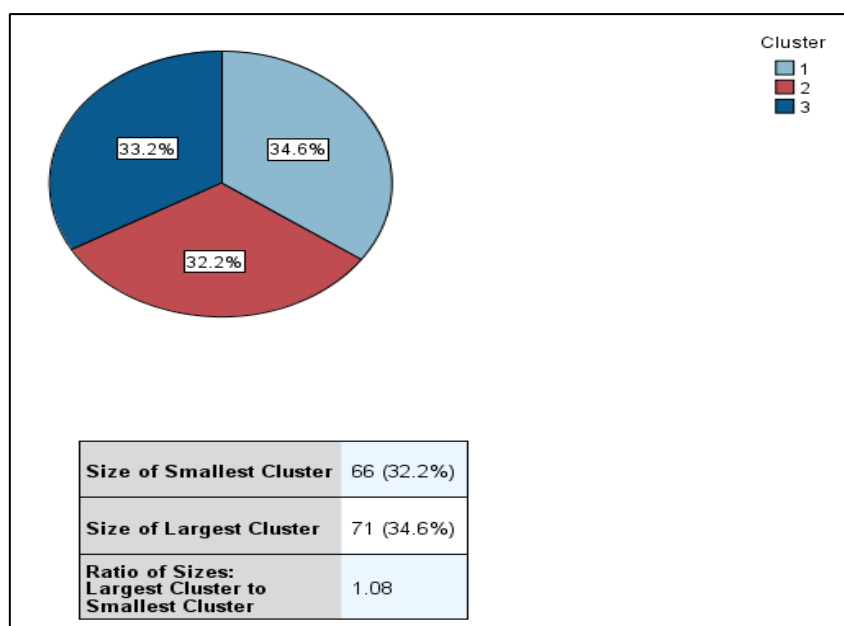


Figure 23: Cluster sizes.

The three clusters have been elucidated in Figure 24. Cluster 1 (34.6% of the subjects) comprised of respondents doing Ph.D, between the ages of 30-34 years, and their bank charges amounted to R500 per year. These respondents also indicated that they saved nothing per month, their yearly expenditure was R16000-20000 whereas their monthly expenditure was 1200-1400. Another cluster that was analysed was cluster 2 as shown in Figure 24.

Cluster 2 (33.2% of the subjects) comprised of respondents enrolled in a Master's program, between the ages of 30-34 years, and their bank charges amounted to R400. These participants also indicated that they saved nothing per month, their yearly expenditure was between R10000-12000 whereas their monthly expenditure was 1200-1400. The third cluster was also analysed as indicated in shown in Figure 25.

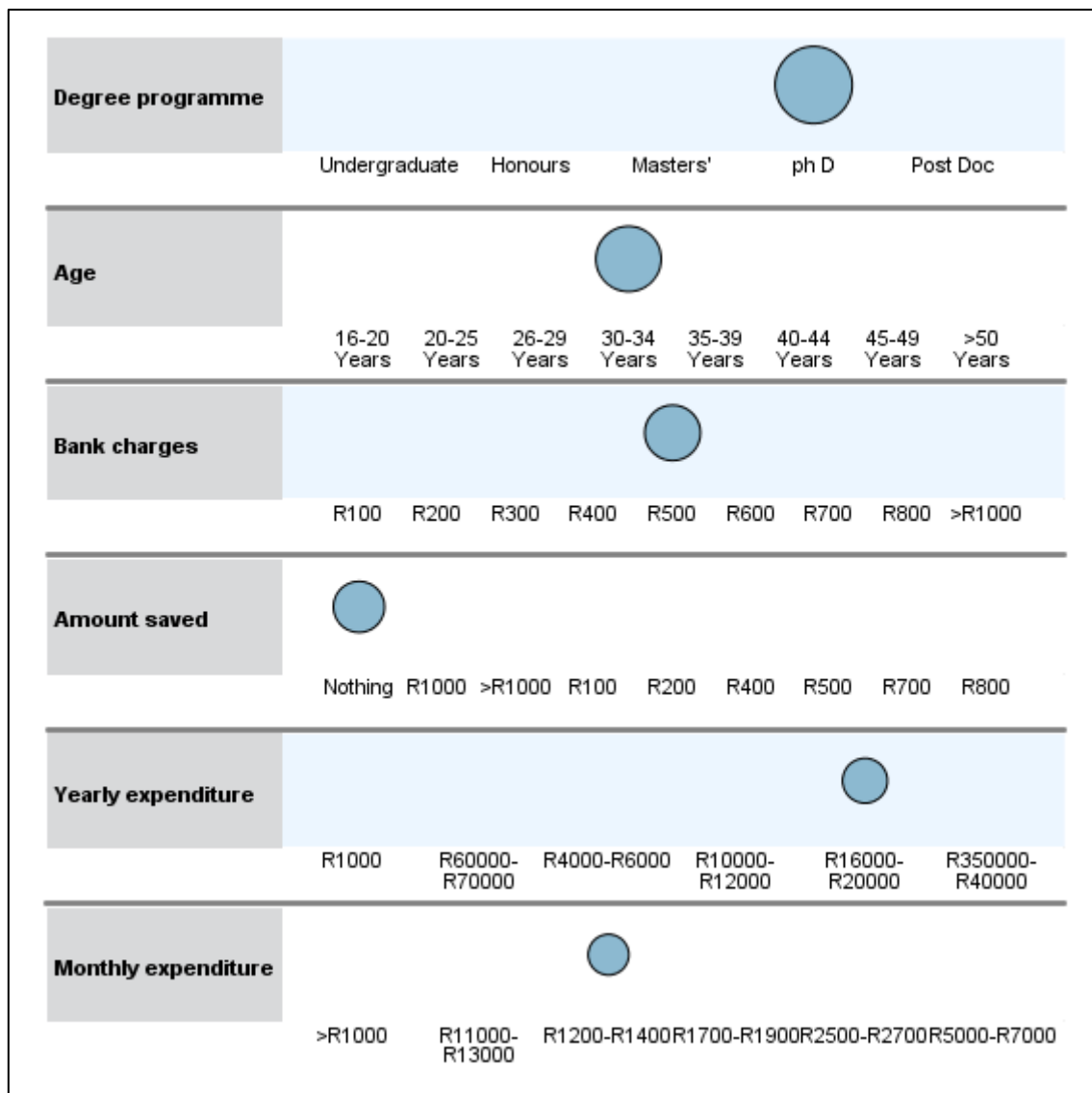


Figure 24: Cluster comparison for group 1.

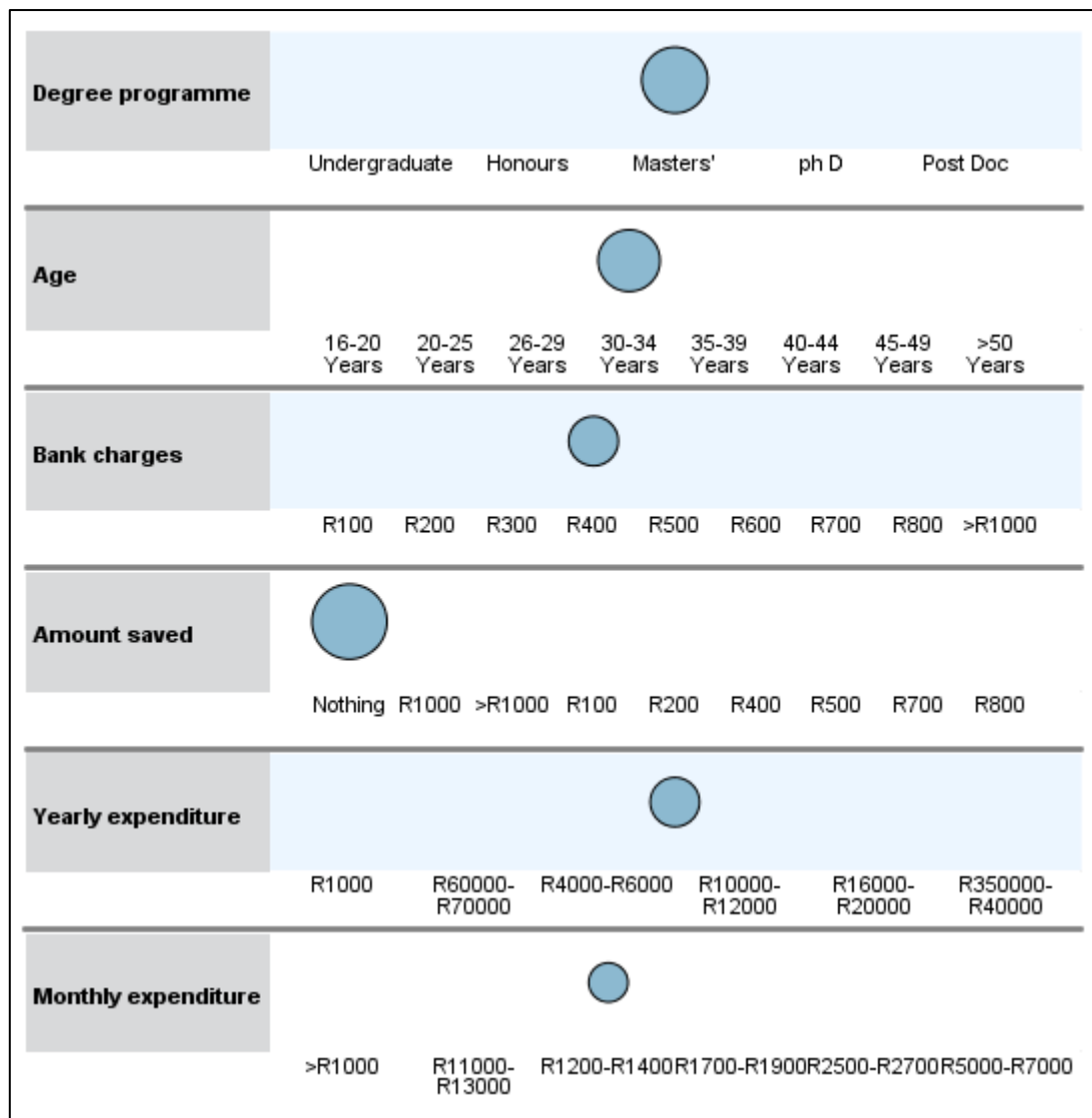


Figure 25: Cluster comparison 2.

Cluster 3 (33.2% of the subjects) comprised of participants doing a degree program, between the ages of 20-25 years and their bank charges amounted to R300. These respondents also indicated that they saved nothing per month, their yearly expenditure was between R10000-12000 whereas their monthly expenditure was 1000-1200. Most undergraduates were in the 20-25 years age group, and their bank charges fell in the range R300-R400 (Figure 26). This age group had no savings, and their annual expenditure was between R10 000 and R12 000.

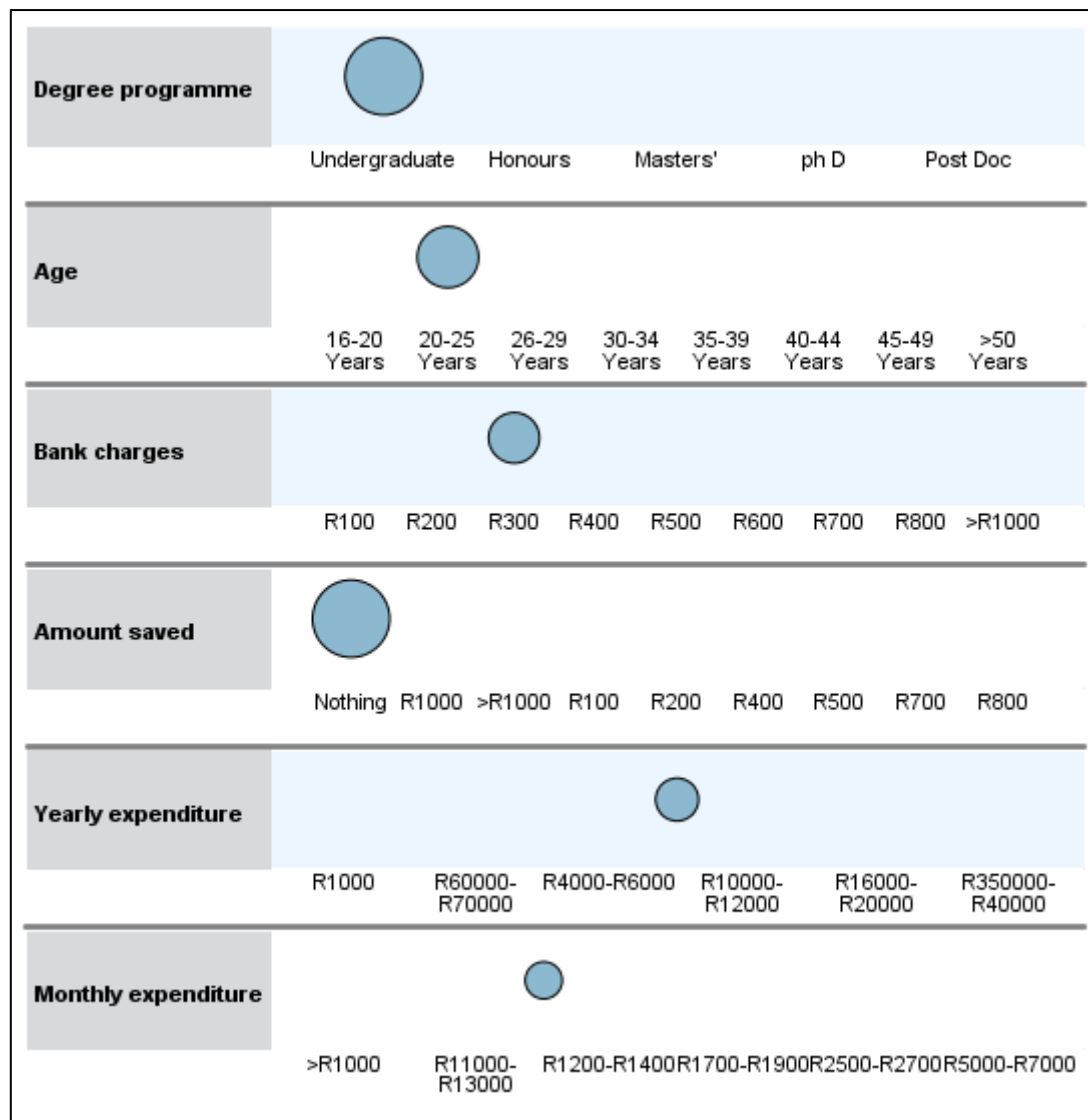


Figure 26: Cluster comparison 3.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This study was set to explore the economic impact of North-West international students on the Mahikeng economy. This chapter brings out the different conclusions and recommendations on the economic impact of North-West international students on the Mahikeng economy. This chapter is divided into two sections. Section one brings out the different conclusions of the study based on the findings and the second section outlines the different recommendations of the study for a better perspective.

5.2 Conclusions

Based on the empirical findings, international students have a major impact on the Mahikeng economy in momentary terms. This is contrary to the general stereotypes that international students benefit more in the host country than what they contribute. International students contributed the sum of R33 464 500 from living expenses, accommodation cost and tuition to the Mahikeng economy in 2017.

It is also safe to conclude that the benefits of international students' migration to the Mafikeng campus of the North-West University outweighs the cost incurred by hosting these students.

Furthermore, the international recognition of certificates, lack of some degree programs at the source countries, family recommendation, and cost of education were found to be the main factors attracting foreign students to enroll at the Mafikeng campus of the North-West University.

This study also found out that the presence of international students at the Mafikeng campus had an insignificant negative impact on the campus as was reported by some faculty officials.

5.3 Recommendations

The following are the recommendations of this study:

Similar studies should be undertaken on the other campuses of the North-West University for comparison purposes.

More studies of this kind should regularly be carried out and the results should be made public to create public awareness on the impact of international students not only to the North-West University but also on other South African Universities.

A study on the impact of the Department of Home Affairs policies on international student's enrolment should be done at the North-West University.

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Appendix 1: Questionnaire schedule for international students

I, Mr. Ndiva am a bona fide student at the Mafikeng campus. I am currently doing my masters' degree at the department of geography and environmental sciences. In order to achieve the objectives of my research project, I kindly request that you complete the following questionnaire regarding your background details, social habits, living expenses, tuition, accommodation and other related cost. Information collected through this questionnaire will respect the ethical principles of privacy, anonymity and confidentiality. It is also worthy to note that participants may withdraw from this exercise at any stage if they feel uncomfortable or threatened. The exercise will take twenty minutes to complete. Questionnaires can be returned using the contact below.

Contact: 0739789151

SECTION A: Demographic Structure

1. Nationality
2. Age 16-19 ☐ 20-24 ☐ 25-29 ☐ 30-34 ☐ 35-39 ☐ 40-44 ☐ 45-49 ☐ 50+ ☐
3. Gender, Male ☐ Female ☐ Other ☐ , Please specify _____
4. Marital Status, Married ☐ Single ☐
5. Indicate your continent.
Africa ☐ Asia ☐ Australia ☐ North America ☐ South America ☐ Europe ☐
6. Degree program, under graduate ☐ Honors ☐ Masters ☐ PhD ☐ Post Doc ☐
7. Field of study _____
8. Employment Status. Employed ☐ Unemployed ☐
9. If employed, on your employment status, Please specify the type of employment.
Lecturer ☐ Assistant Lecturer ☐ Writing Consultant ☐ Reading Assistant ☐
Peer Mentor ☐ SI Mentor ☐ eFundi Assistant ☐ Others _____
10. As an employee, please roughly estimate your monthly salary.
R1000-R1400 ☐ R1500-R2000 ☐ R2000-R4000 ☐ R4000-R6000 ☐ R6000-R8000 ☐
R8000-R10000 ☐ R10000-R15000 ☐ R15000-R20 000 ☐ R20 000-R25000 ☐
11. Do you save? Yes ☐ , No ☐

12. Approximately how much do you save every month? R_____

13. Which category of permit are you currently using?

Study permit	
Exchange student permit	
Refugee permit	
Permanent resident permit	

SECTION B: STUDENT EXPENDITURE

14. Please indicate in the table below your estimated monthly expenditure.

ITEMS	AMOUNTS
Food/groceries/toiletries	R
Telephone bill including international calls	R
Transportation	R
DStv	R
Entertainment, restaurant, tours/trips movies, alcohol	R
Hairdo/ Haircut	R
Photocopy and printing	R
Utilities (Electricity, Gas and Water)	R
Parking fees	R
Church offering	R
Others	
	Total

15. Please indicate your estimated yearly expenditure. Ignore variables that do not apply to your yearly expenses. It should be noted that the cost of renewing a permit will vary as shown here. R2000-4000, R4000-6000, R6000-8000.

ITEMS/COST	AMOUNTS
Permit renewal including medical certificate, radiological report, police clearance and transport fare if applicable and medical aid.	R
Computer, lab top, printer, modem etc.	R
Flight ticket	R
Auto mobile, car, bike, etc.	R
Gadget, cell phone	R
Clothes, shoes, etc.	R
Graduation ceremony	R
Furniture	R
Traffic ticket, car service	R
Visit by friends and relatives	R
Others	Total

16. Indicate in the table below your accommodation cost. Please also indicate where you live, campus or off campus using an (x) where appropriate.

Residence	Per month	12 months	AMOUNT
Campus ☐			R
Off campus ☐			

17. Indicate in the table below your tuition fee (per month, month or year)

TYPE OF STUDENT	DURATION OF STUDY, months/year	Total
Full time		R
Part time		R
Exchange program		R
Special		R
Others		R

18. Question (16) is a follow up question of question (10). What are your other sources of income as an international student?

☐ North West University bursary

☐ Home government support

☐ Institutional Bursary

☐ Family support

☐ NRF

☐ Others, please specify _____

19. This question is basically on your bank charges and the information required can be obtained from your bank statement.

Number of Banks (1,2,3,4,5 etc)	Monthly Charges	Other charges	Total
			R

20. What factors motivated you to choose the campus where you are currently studying?

21. As an international student, what are the academic and cultural challenges you encounter in the course of studying at the Mafikeng campus?

22. Will you recommend any of your family member or friend to study at the Mafikeng campus? _____

23. Have you given time or money to any charity organization in your community? If yes indicate the name of the charity and the item/ items/ amount donated. _____

THANK YOU.

Appendix 2: Interview schedule for officials at North-West University Mafikeng Campus

I, Emmanuel Ndive, am a bona fide student at the Mafikeng Campus of the North-West University. I am currently doing my Master's degree in the Department of Geography and Environmental Sciences. In order to achieve the objectives of my research project, I kindly request that you answer the following questions regarding the problems that the Mafikeng Campus of the North-West University is encountering as a result of admitting foreign students. This question session will last for 5 minutes maximum. Information collected will respect the ethical principles of privacy, anonymity and confidentiality. Participants may withdraw from this exercise at any stage if they feel uncomfortable or threatened. Mark an (x) where necessary. My contact details are: Telephone number 0610678956 or email address, emmanuelmbellandive@gmail.com.

SECTION A

FACULTIES

1. Does your faculty encounter any challenges regarding admitting foreign students?

Ye ☐

No ☐

2. Have you experienced an increase or a decrease in the number of foreign students in your faculty?

Increase ☐

Decrease ☐

3. If you have experienced a decrease or an increase, what problems has that caused the faculty? Please explain.

4. Are there any particular advantages to admitting foreign students?

Yes ☐

No ☐

5. If yes in question 4, please state the advantages?

6. If your faculty encounter any challenges as a result of admitting international students as indicated in question one, please state them.

SECTION B

RESIDENCE OFFICE

7. Please outline that problems you encounter at the residence office as a result of providing accommodations to international students.

8. Please indicate how you intend to resolve the above mention problems.

SECTION C

INTERNATIONAL OFFICE

9. Please provide data on the of international students' enrolment at the Mafikeng campus of the North-West University from 2006 till 2017 as provided in the table below.

Years	Number of international students
2006	
2007	
2008	
2009	
2010	
2011	
2012	
2013	
2014	
2015	
2016	
2017	

Thank you