



**COST IMPLICATIONS OF FEE-FREE EDUCATION ON FINANCIAL
PERFORMANCE OF SELECTED UNIVERSITIES IN WESTERN CAPE**

by

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Master of Management Accounting**

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DECLARATION

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ABSTRACT

The years, 2015 and 2016, saw students' tuition fee escalations in excess of 10% triggering mass protest action at a national level, aimed at preventing fee increases. Student demands were initially for smaller fee increases, then no fee increases, and then finally fee-free higher education. The debate on the mode of financing of higher education is not a new one. For decades, there have been opposing views and conflicting efforts where the financing of higher education is concerned. This study focuses on the effects of fee-free education on the financial performance of selected universities in the Western Cape. The anticipated outcomes and contributions are that fee-free higher education is fiscal suicide in the current economic climate, and is unlikely to produce the desired outcomes. Increased financial burdens on institutions will lead universities to search for cost-effective modes of education.

The findings show that universities are already operating on a tight budget to a point that in the long run the selected universities will have to find other ways of generating income.

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First of all, I would like to thank God for giving me strength and courage to effectively conduct this research. I want to express my sincere gratitude to my supervisors, Dr Benedict and Prof Obokoh, for their support, guidance and encouragement throughout my research activity.

DEDICATION

I dedicate this thesis to my late daughter Liyema Dutywa, I carry your spirit with me everywhere I go. Special thanks to my father Mr M.N Puza, his unconditional love, support and caring is what has motivated me to put more focus on my studies without him I wouldn't have made this far.....” Ndiyabulela Bhele ngenxaso yakho”

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GLOSSARY

List of acronyms and abbreviations

Acronym/Abbreviation	Explanation
HE	Higher Education
UNESCO	United Nations Educational, Scientific and Cultural Organization
ANC	African National Congress
UCT	University of Cape Town
CPUT	Cape Peninsula University of Technology
UWC	University of the Western Cape
HEI	Higher Education Institution
GDP	Gross Domestic Product
CEO	Chief Executive Officer
USAF	Universities South Africa
SABC	South African Broadcasting Corporation
NSFAS	National Student Financial Aid Scheme
DHET	Department of Higher Education and Training
REC	Research Ethic Certificate
IIEP	International Institute for Educational Planning
NPHE	National Plan for Higher Education
BRICS	Brazil, Russia, India, China, and South Africa
SADC	Southern African Development Community
OECD	Organisation for Economic Co-operation and Development
IAPO	International Academic Programmes Office
GCSE	General Certificate of Secondary Education
HESA	Higher Education South Africa
FHE	Further and Higher Education
EUA	European Union Emission Allowance
UK	United Kingdom

EU

European Union

CHAPTER 1:

Introduction

1.1. BACKGROUND TO THE RESEARCH

South Africa has experienced large-scale protests in the area with higher education. There have been a number of disturbances in the past by students who are unable to pay tertiary education, but nothing like the strikes that brought universities to a halt at the end of 2015 and the beginning of 2016 (Essop, 2016). These disruptions were the climax of a number of student protests, and almost all major educational institutions in the country have been forced to close, with students seeking a zero rise in higher education tuition fees under what has been defined as the # FeesMustFall campaign (Calitz & Fourie, 2016).

However, the campaign then took a massive turn from demanding no increase in tuition fees to demanding fee free tertiary education. The discussion focused on the disruptions that became all over in universities across the country. The adoption of free higher education is one of the alternative proposals (particularly by students and some political groups) to the existing tuition fee conundrum (Calitz & Fourie, 2016). Students claim that university education must be free, citing the African National Congress (ANC) Freedom Charter, which students believe it guarantees free higher education. The Constitution of South Africa specifies that everybody has the opportunity to higher education, which the state will eventually make affordable and accessible by taking fair steps (RSA 1996: Section 29.1[b]).

Higher education funding has always been at the frontline of talks on higher education for many years, particularly in developing countries (World Bank, 2004, 2008; Karkkainen, 2006; UNESCO, 2011; Dunga, 2013; Teferra, 2013). Some rich countries, such as the United States, the United Kingdom and Germany, have succeeded in creating a funding system to meet the needs of both equity proponents and performance candidates (OECD, 2014). The argument leads against the fact that higher education enhances the individual more than it helps anyone else, and that there is no reason for any taxpayers providing for such free capital spending in the modern - day world, that may end up in a foreign country eventually (Weber, 2005).

Internationally, the South African higher education sector has been ranked between 27 and 33 in the last 15 years by the Shanghai JiaoTong Academic Ranking of World Universities (Cloete, Mouton & Sheppard 2015). In comparison, in the Shanghai top 500, South Africa regularly has four of the five top African universities. South Africa has four of the biggest 12 universities mostly in BRICS (Brazil, Russia, India, China and South Africa) and developing nations (Bothwell, 2016), which are University of Cape Town, University of Witwatersrand, University of KwaZulu Natal, Stellenbosch University (Bothwell, 2016). South African higher education's prestige is derived primarily from the postgraduate framework. South Africa's protection and strengthening of the modern knowledge-producing subsector of higher education is essential for growth in South Africa and Africa.

In Africa, public universities in different countries have also expanded their sources of funding to some degree. For example, public universities in Kenya, Uganda and Tanzania have sought to compensate for decreased state financial funding, primarily through the introduction of 'dual-track' university fee policies. Public universities in these countries accept students apart from those who are eligible for government grants. Such 'special' students are charged full fees. A number of public universities in Kenya now derive more than 30% of their overall revenue from these fees (Ouma, 2017), and more than 40% of the income of Makerere University in Uganda comes from these students (Carrol, 2016).

State universities in Australia also collect revenue through patents, trademarks and licenses, consulting and contract research, investment, tuition fees (continuing education fees, student fees from internationally and local student fees) and some other resources (de Zilwa, 2015). Effective pricing is hardly achievable when prices are managed by governments. In this situation, if the administered costs are too high, only a few students will be able to purchase higher education (de Zilwa, 2015). Low costs, on the other hand, may starve vital capital from higher education institutions, which could contribute to wastage (internal inefficiency), as it could take too long for students to graduate. This contributes to the phenomenon described by (Johnstone, 2018) as "educational inactive, whereby students take more than the prescribed duration for fulfilment of course offerings, or more courses than are required or even beneficial, or both,

primarily since these courses (and often the accommodation costs) are priced too cheap or paid by the government."

University fees are simply the cost of tuition. Prices are measures of scarcity that are used in resource allocation. Researchers have argued that it contributes to excess when costs are too low, whereas costs that are too high add to inadequate use or consumption (Seligman, 2017). Equilibrium prices, i.e. efficient prices, prevent both inefficiency and inadequate demand (Seligman, 2017). Higher education costs were the only appropriate option for university management attempting to uphold standards, raising the tuition fees of tertiary education to unparalleled heights and forcing students to protest (Calitz & Fourie, 2016). One key element that universities around the world have used to preserve financial security is the revenue switch, which involves dispersed reliance on multiple sources of income (Johnstone, 2019).

Universities spend their resources on recurrent costs, which are directly linked to the operation of their central mission. All three income streams (e.g. government subsidies, tuition fees and corporate income, investments and donations) must continue to flow (Steve & Ramos, 2015).

Tertiary institutions trying to thrive in the current environment will have to find ways to reduce costs. Inglesi-Lotz (2014) states that if tuition fees are indeed decreasing, as if a free higher education system were to be implemented rashly, the universities will suffer from extreme costs, and the concomitant reduction in budget will eventually incur cutbacks. It can also mean that the workers' budgets must be slashed, despite undesirable effects of such action (Steve & Ramos, 2015). Universities could be forced to reduce research opportunities, and universities can be pressured, irrespective of their importance to national development, to decrease activities in accordance with the current context. This would have been the eventual consequence of the result mentioned above if there were a lack of public and private skills (Steve & Ramos, 2015).

Foreseeable cost cutbacks can decrease access to education and encourage additional students to withdraw due to loss of employment for their parents, including the parenting benefit system students (university staff) (Steyn & de

Villiers, 2016). Possible manipulation of a higher education social justice policy may lead to a free regime for the rich, since the students who are able to afford higher education would not contribute to the operating of the scheme. Under the scale and structure of colleges, postgraduate student fees are less costly than undergraduate studies, and fee-free schemes could allow the size and shape of universities to be skewed in the direction of postgraduates. The National Development Plan will fail by 2030, as university offers, student access and the population of students' decreases, with the knock-on effect of reducing innovation and ability to thrive in the knowledge economy. Although if the higher education initiative was unrealistic, the higher education market would crash.

Fees are a crucial driver of the distinction between the education sector, and in particular the financing of research universities (Seligman, 2015). The existing state funding policy provides for the same number of students who are standardly graded to receive the very same financing for each institution for various study cost of the programme (Steyn & de Villiers, 2016). Research-intensive institutions are more costly than normal educational institutions and were able to afford to pay greater than normal tuition fees before. If these revenues from tuition fees had to be restricted, universities might no longer be able to be competitive internationally as research universities, and will therefore weaken their opportunity to recruit top research staff, top academic staff and top postgraduate and doctorates students (Steyn & de Villiers, 2016).

1.2. Problem statement

University fees fulfill a significant role in the economy of public higher education. Nearly all South African public institutions are dependent on income from tuition revenues as the second biggest means of revenue following state subsidies (Paper, 2014; NPHE, 2001). Funding a stable higher education sector relies on the successful settlement of core policy problems relating to the form and function of the higher education system and who will be paying for the various facilities and operating expenses to achieve the required objectives (IIEP, 2011). Sustainable development also needs reliable state funding; a concrete policy on the role of the private sector in higher education; public private partnerships; entrepreneurial intervention; commercialization; leverage of regional and global partnerships; and multiple sources of equity financing (IIEP, 2011).

The research problem reads as follows:

There is a perceived cost implication of fee-free education on university financial performance that will result in cost cutting, budget cutting and financial planning that may eventually be detrimental to the functioning of institutions. This could lead to university managements reducing the staff budget. Universities could be forced to decrease their study offerings, in the course of adapting to the current environment. An understanding of the cost implication of the new dispensation on the university management then becomes vital.

1.3 Rationale and significance of the study

This research seeks to seal a gap in cost implications resulting from fee-free education and financial performance in selected universities in the Western Cape. Although some studies have been conducted on the cost implication of fee-free education on the financial performance of selected universities in other countries, relatively little research has been conducted in South Africa. The few studies which examine free university education in South Africa do not concentrate on the financial performance of universities, nor do they examine how the implementation of free education has impacted universities in terms of budget allocation, or what strategies are in place to mitigate the challenges of fee-free education. The findings of the study will also provide additional data and insights for the discussion on the cost implications of fee-free education on financial performance of selected universities in Western Cape. The next section is the list of objectives and the aim of the fee-free education study.

1.4 Purpose and objectives of the study

1.4.1. Purpose

The purpose of the study is to examine the cost implications of fee-free education on the financial performance of selected universities in the Western Cape, to find out how universities are financially coping after fee-free education has been introduced, as well as how fee-free education has influenced the allocation of budgets for universities.

1.4.2. Research objectives

- i. To determine the cost implications of fee-free education in carefully chosen universities in the Western Cape mainly focusing on the impact of budget allocation.
- ii. To determine the effects on financial planning of fee-free education at universities.
- iii. To understand the strategies that are in place to mitigate the challenges of fee-free education.
- iv. To explore alternative revenue sources to be used to cover up shortfalls caused by fee-free education.

1.4.3. Research questions

- i. How has the introduction of fee-free education impacted universities in terms of budget allocation?
- ii. What are the effects on financial planning of fee-free education at universities?
- iii. What strategies are in place to mitigate the financial challenges emanating from fee-free education?
- iv. What alternative revenue sources will be (or are being) used by universities to cover up shortages of funding as a result of fee-free education?
What are the effects of fee-free education on universities' financial planning?

1.5 Significance of the study

The goal of this study is to provide input into the cost implications of the government's fee-free higher education system and the impacts of the financial performance of selected universities in the Western Cape. While some research has been carried out on the cost implications of fee-free higher education for the financial performance of universities in other countries, little research has been done on policy in South Africa, and the purpose of the study is to add to the literature in this area.

1.6. Definition of key concepts

The term 'Free': According to Merriam Webber Dictionary (2016), "free means not costing or charging anything". This means that whatever the item or service that is said to be free is of zero cost, and it charges nothing.

Education: Oxford Dictionary (2015) states that “education is a process of receiving or giving a systematic instruction especially at school or university, or it is an enlightening experience”.

Financial performance refers to the degree to which financial objectives are accomplished.

Cost implication means outcome, result or impact.

Cost cutting refers to measures executed by an organisation to lessen its costs and improve gainfulness.

University a state-run or private instructive institution where students think about for degrees and scholarly research is finished.

1.7. Ethical consideration

Ethical principles set out by the Research Ethics Committee (REC) of the Cape Peninsula University of Technology will indeed be strictly followed to, as the research elicited feedback from human participants. Ethical approval will be received from the committee ahead of the start of data gathering.

The researcher’s obligation is to give affirmations of confidentiality and anonymity (McHaffie, 2000). Every effort ought to be made to guarantee that the standard of secrecy is preserved (Streubert & Carpenter, 2017). This suggests that information will be utilised and selectively revealed in such a manner that the anonymity of the source will be protected (Behi & Nolan, 2016). Measures will be enacted to guarantee confidentiality of information investigation and in the production of research results.

1.8. Limitations of the research

Given that only a few studies have been conducted on free education, but without a focus on the financial performance of universities after the implementation of free higher education, this study will be conversant by partial previous literature.

In addition, the study focuses on cost implications of fee-free education on the financial performance of selected universities in the Western Cape only.

Owing to the hectic schedule of expected participants, it is tough to find them to respond to the questionnaire, and most of the participants may be unwilling to answer some of the questions. In order to improve the response rate, participants will then be approached or visited one by one to enable them to engage in the research and to answer to all questions in the questionnaire.

Despite the well-documented reluctance of participants to fill out questionnaires in a black and white way, participants to this research will be advised to be honest while answering the questionnaire. Some of the well-documented drawbacks of the questionnaire survey approach is the poor or weak responses rate, which tends to a lack of response bias (De Vos et al., 2018). This compromises the generalization of the outcomes for the whole population. Other than visiting participants and urging them to engage in the survey, the possibility of a poor answer rate can be minimised by formulating a reasonably brief questionnaire, comprising of likert scale questions.

Given that if questionnaires are not delivered and administered in a face-to-face manner, maybe the researcher is/was unable to meet up with the participants in order to clarify unclear terms and concepts, which might have weakened the response rate (De Vos et al., 2018). To alleviate this issue, the researcher endeavoured to meet up close and personal with the respondents. Considering the sensitivity of the data in this study reluctance of certain respondents to participate in the investigation is understandable (De Vos et al., 2018). It was therefore necessary to reassure the respondents of the privacy of the study when distributing the questionnaire to them.

1.9. Outline of the study

This study will be organised into six chapters.

Chapter 1: Introduction and problem identification – This section provides the study's background and presents the research problems, the statement of the problem, the research questions and the goals of the study.

Chapter 2: Literature review – This piece delivers a complete review of prior literature and identifies the gaps in the previous literature, as well as the questions that have remained unanswered.

Chapter 3: Research methodology – This section grants the study design and methodology, as well as sampling techniques, data gathering methods and analysis used to address the objectives of the study.

Chapter 4: Analysis of data and discussion of the results –This segment presents an analysis of the data collected.

Chapter 5: Interviews and questionnaire discussions – This chapter presents the discussions between qualitative and quantitative results of Chapter 4.

Chapter 6: Summary, conclusions and recommendation – This section provides the summary and conclusion of the research, as well as its recommendations, limitations and suggestions for future research

1.10. Summary

Problem statement

There is a perceived liquidity problem that universities face as a result of fee-free higher education policy presented by the government in South African universities. The policy is envisaged to affect the financial performance of universities if the fees paid by students are affected. The policy raises the possibility that universities will resort to cost-cutting and budget reduction measures that may eventually impact negatively on the functioning of most institutions, including reduction of staff and loss of competent academic staff.

Aims and objectives

The intention of the study is to examine the cost implications of fee-free higher education on the financial performance of selected universities in the Western Cape. The objectives are to determine effects of the fee-free education strategies on the financial performance of universities and examine the strategies that are in place to mitigate the challenges posed by fee-free education in the selected universities.

Research methods

This study will employ the use of the triangulation method by the use of primary data (semi-structured interviews and questionnaires) and secondary data (documentary evidence) that will be obtained from the universities and other relevant sources to arrive at the set objectives. The analysis will be done using SPSS, while the presentation descriptive using tables and graphs and inferential statistics where possible.

Research ethics

As the study required for human participants to respond, the ethical standards set down by the Research Ethics Committee (REC) of the Cape Peninsula University of Technology will be properly enforced to ensure the privacy of the participants and the organizations participating in the study. Ethical approval was received from the committee.

Significance of the study

This research is projected to provide understanding into the cost implications resulting from the fee-free higher education policy introduced by the government and the impact on the financial performance of the selected universities in the Western Cape. Although some studies have been conducted on the cost implications for fee-free higher education on the financial performance of universities in other countries, little research has been conducted on the policy in South Africa, and the study aims to add to the literature.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The aim of this chapter is to review prior studies on fee-free university education. Through the review, the chapter identifies the gaps in the current literature regarding types of funding. This chapter begins with section 2.2, regarding challenges and issues deriving from fee-free higher education, which is followed by 2.3, a discussion of the history of higher education financing in South Africa. Section 2.4 discusses the concept of free education in the context of South Africa, while 2.5 examines the development plan for universities. Section 2.6 then discusses legislative and other mandates, Section 2.7 analyses the role of strategic planning in the funding of higher education institutions, and Section 2.8 examines the pressure a lack of proper feasibility and financing plans will put on universities. Section 2.9 is devoted to an examination of the issues around the quality of education and institutes of higher learning. The chapter closes with Section 2.10, which discusses funding from a comparative perspective of developed and developing countries.

Comment: The theoretical framework/theoretical base is missing

2.2 Challenges and issues in fee-free higher education

SA is among the most dynamic higher education environments in the world (Cloete, 2018). Although the sector has a reputation of race, race and gender inequity, that's not exceptional, meanwhile the higher education sector in the United States of America also displays evidence of injustice, with historically underserved ethnic groups being under-represented (Zusman, 2005). Racial issues associated with academic enrolment have long been an important factor adding to the discourse on diversity and access to higher education (Bitzer, 2010).

SA has a past of cost sharing in higher education. Cost-sharing reflects on spending as a responsibility of the state or taxpayers to be balanced by parents and students (Johnstone 2013). And before the very first transition to democracy in South Africa in 1994, the restructuring of higher education remained contentious (Odhav 2009). The concerns of free tertiary education and tuition fees for higher education have been repeatedly increased since the 1960s

(Langa, Wangenge-Ouma Jungblut & Cloete, 2016). Since 1994, students of color pushed for free higher education (Wangenge-Ouma, 2012). As a result, major improvements have been made in terms of expanding accessibility to the South African higher education sector, in particular to previously poor groups in society (DHET, 2012).

If accessibility and racial diversity are being used as a sign of progress, South African higher education has also seen significant improvements in past years (Cloete, 2016), but according to international practice, James (2017) suggests that free university education will also not increase equality, as there is no evidence elsewhere around the globe that it has improved enrolment rates on a large scale.

Degree programs at South African universities are expensive for students and parents, mostly because of the lack of state funding (Cloete, 2016). Although university education is expensive for some, the excellently known SA economists, Dawie Roodt, South Africa is very far from fully securing free higher education due because of an unpredictable economy (Moerane, 2015). Giving free high-quality university education to all well-deserved students would put a heavy strain upon this slow-growing economy (Vally, Motala, Naidoo, Hlatshwayo & Maharajh, 2016).

The adoption of free tertiary education is undoubtedly one of the most discussed topics in South Africa. The idea of free higher education has indeed been come to attention by different voices from fields such as the media, corporate and political spheres. The key problem is the availability of resources for free higher education, whether access to free higher education in South Africa is a viable idea and the terms of reference for the provision of free higher education in South Africa.

The massive student strikes in 2015-2016 demanding free higher education around the country and the concern this caused in higher education institutions caused former Head of the country Mr. Jacob Zuma to set up a committee in January 2016 , headed by Justice Jonathan Arthur Heher (Ndaliso, 2017).

With regard to the Constitution of the Republic of South Africa, the goal of the Commission was to review, draw conclusions, reflect and offer advice on the feasibility of offering free higher education in South Africa, including all relevant higher and basic education policies, all recommendations and proposals from the numerous presidential and ministerial work groups, along with all related to the educational policies , guidelines and regulations; the various parts of financial stability, study and evaluation of the state's strategy of funding higher education and training, and of the organizational freedom and autonomy which might prevail, together with its entities, students, institutions, the business sector and employers (The Presidency, 2017).

In a country which is at a critical juncture in its development, particularly in socio-economic and political fields, access to high-quality education is a source of stability (Gunay & Kazazoglu, 2016). In terms of developing competent human capital willing to aspire to socio-economic growth, a democratic state like South Africa will be degraded by an unaffordable and expensive provision of either basic or higher education (Ndaliso, 2017). After 2006, SA has funded a fully subsidized basic education, and it is anticipated that tertiary education might eventually be offered at a certain point (Chou, 2014). Free higher education is among the most significant debated topics in the country at present (Bitzer, 2009). Historically oppressed students have actively called for free higher education, showing their commitment and willingness, taking to the streets to express their dissatisfaction and discontent at the sluggish speed progress has been made in this area (Fourie, 2018).

In nearly every part of the globe, the demand for reform in higher education funding has increased (Coffield & Vignoles 2014). The desired reform is not only in terms of finances (Dennison, 2015), but there are also understandable questions about institutional consistency, importance, equity and relevant missions. All these challenges have to be tackled in various countries, both emerging and industrialised (Ndaliso, 2017).

The financing of higher education in South Africa has been the topic of vigorous discussion in the past decades. This controversy stretched from the sufficiency

of higher education state funding, the appropriateness of the funding system, to protests against frequent hikes in university fees (Rensburg, 2016).

The discussion at hand has primarily revolved around free higher education. South Africa has a reputation for cost-sharing, unlike many other African countries. Students, particularly students of colour, have indeed been asking for free higher education tuition for some time now and although the state has financial aid assistance system to fund promising nonetheless disadvantaged scholars (Teferra, 2016). In South Africa, the cost of providing higher education is up to R100 billion annually. South Africa adheres to a financing system in which university education recipients (mainly government and students) share costs (Omar, 2016).

Government subsidies to university education fell from 49% in 2000 to 40% by 2012, although the student workload rose over the same time from 24% to 31%. It is thus not shocking that every calendar year begins with student strikes calling for free tuition, decreased tuition, or a limit on tuition fees. The report by the Ministry of Finance review Committee proposed that fee capping be stopped (Department of Higher Education and Training, 2013). In his preface on the report, Ministry of education and vocational training noted that the capping of university tuition fees was an issue that would be properly addressed (Department of Higher Education and Training 2013).

As of 2010 to 2012, university costs at 23 public institutions in SA rose from R12.2 billion to R15.5 billion, although enrolment rates rose by only 7% over the period. Around about the same time, student debt increased from R2.6 billion to R3.4 billion, a jump of 31 percent within two years. In consideration of the universities' dependency on university tuition as a finance tool, the decrease or rescission of university tuition fees leaves universities with such a major revenue shortfall.

Discontent with higher education tuition costs is not a special issue for South Africa. Students have openly campaigned against spikes in tuition in Australia, Brazil, Germany, the Netherlands and the United Kingdom. Universities around the world have criticised the lack of state funding and the resulting spike in university tuition fees, with the tuition fees of countries as varied as Finland,

Thailand, Poland, New Zealand and Turkey coming under the spotlight. Higher education tuition increases are obviously a worldwide problem.

Financial security is a major concern for universities for the next ten years. Only universities that are willing to serve their various missions and face existing issues in a progressively complex and global environment with strong financial systems and consistency in their income flows (Jansen, 2015). Financial stability is not an endpoint in itself but aims at ensuring that the priorities of the university are fulfilled by allowing for the generation of adequate profits for investment in future academic and research activities (Van Staden, 2015). Financial development is a method to accomplish such aims, considering the varied environments, provided that the circumstances under which the universities function both allow and warrant it.

The academic year of 2015/2016 was characterised by persistent disturbances. Large-scale student strikes prompted many universities to close their facilities for an undetermined amount of time. Institutions had to come up with strategies for conducting examinations, and the government was able to allocate extra funds for such activities (Venter, 2015). The demand for free higher education is at the centre of the crisis (Van Staden, 2015). Protesters contended that the new structure was unjust to the disadvantaged, asymmetrically impoverishing parts of the society in a manner that perpetuates a historically segregated past (National Treasury, 2016).

The General Fees Must Fall campaigns of 2015 originally began as an initiative calling for a freeze on tertiary education fees for 2016, an extension of the Rhodes Must Fall movement (Jansen, 2015). In other words, it fought for free tuition, revised language laws, better wages and the insourcing of university support workers, such as campus guards and cleaners.

The Fees Must Fall strikes erupted during the week of 12 to 19 October 2015, when students began campaigning against the projected 10.5% rise in university tuition fees for 2016. The planned fee rise was the result of inevitable costs, such as a 7% increase in university workers' wages, a rise in electric bills that was greater than the inflation rate and an increase in the cost of foreign-sourced

academic content due to the decreasing Rand value (Quintal, 2015). This rise was also greater than the increase in past years, which had been in line with the inflation rate (around 6%).

In several instances, clashes erupted, characterised by destructive disturbances, arrests and lack of communication between the respective parties (Quintal, 2015). In certain cases, the fear was that the final result would be a quick-fix, populist approach aimed at soothing protests in the short term, but likely to prove detrimental in the medium-to-long term (Timeslive, 2017). The dilemma at hand was complicated and challenging. Another surge of unrest began just after government announced a proposed rise in tuition fees for 2017, despite deciding that the zero % rise imposed in 2016 was unsustainable. Students maintained that the cost of university education remained unaffordable to many (Teferra, 2016).

Numerous government programmes exist to assist students, the largest being the National Student Financial Aid Scheme (NSFAS). While NSFAS financing increases yearly, the system also only partly funds student tuition and living expenses, and the number of students qualifying for NSFAS funding remains low (Wild & Mbatha, 2015).

Education in particular, and university education in general, is widely understood to be an invaluable mechanism for national economic development and growth. It has been empirically confirmed and widely accepted that unless the people of a given nation are well educated and adequately trained, economic and social growth cannot be assured (Ahmed, 2013). Universities are businesses providing public goods: information and skills.

Babalola (1998) argued that the inculcation of education by universities has often centred on teaching, learning and research. University education is therefore a significant investment, requiring a large amount of financial capital, such that budget allocations to university education are said to be long-term investments of tremendous value both to the individual and to community (Ndaliso). While state funding is the predominant funding mechanism for universities, this is not a

viable solution for the long-term growth of universities, considering the strong demand for public financing from other social sectors (Ahmed, 2013).

The continued growth in tuition indicates that the government budgetary contribution to higher education has not kept up with the enrolment, with per capita state spending dropping since 1994. While the state allows institutions to admit more applicants, it has declined to offer adequate funding. The higher education budget in 2016 was just 0.72% of GDP, which is smaller than the African (0.78%) and globally (0.84%) averages (Makhana, 2015).

Through the amount of students in South African institutions increasing in the last two decades, government grants have fallen from around 50% of university budgets to an average of 40%. Higher education institutions are thus required to raise their payments annually in order to continue their activities (Greenaway & Haynes, 2000). Fees currently constitute about 30 to 40% of the average university budget. The remainder comes from donations, research, and other programmes.

2.3 History of higher education financing in South Africa

For social and economic development, higher education is widely regarded as essential (World Bank, 2006; Riddell & Music, 2011). In some facets of life, the lack of education also has a huge effect on a person's future, along with the possibility of receiving salaries through work. Along with other benefits of higher education in society is that it somehow produces a skilled workforce, and thus a community that can lead to economic progress and development (Tilak, 2011). This is apparent from the State of Education in Africa 2015 study, which shows that somehow a one-year improvement in the expected standard of university education will lead to a long-term rise of up to 12 percent in the gross domestic product (AAI, 2015).

Over the decades, tremendous benefits from higher education have also resulted in significant progress. Socio-economic problems including unemployment and poverty are among some of the major reasons why higher education participation has grown.

The increasing enrolment numbers in institutions of higher education have sparked debates about their funding. Higher education financing, in particular, relies largely on the government, as in many other countries across the globe (UNESCO, 2011). Karkkainen (2006) stated that in sixty six percent of the Organization for Economic Cooperation and Development (OECD) countries, at most 80 percent of higher education funding generally come from the state since the 1980s. Nevertheless, the cost burden on higher education, particularly in low- and middle-income countries, has been intensified by a number of national demands for a range of increasingly insufficient state money that deal with public higher education (Johnstone, 2018).

The worldwide financial crises has further increased burden on national budgets, to the point where a reducing share of the money spent on public services has been committed to education. Spending trends declined dramatically between 2005 and 2012 in some countries, and a portion of the downturn was triggered by the international economic meltdown, which adversely impacted the majority of nations' sources of revenue (OECD, 2015; Tilak, 2015). In addition, most countries have turned to expanding their financing sources in an attempt to sustain the increasing costs in their higher education field, many of which involve cost-sharing. Johnstone (2018) says that cost-sharing is necessitated by the apparent failure of state income in nearly all countries, which are unable to retain up through the massive enrolment and higher university costs. Methods such as student monetary assistance programmes have tended to encourage fair and equitable access by sharing higher education costs among government and students (OECD, 2015).

Other cost-sharing mechanisms that have increased their utilization over the years include dual-track systems used in other countries of East Africa, like Kenya and Uganda; deferred tuition charges, the implementation of education for certain government universities or services, the implementation of housing and food fees, the elimination of many incentives for educational support and the abolition of cost-sharing relates to a switch in costs as a responsibility to parents and students to not be paid by the state or taxpayer (Johnstone 2018).

2.3.1 Defining free higher education

Since current funding frameworks for higher education may not necessarily sufficiently resolve budgetary challenges to admission to higher education (Wangenge-Ouma, 2012), alternative methods of funding may involve tuition fees, housing, food and other relevant charges (Phungo, 2015). While other student protests campaigned for the disadvantaged to have free university, some students pleaded for free higher education for everyone (Langa, Wangenge-Ouma, Jungblut & Cloete, 2016; Parker, 2015). Mduduzi Manana, former deputy ministry of education, called upon those who can afford to contribute for their education to do so (SABC News, 2016). It is assumed that if everyone were able to manage to pay at least a fraction of their tuition, free higher education would greatly favour the wealthier (Wangenge-Ouma & Cloete, 2018). In addition, most ministers, such as the Ministry of Education and Research, say that it has never been free for higher education; the only concern is who will pay (Smolentseva, 2015).

The costs of free higher education will be borne primarily by taxpayers (Moerane, 2015). Many analysts interpret free education as a way for public funds to be lent directly and reimbursed by progressive income tax when graduates start to work (Vandenburgh, 2017). Higher education is thus not completely free. A further consideration in the discussion was that higher education is a right or a luxury.

2.3.2 Funding higher education

South African higher education funding experiences daunting challenges such as declining state sponsorship, inefficient diversification of revenue resources, rising university fees and growing requirement for support to financial deprived students (Wangenge-Ouma & Cloete, 2018). Within the last 20 years, state support has declined, university enrolments have risen, and third-party revenues have stayed unchanged (Bozzoli, 2015). Altbach (2015) claims that even those who benefit from studying must contribute as much as they had do to every other service. This means that students and parents are ultimately liable for the payment of their education. Study by the British Council (2015) has also shown that parents are now the main supporter of university education but are under-pressure as higher education is getting more costly.

Internationally, the key drivers of university funding is governments that are largely hesitant or incompetent to deliver the resources needed (Altbach, 2015; Smolentseva, 2015). Higher education financing has gradually transferred from either the state to the citizen and South Africa is no different in this respect (Berger & Kostal, 2002), as state financing for universities have also decreased (Wangenge-Ouma & Cloete, 2008; Bloch, 2015). In fact, state funding fell from forty nine percent of the university budget between 2000 and 2014 to thirty eight percent, a decline of more than twenty two percent. Alternative way to look at minimizing financial assistance is to glance at the contribution per student rather than the total government part of the financing.

Student financing declined by twenty five percent in 2000 and 2004 and declined by 8.3 percent in 2000 and 2013 (Makou, Wilkinson & Bhardwaj, 2016). It is therefore clear that government financing has steadily decreased over a significant period of time in South Africa compared to student figures (Bozzoli, 2015). The significantly reduced government subsidies have severe repercussions for the supply and demand of public higher education over a long period of time (Berger & Kostal, 2002; Zusman, 2005), although private higher education has been on the rise, accessibility still depends heavily on student grants and loans in Africa (Altbach, 2015b). Students are however supported with university trust funds in certain cases. eg, R1 billion was invested by South African universities in 2011 to support disadvantaged populations whose financial aid was directed to trust scholarships, donor financing and school fees (Cloete, 2015). In other words, almost 500 000 students earned financial assistance from the institutions themselves.

In most parts around the world, universities utilize student loans which are only repayable if and when a recipient earns higher than a certain amount (Hull, 2015). However, loans to disadvantaged students in developed countries really aren't viable, as lending institutions rely on high pass rates and high academic performance. In South Africa, this creates a problem, with financial crisis and growing drop-out numbers among first-generation black students in particular (Cloete, 2015), whereby reduced public grants, like the NSFAS system, do not sufficiently cover university expenses (Altbach, 2015a; Hull, 2015). As a result, students will need to seek different forms of funds to cover themselves.

2.4 Understanding the concept of free education in the context of South Africa

Universities South Africa (USAF) (2017) argued that after the announcement of the new funding scheme, SA will still have a fee-based higher education structure. A reform curriculum for this initiative might have to be launched, which will provide funding for only entry-level students at higher education institutions (News24, 2018). This will be expanded towards the next stage every year for a term of five (5) years wherein the next phase of higher education will be reached. According to Bawa, CEO of USAF, every institution will proceed to establish its unique fee structure to be accepted by the board of directors of the university that may therefore be financed by scholarships subsidized by the Department of Higher Education (News24, 2018).

Such a policy may appear to provide free higher education to everyone, but this does not, in practice, do so because a large amount of potential students remain outside the parameters of admission to higher education. While some are lucky enough just to gain state funding, they are often rejected by universities because of the different requirements set by the institutions. On a brighter note, some students are provided accommodation to learn, but not financial aid, which then goes all the way back to review the selection criteria for the free higher education scheme currently being carried out in South Africa.

2.4.1 Free higher education as right or privilege

Student protestors in many instances have stated that they are actually protesting for their rights, like one which they described as a free higher education (Moerane, 2015), reflecting on the assumption that some countries around the planet are striving for education as a fundamental human right (Christie, 2017). In Chile, for example, the aim of free higher education was never to improve accessibility but rather to the concept of human rights: it must be provided free of charge if higher education is a human right (De Gayardon & Bernasconi, 2016). Acheampong and Kayange (2016) both accept that all knowledge, regardless of socio-economic background, is a human right which must be provided to all.

The Bill of Rights chapter of the South African Constitution states that everyone has the right to:

"Basic education, namely basic adult education; and tertiary education, whereby the government may ultimately make inexpensive and accessible by reasonable means (Bibliothek of Congress 2017). The term inexpensive here has been interpreted by Parker (2015) as indicating that the higher education system must be able to provide the necessary space for studying, which implies that higher education must be affordable.

The Heher Commission (2017) on the feasibility of free higher education, the South African Department of Higher Education and Training (DHET) has found that higher education must be viewed as not a human right, but rather as a public and private endowment funded only partially by the government. The system can then preferably be followed through the cost-sharing model (Stuurman, 2016), and is sufficient for the additional right to be made available and affordable (Parker, 2015). The issue of quality is also directly related to free higher education, as is the issue of whether a free product or service may indeed be deemed to be something of great quality.

2.5 Development plan for universities

The New Growth Strategy (Economic Development Department, 2011) seeks to place South Africa as a hub of higher education in the African continent. Somehow, SA universities must satisfy the following goals (Wangenge-Ouma & Cloete, 2008) outlined in the national Higher Education Policy:

- Production of graduates required for social and economic development in South Africa;
- The attainment of equality in the South African higher education system;
- Accomplishment of participation of the South African higher education system;
- Maintain and promote research;
- Restoration of the institutional framework of the higher education sector (Dept. of Education, 2001).

The Government's goals involve expanding the number of university students studying from 950 000 to around 1.62 million, expanding the amount of doctoral personnel educated in higher education from around 34% to 75%, having at least

5 000 annual doctoral graduates by 2030, up from 1 420 in 2010, and improving the development of research, science and technology (National Planning Commission, 2011). The number of enrolment rates in universities soared to 1.001 million students in February 2016, almost five years before the 20th yearly government-wide development programme, to 2,060 yearly PhD students (National Treasury, 2016). Over the next fifteen years, organizations obviously have a lot to do if these goals are to be achieved.

Moolman and Jacobs respond to the short-term impact of zero percent increase in credentials and conditions of service. Academics are rapidly facing restrictions on finances and demands to increase external financing (DHET, 2013).

Ultimately, through study from South African universities, the state wants an increase in quality education and creativity (National Planning Commission, 2011; DHET 2013; Wangenge-Ouma & Cloete, 2008). The accomplishment of these goals, however, would require a substantial expansion of universities' infrastructure; it would require the setting up of efficient administration systems; as well as substantial resources to hire, train and maintain high-quality personnel (DHET, 2013). Therefore, the government's inability to reach its commitments is being exacerbated by financial pressures, including freezes on tuition fees (Wangenge-Ouma & Cloete 2008; DHET 2013).

2.5.1 National budget

The national budget for 2017 suggests that this counterproductive scenario is already emerging. An additional R5-billion was planned for 2019-2020, in addition to the R32-billion previously reprioritised to higher education for the previous budget period. It is clear from the specifics of the budget that the majority of these vast sums are dedicated to financial aid, which indicates that the crucial shortage of per capita university subsidies is not being properly addressed. In addition, the budget allows for significant increases in attendance at institutions.

2.5.2 Income and expenditure of individual university

For each government higher education institution, the very first indicator utilised is a measure of its total revenue from all sources and its total spending on all operations (National Treasury, 2016). The overall revenue includes government

block grants and allocated transfers, tuition and accommodation fees for students, and other private income. Total government spending covers the basic costs of teaching and research, all institutional operations that support teaching and research, the costs of central management of the university, student housing costs, and the costs of loans and other financial resources (National Treasury 2016).

2.5.3 The higher education budgets

Unless the South African government were ever to invest just 1% of the country's gross domestic product (GDP) on higher education, these would sum to R41 billion. Again, spending on higher education contributed to R30 billion for the 2015-2016 fiscal year (Pink & Noblit, 2017). In previous years, government investment on higher education ranged from 0.68 percent to 0.72 percent of GDP (Cloete, 2015). Particularly in comparison to certain other countries, the funding contribution for higher education in South Africa was substantially lower.

For example, the contribution to the GDP spent in higher education in Brazil is 0.95 percent, 1.4 percent in Senegal and Ghana, higher than Two percent in Norway and Finland, and 4.5 percent in Cuba (Cloete, 2015). South Africa's budget for higher education, on the other end, is just 12 percent of the overall funding for higher education. This is poor compared to certain countries whereby the figure is approximately 20 percent (Bozzoli, 2015). As the country continues experiencing tremendous monetary strain and also suffered a fall in the status of international financial credit ratings agencies, it is expected to continue to struggle to seek sufficient financing for higher education (Bloch, 2015).

2.6 Legislative and other mandates

The Department of Higher Education and Training Annual Report (2016/2017) explains that the “statutory function of the Department of Higher Education and Training derives its constitutional power from the Constitution of the Supreme Law of the Republic of South Africa, the Charter, as set out in Section 29, reads in Schedule 4, which specifies education at all grades, except higher education, as a functional department of combined national and provincial legislative competence”, while Section 29 states as follows:

"Firstly, everybody has the right (a) to primary education, namely basic adult education; and (b) to further education, whereby the government must eventually make affordable and accessible by appropriate steps."

Secondly, everybody has the right to receive education throughout the official language or languages of their choice in state education institutions whereby the education is equally feasible. In order to implement efficient accessibility to and implementation of such a right, all equal educational opportunities, particularly small medium-sized institutions, should be accepted by the government, taking into consideration (a) equality (b) feasibility and (c) the need to resolve the implications of past ethnic discriminatory laws and regulations.

Thirdly, everybody has the right, through their own costs, to set up and maintain independent educational institutions that (a) may not participate on the basis of race (b) are accredited or approved by the Government and (c) maintain standards that are not inadequate to those of comparable public education institutions. Fourthly, it further notes that subsection three does not in effect prohibit public funding for private education institutions (Annual Report of the Department of Higher Education and Training 2016/2017). This offers a strong view as to when and how education must be designed for both public and private education schemes throughout all levels, and the lack of tertiary education has indeed destroyed the appraisal of the national legislature.

Salim Vally in Education Policy Consortium Paper 5 (2015) points out that, in the lip service of changing deprived communities, education is subject of a neo-liberal obsession with technocratic and economically responsible governance. This has affected not just the observable aspects of curriculum, but also its content and quality.

2.7 Role of strategic planning in higher education institution (HEI) funding

The HEIs are required to maintain the defined set of parameters and policies to preserve and enhance the quality of programs that address the concerns of the citizens they serve. Strategic planning ensures ensuring public-funded institutions such as HEIs retain responsibility to external partners (state, local and national governments) (Welsh et al., 2016). In addition to this particular ethical

responsibility, Taylor, Machado and Peterson (2018) claim that HEIs have also implemented strategic planning to introduce policy changes that will allow them to deal with changing economic conditions. Taylor, Machado and Peterson (2013), Kettunen (2018) have proposed that HEIs implement better strategies to help them adjust their policies and tactics in accordance with national and international agenda.

2.7.1 The role of universities in the South African context

As part of society, the tasks of universities are mainly in teaching, research and community participation (DHET, 2013). It is also assumed that good education impacts on the health, stability, standard of living, self-esteem and ability to positively participate and inspire people (DHET, 2013; National Planning Commission, 2011). Higher education directly answers the requirements of the country's economy and promotes growth (DHET, 2013). This leads in higher revenues and development, allows the development of a knowledge-intensive economy easier and serves a key role in contributing to reduce the increasing unemployment rates (National Planning Commission, 2011). The growth of higher education can be seen by both the DHET (2013) and the National Planning Commission (2011) as the gateway to the future of South Africa. As a result, the state's increasing expectation and demands is that students from diverse institutions, including those who have had trouble attending university, must make sure that they study and follow up fast.

2.7.2 The importance of tuition fees

The degree to which students or their families contribute to the cost of studying at university varies widely across the globe. Though in many countries, such as Japan, Korea, the United Kingdom and the United States, HEI fees average \$5,000 and more annually, university enrolment is available for free in the public university systems of all Nordic countries and many other continental European countries (OECD, 2014). In national disputes, supporters contend that tuition fees provide the universities with the money they need to sustain quality and ensure that future graduates are able pay for part of the services they obtain (Kirby, 2017).

Tuition fees are an increasingly significant institutional part of the funding of universities in Canada. Jones and Young (2015) suggest that the dynamics of the economic system, as well as federal-provincial relations in Canada, have an effect on higher education policy, while Fisher *et al.* (2016) note a general propensity to finance individuals instead of universities. Quirke and Davies (2018) analyse tuition fees in the light of new business focus and institutional entrepreneurship operations.

Kirby (2017) and Fisher *et al.* (2016) attribute tuition increases in Canada to declines in federal government funding. Conlon (2016) and the Canadian Association of University Teachers (2015) are tracking the reduction in government financing and associated effects on schooling. It has been noted that institutions have previously resorted to charging higher tuition fees in order to cover the gap between the price of offering education services and diminishing funding grants (McKeown, 2017).

2.7.3 The role of tuition fees

Due to the cost-sharing scheme, that is as ancient as higher education in the country, university fees have been the primary source of alternative funding for South African universities. In particular, the reality is that South African institutions are able to charge tuition fees even without policy controls, has made it very easy to use 'tuition fees' to cover for the shortcomings of those other financial resources, in particular government budget allocations. The status quo is a rise in university fees prices, considering the rapidly falling state budgets and dwindling avenues of other private income. University fees and other revenues are one of the fastest-growing streams of institutional income for all universities, with UWC being one of the most focused on university fees and other fees. Between 2004 and 2015, the university obtained an annual estimate of 21.72 percent of its overall revenues through 'tuition fees' and 41.79 percent of the total independent revenues of the university.

The fees paid by international students are generally levied by individual institutions and are therefore largely controlled by their countries of origin of the student and the field of study. "International students are usually classified into three main groups: some of the participating countries of the Southern African

Development Community (SADC), an international trade block consisting predominantly of Southern African countries; some from the rest of Africa, i.e. non-SADC countries; and a few from non-African countries."

Though SADC undergraduate students pay university fees equivalent to those of South African students, non-SADC students generally pay higher fees, as much as twice the rate paid by South Africans in some instances (<http://www.up.ac.za> 2006). As a trend, universities with too many more students outside SADC earn more international student revenue than those with a student population, mostly from SADC countries. The tradition of charging significantly higher fees for international students was adopted in 1997 after the Government of South Africa stopped paying international students.

International students are a massive market from which South African institutions obtain extra revenue. Thus one of the motivational techniques of South African HEIs to rising non-government revenues is to draw more international students who pay higher tuition fees. A number of public institutions in SA have developed sections that deals primarily with and cater for international students. However one unit is the International Academic Programmes Office (IAPO) at University of Cape Town. The other critical goal of IAPO is to generate money for UCT, in addition to bring UCT to the globe as a hub of academic excellence. The IAPO recorded actual hedge income of ZAR 6,200,000 from full time international degree courses in 2002. "In the following years, revenues for 2003, 2004 and 2005 were as follows: ZAR 7,058,088, ZAR 8,342,129 and ZAR 7,526,219 respectively" (Canning, e-mail, September 2006). Although the revenue provided by the IAPO is comparatively small, it identifies the extent of dependency of the UCT on the international revenues sector.

2.8 Without a proper feasibility and financing plan, universities will be put under tremendous pressure

As free higher education has been proposed throughout South Africa, this has placed tremendous pressure on institutions to accept many qualified students, beyond the number of students needed and contributing to potential overcrowding (Parker, 2014). The academic institutions have also stressed that the idea of free higher education in terms of execution has not been properly

evaluated. Although most students requested to enroll free of charge in 2018, many institutions have faced admission problems (Metcalf & Hilary, 2018).

The perception of free higher education is still in initial phases of development; so, clearly, there is already a lot of doubt, and institutions will be under intense pressure to serve a growing number of students, forcing institutions to expand in the provision of additional facilities (Snodgrass, 2016). The University of South Africa (UNISA) (2017) has indicated that without a solid feasibility policy or funding mechanism, the implementation of free education in South Africa will put universities under tremendous pressure to accept more students (Muller, 2018). According to UNISA (2017), a majority of South African universities are only on the edge of their capacity and will thus not grow without substantial capital expenditure.

In addition, Ligami (2017) states that academic institutions are already under strain to be imaginative and therefore need substantial capital to improve that development is feasible, but South African institutions will be further intensified by the introduction of free higher education without adequate analysis into its feasibility and impacts. Premature adoption of free higher education could further escalate the problem, with South African universities already operating on a low budget and without adequate investment in infrastructure. Several institutions are already crowded, and lecture halls accommodate an excessive number of students, so the advent of free education will undoubtedly put tremendous pressure on the future of universities.

2.9 Quality of education

A critical connection exists among access to education and the quality of it. If education is treated as a privilege, it is of no use, but its consistency is weak, and failing is unavoidable. Although South Africa seeks to provide high-quality higher education, it also seeks to reduce and eradicate inequalities. Cloete (2016) argues that these twin goals have not been achieved concurrently by any higher education system in the world. Therefore, widening accessibility (by making it free) to higher education will mean reduced levels of persistence and graduation (Bitzer, 2010). Majozi (2016) contends that consistency would be affected if the value of a product or service is zero. In South Africa, for example, the standard

of public services such as healthcare is poor, mainly since it is inexpensive, and consumption outstrips the supply. Those who seek free higher education, therefore, must consider the consequences of an imminent decline in quality.

Performance remains one of the most critical metrics for the success of any university (Allen, 2005). High-quality education is certainly not assured at many public universities where government financing is lacking (Bitzer, 2010). While tertiary education is funded by a close to zero economy or an overpopulated and excessively complicated government dispensation, the quality of such education tends to deteriorate. This takes us to the issue of whether free higher education is still sustainable within the context of South Africa.

2.10 A comparative perspective on funding in developed and developing countries

Governments are the largest source of funding in developing countries. Albrecht and Ziderman (2016) point out the need for developed countries to put in place effective funding structures strategies to regulate the supply of services and to build ties among grants and higher education admissions. The higher education system in developed countries still has shortcomings with regard to the standard of faculty, students, and resources and independence, and these factors limit growth (Mundial-Unesco, 2000: Salmi, 2014. Tilak (2017) reports that: (1) over-extended higher education and (2) highly government-subsidized higher education are the main challenges for the HEI sector in developed countries. Furthermore, Deogratias, Bugandwa and Mungu (2009) illustrate that it is challenging for HEIs to implement any systemic transformation towards commercial exploitation or market orientation without adequate freedom.

2.10.1 Funding higher education

The sustainability of South African higher education has experienced problems such as limited government subsidy, insufficient diversification of revenue capital, increasing tuition fees, and increased demand for financially limited student support (Wangenge-Ouma & Cloete, 2008). Government subsidies have decreased over the past 20 years, tuition costs have increased, and third-party wages have remained flat (Bozzoli, 2015).

Altbach (2015) believes that as much as they would for any other service, those who benefit from studying should participate. This means that students must eventually be responsible for their education expenditures. British Council (2015) finds that parents are still the key supporters of tuition fees, but as higher education becomes more expensive, they consider it financially challenging.

2.10.2 Sustainability of universities

In order to provide a financially viable higher education environment, the financial stability of universities students and parents have to pay, or the state has to pay, or institutions have to do something with the same (or less), there is no magic bullet approach to address HEI financing issues (Norton & Thompson, 2014). In the review of the Parliamentary Inquiry on the Examination of the Funding of Educational institutions, the former Minister of Higher Education, claimed that it is also not surprising that without exceptions, all of the country's universities acknowledge insufficient funding as the primary reason for the failure of the higher education sector to assess its potential and to fully enforce the transition agenda of the country.

Booyesen (2016) reports that higher education financing becomes more limited as governments around the African continent face budgetary pressures due to instability in the global capital markets and sluggish local economies. The actual average national spending in these countries as a percentage of gross GDP is 0.78%, far below that of member countries of the OECD, which in at least 17 countries is much more than 1.5% of GDP (Bray & Kwo, 2013).

This raise concerns as to whether or not South Africa's fee-free higher education will be sustainable and whether, in the longer term, resources will be generally available for universities to function. Booyesen (2016) claims that the budgetary allocation of the South African government to higher education funding gradually increased for seven years, from R11 billion in 2006 to R26 billion in 2013. The then-Finance Minister Mr Malusi Gigaba proposed a whopping R57 billion for the implementation of free higher education in his 2017/2018 budget statement, and this large sum is intended to cover only first-year students (Mokone, 2018).

In 2019, this number was projected to rise, as second-year students will now be included. This is expected to continue for the next five years. In response to the concerns of experts and media, previous Minister of Higher Education and Training, Hlengiwe Mkhize stated that funding for higher education will be possible for the next five years, but the state does not foresee what will occur thereafter (ANN7, 2018). It can be concluded from the Minister's statement that the state did not carry out feasibility report to assess the long-term reliability of the implementation of free tertiary education.

2.11 The South African economy and the higher education budget

There are several challenges facing the South African economy, especially high unemployment rate, poor educational scheme and high social inequality levels (Acheampong & Kayange, 2016; Zusman, 2005). If just one percent of the state's GDP were to be spent in higher education by the South African government, that would be around R41 billion. The tertiary education expenditure, however, was R30 billion for the financial year 2015-2016, R68.9 billion for the financial year 2017-2018, and R57 billion for the financial year 2018-2019. SA higher education funding as a proportion of GDP has been between 0.68 percent to 0.72 percent in recent couple of years (Cloete, 2015).

2.11.1 Benefits of alternative fund sourcing to universities

Benefits accruable to public Niger Delta universities engaged in sustainable fund source. These results comprise the attainment of skills required by students, the cooperation of the growth of workers, reduced reliance by universities on government funds, the generation of more employment by entrepreneurial practices, a substantial improvement in the standard of university education, advancement of infrastructure and equipment, and the realisation of more internally generated revenue (IGR). There were no major alterations amid the views of the scholarship and other staff members on the creation of facilities and equipment, the attainment of technical skills and the growth of employees.

Uche and Wordu (2015), Ayo-Sobowale and Akinyemi (2011), Etuk (2015), Envi (2009), Anvamele (2014), and Ojule (2012) describe numerous benefits of alternatives financing sourcing, including increased revenue generation, financial freedom, work development for the unemployed, development of facilities and

enhancement of educational quality. Enyi (2015) argues that different sources of financing might deliver a feasible alternate source of government higher education financing.

2.12 Implications of budget cutting

Many universities are targeting faculty positions in order to counter the need for budget cuts by increasing the use of graduate students and part-time and/or contract teachers to teach classes (Zumeta, 2014). Other cost-saving strategies include expanded use of technology as an educational platform to attract many students (Zumeta, 2014). In the 1980s, when institutions had to make extreme cuts, many leaders intensified their grips on institutional budgeting processes and established centralised goal-setting and academic preparation structures in which small groups of managers made decisions regarding programme cuts, programme closures and allocation of funds (Dill, 2015).

2.13 Challenges during England's free HEI era

The UK higher education scheme includes institutions that offer standard BA and BSc qualifications (which typically require three years of full-time education) and also some post-graduate schools, some of which can also provide higher education, but also have quicker technical and vocational qualifications. Note that UK universities are essentially public: even when they are not nationalized, despite having a high degree of autonomy, they are heavily subsidized and controlled by the government (Watson, 2014).

Although the UK HEI system comprises a wide range of private institutions, almost all tertiary education enrollment rates actually occur in government funded institutions. Prior to 1998, state institutions in England were primarily funded by state education authorities and the federal government in such a manner whereby tertiary education for local full-time students had been entirely available for free. To better fund tertiary housing expenses, low-income students would apply to the state for maintenance grants, and all students would receive limited government maintenance funds to be repaid following graduation via mortgage-style loan arrangements (Dearden et al., 2014).

About 1961 and 1986, the overall enrolment level (full-time equivalent) rose by 450,000 (a 176 percent improvement from approximately 250,000 students),

while the enrolment level grew by 750,000 or 91 percent in the decades following 1986. This dramatic growth was motivated by both demand and supply. The amount of students left in university have increased significantly, most probably as a consequence of the adoption of the General Certificate of Secondary Education (GCSE) in 1988, that consequently contributed to an improvement in the performance of the examinations and, in particular, to a larger variety of university-eligible students (Blanden, Gregg & Machin, 2005). In addition, appetite for education increased as students reacted to rapid improvements in economic contributions to universities in the late 1980s and 1990s, fuelled by a lack of skilled labor (Blanden & Machin, 2014). Government interference was indeed partly responsible for expansion, as improvements in the manner that institutions were supported generated substantial pressure for them to expand.

such was exacerbated by a substantial switch in strategies at the beginning of the 1990s, when educational institutions were set up as universities through financial regimes, which meant that they could actually become independent universities and offer their own qualifications (Williams, 1997). This huge increase in enrolment rates has put a lot of pressure on England's free higher education system. Government financing has not yet become sustained and organizational revenues per comparable full-time student have fallen by more than 39 percent in actual terms in the decades after 1986. In particular, in 1994, the state sets stringent limitations on the majority of national students that each institution may enroll. As a result of these restrictions, the funds of each student began to fall throughout the 1990s. By 1998, financing had declined to an unprecedented lowest of £7054 (R149083.70) for every student each year, significantly below the level of each student allowance provided by the scheme in 1973.

2.13. International differences in funding sources and resource allocation

The following overview of the university financing schemes analysed reflects on financial resources that sustain these institutions, the distribution of state subsidies to institutions and the distribution of internal resources. The aims are to explain the vast variations in how universities collect money from external sources and to illustrate how these variations are expressed in the internal

budgeting and allocation process. This indicates that the value of private financing and market-driven or performance-based public finance differs greatly.

2.13.1 Swiss universities: ETH Zurich and University of Basel

The Swiss Federal Institute of Technology in Zurich (ETH Zurich) is Switzerland's largest and most important higher education institution of physics and engineering. It has a yearly budget of 1 billion Swiss francs, which is equal to 690 million US dollars (ETH Zurich, 1998a). Among some of the revenue streams, the central government has a leading role, contributing about 85 percent of the university budget. This prevailing flow of income is not linked to performance. The national government agrees on small improvements from year to year. The management of the ETH finds the strong and reasonably secure support from public funds to be a factor guaranteeing academic freedom. Such independence itself is seen as a requirement for curiosity-driven research and successful long-term growth (ETH Zurich, 1998). This ideology is mirrored in the distribution of the internal budget. The guiding force behind this redistribution is the quantity of professorships and faculty vacancies in the departments. A professorship is usually provided with a minimum of almost 13 faculty spaces (ETH Zurich, 1998). In addition, the original number of spaces assigned to a full professor does not change.

2.13.2 Student enrolment in the Kenyan context

The general appetite for education and the government's responsiveness also influenced a growth in enrolment in public universities in Kenya. The growth in enrolment was especially remarkable between 1982/83 and 1990/91, with yearly enrolment rising from 2,502 in 1982/83 to a high of 20,837 in 1990/91, culminating in a cumulative enrolment of over 40,000 by 1995 (Table 2.1). The unexpected growth of public universities described earlier had a direct effect, not just on teaching, but also on the usage of physical infrastructure, and the government's academic year 1990/91 contributed to the implementation of a dual-intake scheme in public universities. The institutions were forced beyond their capability. For example, classes of more than 500 students were not unusual, lectures could not be carried out, public services such as libraries and dining halls were overcrowded, resulting in student protests leading to repeated university closures.

Table 2.1: First Year Intake in Public Universities

Year	Intake	Percentage Change (%)
1983/84	2,502	
1984/85	3,538	41
1985/86	3,538	23
1986/87	3,550	29
1987/88	8,774	147
1988/89	7,242	(18)
1989/90	7,349	1
1990/91	20,837	187
1991/92	9,463	(54)
1992/93	10,189	7
1993/94	9,215	(9.9)
1994/95	8,250	(10.8)

(Source: Economic Surveys)

2.14. Cost-sharing in higher education

Cost-sharing is defined as shifting responsibility for higher education costs from being funded entirely or partly by the state or through taxpayers to being shared between parents and students (Johnstone, 2018). Johnstone (2018) describes the different ways of cost-sharing which have been adopted in both developed and developing countries, such as a) the implementation of university tuition fees where government educational institutions has historically been free; (b) a dramatic growth in university fees whereby tertiary education fees have indeed come into existence; (c) the implementation of user charges for the rehabilitation of spending on previously funded food and housing; (d) Abolishment of university fees or scholarships; (e) an expansion in the effective repayment of student loans; and (f) an effective incentive for the fee-based private higher education sector to capture more of the higher education demand.

The variation in the implementation of university tuition fees, which is particularly prevalent in countries that are inherently and politically adverse to tuition fees, but still recognize the need for such tuition fee revenues, are strategies that preserve free university for students participating at the top of the competition

entrance exams (sometimes referred to as government-sponsored s). Such paying students and HEIs who admit them are mostly common in Uganda, Kenya and Tanzania (and also in many of the countries of the former Soviet Union and Eastern and Central Europe). This cost-sharing approach for higher education maximizing enrollment rate has been notably successful in two major East African public universities: the University of Makerere in Uganda and the University of Nairobi in Kenya (Ssebuwufu, 2018; Kiamba, 2017).

Johnstone (2018) suggests that tuition fees in state universities are particularly important when: (a) there is an urgent need for additional funds to boost quality and develop infrastructure; and (b) there is very little prospect of increased state or donor financing for the public higher education system. (c) higher education is shared by comparatively fewer and overwhelmingly wealthier parents of children; (d) the costs of public higher education is paid predominantly by all citizens by directly or indirectly income tax; and (e) the subsidy is given by means of accredited grants and readily available loans to all genuinely eligible students; most of these criteria apply in almost all African countries , making some kind of public higher education fees necessary for economic growth and promoting more equal participation. Even so, university fees as a policy are still very troublesome and are still not applicable in many African countries, with the exception of South Africa and the above-mentioned universities in East Africa and Ethiopia.

2.14.1 Cost-sharing in Africa

Cost-sharing is generally perceived to be the introduction or, in practice, a sharp rise in university fees to cover some of the cost of the university or user fees to reduce some of the burden of housing , food and other student living expenses that could have been met largely by governments (taxpayers) or institutions (Johnstone, 2013, 20198). Even so, there are a variety of other possible steps, or what can be effectively thought of as stages, of cost-sharing (Johnstone, 2018). They are definitely early and relatively easy, with fewer budgetary consequences, but more likely to be politically acceptable.

Such interventions might include the introduction of small non-educational fees, the stagnation or removal of scholarship funds (particularly in the inflationary economy), the use of more students in the private tuition fee-dependent sector

(sometimes with some public funds), or a rise in reimbursement rates (i.e. such methods of cost-sharing may well have a possibly greater economic effect, but may also be more politically appropriate than the adoption of compulsory upfront school fees for all students (Johnstone, 2018).

The so-called dual track or parallel tuition fee (as in Kenya) provides a method to allow for a tuition fee for students who are not educationally admitted in a insignificant and restricted category of students whose education is entirely state-sponsored (HESA, 2015). The reality of this path retains a certain type of free higher education fallacy, though it would never be accepted by other students, even if academically qualified (Johnstone, 2018, 2016, 2013). Australia introduced another type of loan, the Contingent Income Loan, and New Zealand and Scotland also adopted it. As per the 2003 Government White Paper (Department of Education and Training, 2013), it was on the table for the rest of the United Kingdom in 2003 and is specifically to be implemented in 2004 in Ethiopia. This scheme is a tuition fee that can be paid as an income-contingent debt from any of the majority of students, to be returned only after the student borrower has been employed and is earning an income.

2.14.2 Cost-sharing in Uganda

A somewhat more hostile dual-track education strategy, and probably the utmost significant instance of institutional cost-sharing in sub-Saharan Africa, is the policy implemented at the University of Makerere, Uganda. As mentioned by Ssebuwufu (2016), Sawyer (2018), and Court (2016), more than 70% of students at Makerere pay tuition. The state and university can therefore claim that Uganda and Makerere provide free higher education (20-30% to the very fortunate) while the revenue from fees has greatly improved the budget, power, and standard of education of Makerere (Salmi, 2016; Pillay, 2014).

As per the World Bank and UNESCO (Task Force, 2017), Makerere has advanced from the edge of failure to the stage that it strives to be one of East Africa's leading academic and capacity-building resources, as it was in the 1960s. It can be deduced that these dual-track strategies have indeed been fruitful by most metrics, including increased salaries, improved recruitment of faculties, and much-needed enhancement of facilities and technology. More specifically, they

are a politically convenient way to bring education into a world in which the dominant political philosophy is fiercely anti-tuition (Denneen & Dretler, 2018). Clearly, a policy that appears to dispute the suitability of university tuition fees faces difficulties, because free places are extremely small in number, and, not surprisingly, many of these places go to children of the most fortunate groups who are the best educationally trained and the most optimistic (Johnstone, 2018, 2016, 2013).

2. 14.3 Cost-sharing strategy

From the point of view of social needs, as university education supports not only society at large but also individuals in particular, there is a need to switch part of the financial burden from the social sphere to the individual domain. Indeed, this transfer is happening more or less globally (Salmi, 2015; Pillay, 2014). Cost-sharing is the diversification of state spending from sharing between parents and students, which is very much linked to the paying of university tuition fees.

While many universities earn a important share of their revenue from student tuition fees, this is an unexploited pool of funding for university education in Nigeria. Cost-sharing strategies have recently remained recognised to be one of the most efficient and appropriate ways of funding higher education globally (Obasi & Eboh, 2017; Simbowale, 2013). Since the Nigerian government cannot bear the burden of financing university education alone (Ahmed, 2017), it should encourage individuals to contribute to the financing of the system.

It is also necessary to note that, while the national government retains a policy of fee-free education in all government-owned universities in Nigeria, maintaining that the government has a responsibility to supply qualified Nigerians with fee-free university education, the government has neglected to provide sufficient funding to support university education in the development of high-quality graduates (Olayiwola, 2018; Abdulkareem, Fasasi & Akinnubi, 2016; Akinyemi, 2017). According to Aina (2018), on the basis of the above-mentioned literature, it is obvious that in the near future, the cost-sharing approach will be the only alternative to fund university education, particularly in Nigeria, and that university education is both human and resource investment, requiring vast amounts of financial resources.

2.14.4 Graduate tax strategies

Graduate taxes have also been used as another means of financing education in advanced Asian countries. According to Tilak (2017), a graduate tax is a particular education tax to be charged on those companies that employ graduates. Resources generated by the education system are used by all sectors of the economy. Tilak (2017), also notes that these sectors do not explicitly contribute to the funding of education, while they are the main recipients in terms of productivity increases due to their employment of graduates (Johnstone, 2018, 2015, 2003). They should then be asked to bear the cost of generating graduates who work with them in order to meet their strategic goals.

In many other countries, public financing for higher education is built on the general tax received as revenue. Therefore, delegated taxes, such as the graduate tax, have been described as another source of additional private income in which institutions cooperate with people and organisations who have benefited from the human capital generated by institutions.

The general argument is that private employers who hire higher-skilled labour forces should be expected to share the expense of generating human capital (Obasi & Eboh, 2018; Simbowale, 2016). The tax imposed should be based on the price of output and the number of graduates working (Ahmed, 2017). Even so, the key drawback of the above proposal is that it is very difficult to obtain a complete list of all private employers of labour, as well as of graduates who have served outside of the country. Often, some employers prefer not to hire a graduate precisely because of this graduate tax.

2.14.5 Revenue supplementation strategy

According to Ogbogu (2017), the revenue supplement approach is a chosen path towards the financial sustainability of institutions of higher education. It involves university entrepreneurship, such as leasing of university facilities, as well as commercial promotion of research discoveries, university/business partnerships, selling of faculty services, consultation, creation of specialised and marketable training and scholarships, establishment of guestrooms, bookstores and petrol

stations. According to Okebukola (2016), the state alone cannot finance university education because of the growing price of delivering university education, due to a mixture of high enrolment numbers and the aversion of universities to adapting more effective and profitable financial management styles (Makhany, 2015).

The National University Commission (the regulatory body for Nigerian Universities) released guidelines in 2004 for all national government-owned universities in Nigeria to produce at least 10% of their overall annual budget (Ahmed, 2017). As a response, many of these universities have been compelled to participate in revenue-generating practices in order to access alternative sources of income (Obasi & Eboh, 2017; Simbowale, 2016). Many of these means involve the implementation of user charges and a range of other revenue-generating fees and services. However, several of these universities have not been able to reach this 10% goal.

2.15 Free higher education in Africa

Some nations in Africa have a tradition of free higher education, through public purses funding tuition and student living allowances, teaching, facilities and staff costs. Cases of African countries with FHE history are Kenya, Zambia, Mozambique, Nigeria, Burkina Faso and Egypt. Higher education has remained fee-free in many of these countries.

Mamdani (2016) opines that the university in the immediate postcolonial period was a development list university. Higher education was seen as a crucial factor in promoting African growth, and hence the levying of fees was perceived as an excessive barrier to the rapid progress of human power (Wangenge-Ouma, 2016). For several African states, the economic development of the continent was dependent to university education. In the light of massive skills shortages, FHE was deemed to be a valuable technique for accelerating the development of indigenous peoples' workforces.

In the postcolonial welfare era, many students could not benefit if the state did not fund the increasingly costly higher education system. As a result, FHE was deemed to ensure fair access rather than expediting skills instruction

(Wangenge-Ouma, 2016). The limited number of students was also a critical aspect in the offering of FHE by governments. For example, only 571 students who were enrolled at the then-University College in Nairobi in 1964, when political independence hit Kenya. This figure included postgraduate students and undergraduates of all races (Wangenge-Ouma, 2016).

In 1962, there were 210 students in the Federal University of Cameroon, while there were 130 students in Rwanda (Makalu, 2014). With the vast support for higher education locally and internationally, opportunities to support the FHE framework were made accessible. Apart from the reasons mentioned above, Hughes (2015) argues that the FHE strategy was part of many compensatory legitimisation techniques used by particularly vulnerable developed countries. The FHE strategy is strongly evident and populist, as is the situation for other compensatory legitimisation strategies. It fosters the impression that the state gives everything to citizens (Hughes, 2015). This indicates that, considering the incredibly regressive existence of the programmes, free or heavily funded higher education was perceived as a sign of the government apparent dedication to access to higher education for its citizens. The idea of compensatory legitimacy presumably explains why many African countries retained a free higher education programme amid increasingly significant financial demands.

2.16 Quality or access?

The truth is that financing in free-tuition countries has also not met educational standards or the needs of universities. This also refers to countries with low and controlled tuition fees (Rensburg, 2016). There are two choices open to policymakers in these situations. The first way to keep institutions going is to keep their budgets relatively minimal. This means that universities like those in Germany and Argentina will be underfunded (Sanders & Claire, 2018). In Germany, persistent underfunding, long-term and high drop-off rates are also correlated with the free tuition scheme. Academic employees are underpaid in Argentina and hold primarily part-time positions, and there is an extremely high dropout rate among students (Enders, 2016).

In these situations, the standard of public higher education, in particular the quality of teaching, is compromised because of the way in which free higher education programmes are implemented.

The second choice for policymakers trying to retain affordable higher education is to regulate the scale of the public sector. The only exception known to this author is Chile's free-tuition laws which apply only to government institutions (Makulu, 2017). By restricting the size of the universities or the size of the sites it subsidises in such universities, states have the ability to regulate their higher education costs (Pearson, 2016).

The government of Brazil opted for the second path, with a limited, extremely selective public sector, whereas countries with dual-track education systems such as Russia opted for the first choice (Kritsonis & Alicia, 2015). The key problem with the size constraint is no longer content but entry, with mostly merit-based constraints, thereby benefiting students of higher socio-economic backgrounds (Schuetze, 2014). Other alternative solutions involve increasing non-tuition payments to pump more funds into the budget. However, in most cases, with the exception of perhaps Ireland, the rate of these fees is very small, thereby offering little relief to the budgets of the organizations (Institute of Race Relations, 2016).

2.17 Policy and funding choices available for higher education

It is clear that a much higher percentage of government and private sector support should be geared towards quality pre-school education for disadvantaged children (Omar, 2016). This involves moving the allocation of financing from where the noise is and where it is necessary (Jansen, 2015). Arguably, immense political pressure has driven the state down the path of what is known as free higher education (Fourie, 2018). Yet the school-to-university stream of students will remain narrow until there is greater involvement in quality pre-school and high school enrolment (News24Wire, 2015).

A fee-free scheme to fund students from households receiving less than R350 000 per year will reduce the financial cost of studies for this group. The concern, as suggested, is whether this support is sufficient for the disadvantaged students,

considering their comprehensive requirements, and for whom the university is used as a welfare net that contributes to their overall needs, include travel, learning resources, accommodation and food (Greenaway & Haynes, 2017). Worse, without an effective way to administer state-funded loans and grants, ensuring that these funds return to the fiscus to support subsequent generations of students, the fee-free policy would inevitably collapse under its own weight (Omar, 2016).

At the end of the day, the proposal succeeds or fails on the basis of a negotiated compromise between the state and angry students over what is sustainable and what is not. The collapse of the academic project at the base of the university level will persist owing to the absence of political will, financial resources and managerial capability to turn these institutions around (Makhanya, 2015). Severe uncertainty would remain with unforeseeable teaching calendars. Degrees will continue to have no market credibility, and others might also risk their accreditation. Due to the size of the need, the financing required will never be adequate (Mamdani, 2016). And main management and teaching staff will be coming and going. The repetitive and interrupted tasks of governance, management, teaching and graduation will not change (Ndaliso, 2017).

What is not as obvious is the future of the top universities. Many have had their capital savings eroded away as a result of lengthy stretches of instability in state finance (Rensburg, 2016). Some have also lost donations from among their alumni due to harsh criticisms about how the 2015/16 student crisis has been handled. Respected academics, as well as students from good universities, have transferred to universities that are considered to be more secure, or have even relocated overseas (Bruce & Lorraine, 2016).

2.18 Challenges for sustainability of universities in other countries

Approximately 75 percent of the revenue of European higher education comes from public funds (EUA, 2016). As states struggle to balance their budget deficits with austerity policies, many have reduced their university expenditure. The EUA Public Funding Observatory has identified budget reductions in several European countries (EUA, 2015). It has been observed that systems have been influenced significantly across Europe, and no national higher education structure has

remained entirely unchanged. For HE programmes that have undergone no, or very limited, budget cuts in public funding, a variety of other strains and obstacles have emerged, such as rising student enrolment, increasing use of co-funding by public authorities, and challenges in securing additional revenue streams (EUA, 2015).

A majority of other countries, primarily in the South and East of Europe, some of which already have a significantly lower level of public spending (as a percentage of GDP) in higher education, have made large or severe cuts in higher education budgets since 2008 (Nongxa & Carelse, 2014). The significant level of public financing in the budgets of most European universities ensures that any cut is likely to have a serious effect on their financial sustainability (Nongxa & Carelse, 2014). Methods of public funding are subjected to reform. Public funding for universities is witnessing improvements in the manner that universities collect these resources. While block grants are still the favoured method of basic funding in several countries, more and more strategic aspects are being implemented in the distribution of funding.

This is achieved by output-based requirements or performance-based elements in the funding system. A number of countries are now using excellence programmes to distribute portions of public funds. Progress in attracting support through additional, mainly efficient, sources is also one of the allocation metrics. These funding processes have an effect on strategic choices and on the amount of resources used to gain funds.

2.19 International perspective

UK institutions receive grants from a wide range of sources. About 55% of university funding came from public sector revenue in 2003-04 (Johnstone, 2019). In the same year, tuition (including university tuition for non-EU students and part-time and full-time students in the UK and the EU) accounted for nearly 24 percent of total university revenues; research funds and partnerships accounted for 16 percent; and endowment and investment revenues accounted for 2 percent (Higher Education Statistics Agency, 2016).

In Africa, state universities in different countries have also segmented their sources of income to some extent (Ouma, 2017). For example, public universities in Kenya, Uganda and Tanzania have attempted to compensate for decreased state financial assistance, primarily through the introduction of dual-track tuition fee schemes. State universities in these countries also accept applicants who are not eligible for government grants (Carrol, 2016). These supplementary students are charged full recovery fees. A majority of public universities in Kenya now raise more than 30% of their overall revenue from fees. More than 40% of Makerere University in Uganda's fees come from non-state sources (Carrol, 2016), mostly due to the dual-track strategy on tuition fees.

Higher education is a resource-intensive endeavour. It cannot operate successfully without a huge influx of resources on a sustainable and scaled-up basis (Bruce & Lorraine, 2016). Professor Bruce Johnstone, a leading U.S. researcher in higher education finance, pointed out that higher education costs appear to escalate dramatically above the comparable rate of growth in accessible revenues, particularly those revenues that are tax dependent. This relates well to the economic condition in South Africa and to the reality of financial strains on its higher education market. The new surge of strikes at South African universities has been motivated by students' demands for free higher education (Dickinson, 2015). The situation has strengthened the network of thus-far ineffective options put together by state and tertiary institutions (Dickinson, 2015).

2.20 Cost implications of fee-free education in Africa

2.20.1 The implications of inadequate funding on university performance in Nigeria

The underfunding crisis, that is a crucial concern affecting the African education institutions, had a negative effect on the success of universities (Booyesen, 2016). As a result of the economic stagnation of that region, the Nigerian state considers it progressively more challenging to provide adequate funds to universities, due to increasing student enrolment without corresponding increased taxation funds (Ouma, 2018). There is really no doubt that almost all workers and students are negatively affected by this.

Bamiro and Adedeji (2014) indicated that the level of teaching and study has declined significantly, due to a shortage of sufficient teaching and research resources, combined with an overpopulated and uncondusive learning environment. They observed that the Nigerian government invests just 0.1% on research, while federal universities spend fair of 1.3% of their total academic resources on research (Bamiro & Adedeji, 2017). This has consequences for progress, since research is a true catalyst for the economic growth of the country, and funding is a driving force for research (Bastedo, 2015).

Moreover, the consequences of insufficient financing are evidenced in the fact that institutional buildings in the respective universities are in a state of disrepair, that many infrastructure and research projects have been neglected, that labs and libraries are badly designed, that academic staff do not attend conferences on a regular basis and that the awarding of research grants and fellowships has been significantly diminished (Bastedo, 2015). While the National Education Policy accepts that sufficient funding is a prerequisite for the performance of any academic curriculum, Adeniyi (2008) observed that there is a general decline in the quality and competitiveness of universities due to a shortage of funding.

2.21 Universities suffer under free-tuition regimes

2.21.1 A zero-sum game

Higher education funding is a zero-sum game. Institutions require a lot of funds to run. Their budget comes from a delicate mix of government grants, tuition fees charged to students and their families, and third parties such as corporations and charitable organisations. As the states decrease or abolish tuition fees, they decrease or abolish a safe and secure means of finance for institutions.

Although states do not necessarily have adequate money to finance higher education, which contributes to freezes and historical reductions, this assures us that students will always be able to pay for their university education. Charities and corporations have made it more difficult for them to rely on daily revenue and substantial feedback. What is occurring in New Zealand is by no means the first such event in the history of open higher education. Once governments decide on a programme of fee-free university education, they become the primary payer for the costs of educating students. Even so, they also

determine how much tuition a student will have to pay by the budget that they are providing to institutions. At the same time, the number of students is growing in certain countries across the world, as is the cost of higher education. The implementation of free-tuition policies thus depends on the unrealistic assumption that states would be expected not only to finance university education costs, but also to raise these costs on a constant and reliable basis.

2.22 Kenya crisis

2.22.1 University cash crisis worsens as state cuts budgets

Kenya's struggling public universities have been told to tighten their belts once more, after being struck with a \$10 million funding reduction that would worsen their cash problems, with restructuring initiatives designed to avert a looming economic downturn. The Kenyan Parliament proposed cutting support for salaries, teaching materials and infrastructure as part of the government's bid to stem public spending. This is likely to deepen the financial crisis faced by state-funded institutions over the previous year which has seen employment losses, frozen posts and reductions in core programmes such as research (Gilbert, 2018).

Parliament cautioned that the reductions would place institutions in a difficult financial condition at a time when the universities were calling for higher levels of government support. The loss of funds from the university training programme may lead to the build-up of outstanding bills, the National Assembly Budget Committee said.

2.22.2 Budget request shortfall

For the 2018-19 fiscal year, the national treasury distributed US\$ 1.03 billion to higher learning institutions, up from US\$ 961 million in the previous year. However, this figure is US\$ 300 million lower than the money requested by the universities. Such shortfalls necessitate massive job losses and, once again, institutions will no longer be able to afford to recruit new staff. Kenya's Education Cabinet Secretary ordered universities to tighten their budgets and streamline their activities. She claimed that universities should fix the proportion of technical staff to support staff in universities, adding that the proportion of support staff was too large.

2.22.3 Kenya's universities declared insolvent

The crisis in public universities is projected to escalate, with some now running large budget deficits and others being insolvent. The 2016 audit of the University Education Commission found that they had at least US\$ 100 million in budget deficits due to weak financial management. In a February 2017 assessment of public universities, the country's auditor general listed 11 institutions as insolvent: The University of Nairobi, Masinde Muliro University of Science and Technology, Multimedia University of Kenya, Murang'a University of Technology, University of Embu, Pwani University, the University of Eldoret, Jomo Kenyatta University of Agriculture and Technology, Technical University of Kenya, Laikipia University and Machakos University College. Dan Ngugi, a part-time lecturer based at the university of Nairobi, said that staff were worried about the stability of many of these universities, given the current state of financial difficulties, exacerbated further by the budget cuts. It's likely that others would find it difficult to stay afloat in the present environment, and this might require a redesign of the market model.

2.22.4 Pros and cons of the dual-track system in Kenya

The experience of Kenya reveals some of the benefits and drawbacks of dual-track educational systems. Since freedom, Kenya (the same as Uganda and Tanzania) has subsidized all higher education costs for students, namely university fees, accommodation and food, provided that graduates work in the public sector for three years following graduation (Marcucci & Johnstone, 2016). However, in the early 1990s, an increasingly student enrolment coupled with a weakening economy and structural reform initiatives forced the age of free university education in Kenya to an end (Wangenge-Ouma, 2018).

Decreased public subsidies have driven universities to raise additional funds, in particular via the so-called Module II programs for privately-sponsored full-time students that pay for Module I programs in which the portion of government-sponsored students costs just 20 percent of university education (Marcucci & Johnstone, 2017; Wangenge-Ouma, 2018). Government-subsidized students would also benefit for a means-tested scholarship, which covers up to three-

quarters of the cost of higher education and living expenses for the year (and only for the poorest students) (Marcucci et al, 2018).

2.23 New Zealand crisis

2.23.1 The sustainability, or otherwise, of free-tuition systems

The New Zealand case teaches us that free higher education policies are destined to pose problems, almost as fast as they are introduced (Roger, 2018). The truth is that states do not have an unlimited pile of funds to finance higher education, and funding to substitute tuition fees would be minimal. In the near term, higher education institutions in newly free countries are expected to suffer from budget freezes as well as reductions. In the long term, they may have to pick between the consistency of their educational quality and open access. The ideal solution could be to put back tuition fees if there is a potential legislative solution.

The case in New Zealand is much more complicated. New Zealand's policy is being replaced by tuition fees, which is probably seen as the ideal option for higher education: funding income-contingent loans (Roger, 2018). In New Zealand, returning to income-contingent loans will be viewed as a backwards step, although in many countries it is seen as inevitable. Tough times lie ahead for New Zealand (Gilbert, 2018).

New Zealand universities struggling through free education schemes are underlining a lack of awareness by state governments about the public essence of higher education and the various advantages of access to quality higher education for national, regional and international sustained development. Arguments regarding zero-sum games, efficiency or availability and the inefficient essence of free education programmes could be true in terms of contemporary government perceptions (Gilbert, 2018). But national policymakers need to look beyond short-term financial restrictions, provided that investment in higher education offers long-term benefits not just to students, but to nations and society at large (Roger, 2018). In addition, higher education can be seen as part of the state's engagement and dedication to international sustainable growth (Roger, 2018).

2.24. Summary

This chapter summarised the impact of fee-free education from prior studies conducted on funding fee-free education. Prior studies conducted in various countries on how they struggled in funding universities were also examined in particular cases where universities were forced to re-introduce tuition fees so that they would be able operate without depending on government subsidies.

For instance, Nigeria and Kenya universities in the 1980's did provide free education but the enrolment rate at that time was very low the Kenyan government managed the funding without any complications but all that changed in 1990 the enrolment growth sky rocked and it had a big impact on teaching and overcrowding in lecture halls. Due to government failure in funding, universities were forced to re-introduced tuition fees. Free higher education in South Africa has been prematurely implemented with no strategies in place on how to tackle or over come any issues that may result from short funding by the government.

CHAPTER 3: METHODOLOGY

3.1 Introduction

The research methodology is explored in depth in this chapter, which reflects on the description of the design, approach, methods and techniques used to accomplish the research objectives.

Research methodology is a way of systematically addressing the issue of research (Kothari, 2019). Sandelowski (2018) states that in methodology there has to be some knowledge of the world, which includes theory, method or paradigm. This is the process in which data is collected, analysed, described and explained by the researcher (Maree, 2016). Thus, research methodology may be seen to be a single procedure, incorporating other methods that help to solve the problem. The research design is presented as a 'timetable' for the research in this chapter and explains the key strategies and processes used, notably:

- research methods;
- research design;
- population under study and sampling; and
- ethical considerations.

3.1.1 Research methods

The research methodology and research methods should be noted as distinct concepts. Analogically, a technique is an area or a chart, whereas a method refers to a number of traveller travels between two locations on the map (Bernard, 2017). A methodology refers to a process for conducting research within a specific paradigm. This requires a collection of principles which direct a researcher to select one type of method of research over another (Creswell, 2017). The research questions must be addressed when choosing the research method, since a variety of methods is often required (Maree & Van Westhuizen, 2017).

A research method includes a range of different data collection and analysis methods, resources and techniques. The research method is therefore an abstract, that is, separate from processes and paradigms (Taylor & Francis, 2017). Creswell (2018) claims that various approaches are available for research

methods and such approaches may be classified into three broad categories: quantitative, qualitative, mixed method.

Bell, Bryman, and Harley (2018) state that qualitative methods often provide rich reports that concentrate on interpretation of data obtained. Byrd and Robby (2020) maintain that the interpretive model "represents an environment in which the truth is thus built, dynamic and ever evolving: Qualitative approaches are commonly accepted by interpreters. Qualitative research is often regarded as 'interpretivism' (Bamberger *et al.*, 2018). It can be described as a method through which researchers analyse and construct an image through data collected from participants, to explain the issue. Qualitative researchers gather huge amounts of data using in-depth questions which are generally put to a smaller population of individuals or participants (Queirós, Daniel & Fernando, 2017).

The research questions are generic and not unique, because they try to clarify the perspectives of the participants on the issue under investigation (Ivankova, Creswell & Clark, 2019). A qualitative research method may examine specific cases in their temporal and spatial characteristics (Esser & Vliegthart, 2017). Mixed methods are another widely-used approach. This method involves the use of both quantitative and qualitative techniques, and does not relate to any particular observation by any of the methods (Gravetter & Forzano, 2018). Rahman (2017) notes that mixed methods may be characterised in the same manner, through which data is collected simultaneously or sequentially, as the gathering or processing of both quantitative and qualitative data.

3.1.2 Research design

Research objectives and research questions are the main elements of research design, as they offer valuable insights into the content that the researcher aims to analyse (Berry & Otley, 2017; Saunders, Lewis & Thornhill, 2016; Yin, 2017). There are three requirements for performing a case study supported research methods: experiment, survey, archival analysis and history (Yin, 2017). Firstly, the manner in which a research question is raised is in the context of why or how. The other two criteria are that there is no influence regarding human incidents being studied and that the study focuses on current activities. Thus, the case study should concern itself with a contemporary event rather than a historical one.

The research design will be chosen on the basis of the form of research questions that would be posed and whether the application of such approaches will bring weight to the analysis (Gray, 2016). Firstly, questionnaires will be used for this research, together with interviews. This mixed method is meant to provide the researcher with much more clarity on other elements of the research sub-questions.

3.1.3 Selecting the research design

Yin (2017) acknowledges that the study design must be capable of allowing the author to answer to the initial problem upon which research is based. Throughout the whole process, the study design should promote or discuss the answers to the following question: "How has the implementation of free education affected universities in terms of budget allocation?"

In this research, a sequential explanatory approach was used, which describes the compilation and review of quantitative data go together with qualitative data in two successive phases of a single investigation. This approach is chosen because it offers the researcher the ability to utilise interviews to determine some of the alternative revenue streams that institutions can utilise, as discovered in the quantitative part of this research. According to Creswell (2018), this approach is widely employed when unpredictable outcomes are produced by means of a quantitative method. This approach is simple and makes it easy to identify and comment on findings.

3.1.4 Questionnaire design

According to Brace (2018), the questionnaire is a well-established research tool used to gather meaningful data on social characteristics, new and old behaviour, attitudes, beliefs and justifications for the actions of the participants. Welman, Kruger and Mitchell (2019) classify the questionnaire as a set of methodically organized questions used by the researcher to obtain the necessary data from the participants. Wilson (2016) also defines the questionnaire as the primary tool in which participants are asked to respond to similar questions in a predetermined order. Quantitative research, including the use of survey questionnaire, intends to enhance understanding by selecting features and evaluating textual research questions and concepts that reflect the

epistemological attitudes of positivism and post-positiveness (Johnson & Onwuegbuzie, 2017).

For a number of reasons, the questionnaire has been the most frequently used approach to acquiring info from participants. McMillan and Schumacher (2017) argue that the questionnaire tends to make it probable to measure knowledge and information, values, preferences, attitudes and beliefs. Myers *et al.* (2016) claim that it is fairly easy to analyse the data collected using questionnaires, especially if your questions take the form of Likert scale interrogatives, rather than open-ended questions. The questions in the questionnaire are constructed in such a way as to answer one problem for each question. In order to reduce bias, the researcher has ensured that all possible responses are provided as alternatives.

A four-point Likert scale was used to achieve this, and the options are: strongly agree, agree, disagree and strongly disagree. This type of question enables the participants to evaluate their level of agreement or disagreement with the view provided (Dunn, 2017). According to Colosi (2018), the four-point Likert scale is an effective method. The four-point Likert scale also enables researchers to swiftly collect responses and evaluate the percentage of respondents who agree or disagree with a statement.

The Likert-type scale is often used in quantitative data collection that is (1) challenging to quantify or (2) presents a delicate topic that the respondent is unable to respond to or will react poorly if questioned explicitly. Certain open-ended response types avoid mean inferences from midpoint-based assumptions. However, closed-end categorical answers in between appear to be conditional but not linear.

The questionnaire is among the best data collection instruments for this research because it excludes the biases that could arise from the personality characteristics of the researcher (Saunders *et al.*, 2018; Cooper & Schindler, 2014).

In research ethics, anonymity and confidentiality improve the likelihood of a truthful result in a body of research (Cohen *et al.*, 2017). The questionnaire ensures privacy and secrecy, since the respondents were not required to reveal who they are. The questionnaire was created for this study, as it is frequently used to collect vital population information, which in this study included all three selected universities and drew on employees in the finance department, lecturers and senior management (Zikmund & Babin, 2018).

3.1.5 Semi-structured interviews

The usage of an in-depth qualitative interview is widely regarded as the correct method for research analysis, since in-depth questions cannot be addressed briefly (Agarwal, Vinita, 2020). It enables the use of interpersonal skills to promote collaboration among participants and to produce further knowledge (Van den Berg & Struwig, 2017). The response rate of the interview is greater than that of the questionnaire, and thus provides a more representative sample (David, 2017). It is assumed that the researcher will ask for explanations or further clarification of the responses provided in order to achieve a better understanding of the problems.

During the interview process, the researcher drafted a range of questions with which to interview participants. Those questions were asked in such a way that they satisfied the requirements of the interview. This approach of interviewing is ideal because the interviewer can vary from the set questions (McGrath, Palmgren & Liljedahl, 2019). In other words, the interviewer may also ask more relevant questions or request elaboration. De Vos *et al.* (2016) states that semi-structured interviews can often run for a lengthy span of time and can develop intense and exciting, depending on the subject matter. Rather than guiding, questions were left positive for increasing performance (Doyle, 2018). The questions also have to reflect on research questions, thereby ensuring that the information needed for the study is available from participants (De Vos, 2016). The interview procedure that was used at the premises of the institutions was face-to-face.

3.1.6 Transcribing recorded interviews

After the interviews, the recorded information was typed in the computer in order to be presented as the response by the interviewees from the questions that were asked by the researcher. Terre, Durrheim and Painter (2017) state that “it is easier to move back and forth to various sections of the interview if it is on paper than if it is on audio cassettes, thus the need to transcribe the data”. Once the interviews are transcribed, it is easier to update and organise the data and to check for keywords at a later point. It is therefore important to transcribe in full, rather than attempt to determine which data is significant and which is not (Azevedo *et al.*, 2017). The researcher has read and listened to the recorded data in order to test the consistency, as indicated in the literature review in chapter two.

3.1.7 Procedure for data collection

Questionnaires and interviews were used to gather data: 50 questionnaires were distributed and 46 were obtained from individuals who accepted and showed interest in participating in this research. Questionnaires have been filled individually and anonymously. Each respondent took about 15-30 minutes to complete their questionnaires. Sufficient time was given to ensure that the participants completed their questionnaires. Three of the 46 respondents who chose to participate in this study were also interviewed on various days, times and the interview was recorded. It took 2-3 hours a week to complete these interviews. As a result, the interview process was completed within one month. The questionnaire was scattered to the participants and collected by the researcher. The researcher conducted the interviews.

3.1.8 Measures taken to ensure validity and reliability

3.1.8.1 Research instrument reliability

In order to improve the validity and reliability of the questionnaire, three academics with extensive expertise in the design of the questionnaire have been examined. Academics were requested to include their interpretation of each question and to criticize the questionnaire in order to find any possible weaknesses. The weaknesses were a timely factor that could improve its validity and reliability.

The reliability of the questionnaire was also strengthened through a pilot test. During the pilot study, the questionnaire was reviewed and retested in three universities which did not form part of the final sample of the research in a two-week timeframe to assess if it yields reliable results. Any inconsistencies have been identified to ensure that they have achieved consistent outcomes, an element that should be addressed to increase its reliability.

3.1.8.2 Research instrument validity

It must measure without error and represent the overall idea until a research instrument can be considered to be accurate. The exact sense of the concept under discussion should also be explained. The findings would therefore be truthful, ideal, complete and lead to a successful end (Leedy & Ormond, 2005).

Cooper and Schindler (2014), says that there are three major forms of authenticity can be differentiated. This form of validity covers a variety of classifications, but this research focuses only on two, which are content and construct validity.

Two forms of validity have been assessed in this research, namely internal validity and external validity.

1.1.8.3 Internal validity

- 1. Content validity-** was mainly used for this research by constructing the research into chapters and sections to allow both the questionnaire and the semi-structured interview to stream and link details and organized questions to elicit the correct responses from the participants.

A team of highly skilled researchers were consulted in order to attain content validity in this research and given guidance on the survey instrument before it was used. Feedback was provided and changes were made accordingly in order to finally submit a questionnaire that was ultimately used in the survey.

In the case of this research, the validity of the content was referred to as questioning the correct questions in the questionnaire. Content

validity demands for all elements that describe a true definition to be added by a research instrument.

- 2. Construct validity-** is a means of quantifying the uniformity of the research instrument and of incorporating the consistency of the definition under investigation (Brynard & Hanekom, 2006). Construct validity essentially involves applying to the survey method the basics of the research purpose. In theory, construct validity means applying the elements of the objective of the study to the research instruments. The researcher should address questions such as: is the structured questionnaire set to test what it is expected to measure to obtain construct validity? In order to address the purposes of the research, are the questions in the research instrument accurate?

For this reason, the University has provided the Researcher's Ethical Credential. The representatives of the institutions under study offers the participants the permission to explore the problems facing the institutions, as covered by the questionnaire and the interview guide.

1.1.8.4 External validity

External validity represents the degree to which a larger population or other target groups are covered by inferences from the sample of a given study. In particular, obtaining external validity demands the use of a random sampling technique to ensure that the sample is representative of the population (Brynard & Hanekom, 2006). While this approach was not used due to the absence of a full list of universities functioning in the Cape Metropole, given the fact that the intended sample size of three universities had been identified in order to boost the representativeness of the sample, it was felt that external validity had increased, even if only to certain point.

3.1.9 Data analysis

One of the challenges with mixed methods is how to view the results from qualitative and quantitative research (Washington, Karlaftis, Mannering & Anastasopoulos, 2020). In this process, because data was collected in phases, the research is easier to see and pursue than in a converging design (Creswell, 2019). For this study, universities that are financially dependent in government

for financing will be identified by qualitative data and participants were drawn from them to participate in the quantitative data collection process.

3.1.10 Selection of the population

For this research, the target population are supply chain managers, financial accountant managers, lecturers and senior management in the following universities: Cape Peninsula University of Technology (CPUT), University of the Western Cape (UWC) and the University of Cape Town (UCT). These three universities have been chosen because they are located within the province of the Western Cape and they are dependent on the government for funding, so it was easy for the researcher to visit the support staff who are required to participate and as well as to distribute the questionnaires and conduct interviews.

3.1.11 Sampling

A sample is defined as a subset of a population assumed to be representative of the population (Du Plooy-Cilliers *et al.*, 2018). In order to administer 50 questionnaires and conduct three interviews, the purposeful sampling method was used, three interviews were conducted and 46 questionnaires obtained from supply chain managers, financial accounting managers, lecturers and executive management of the three universities listed (CPUT, UWC & UCT).

The option of a purposive sampling system was deemed appropriate, since it offers greater validity than a random sampling process when used effectively. In real-world environments, not everybody is willing to participate to a study simply because it offers clear and comprehensive results. In addition, the generalisation of the findings is restricted to the population being studied for purposive sampling (Tongco & Dolores, 2018; Alexiades, 2019). In addition, the approach was by far the most efficient, since the target sample participants were close and easily accessible for research purposes (Kruger & Welman, 2017).

Furthermore, the researcher was clear on who to include in the sample and remove from it (Easterby-Smith *et al.*, 2018). Respondents were chosen mainly as a result of the key role that they played in the collection of data.

3.1.12 Sampling method

It is imperative that data collection be selected and acquired with sound judgment, especially because there can be no quantity of analysis that can compensate for incorrectly collected data (Bernard *et al.*, 2017).

This approach helped the researcher to develop a better view of the cost implications of fee-free education on the financial management of selected universities in the Western Cape. Since the topic is sensitive, this sampling technique is appropriate.

The key goal is to obtain a specific understanding of qualitative approaches, whereas quantitative methods are meant to acquire a broader understanding (Patton, 2018).

3.1.13 Sample size

Hoinville and Jowell (2018) maintain that the selection of the sample size is primarily dependent on observation instead of calculations. The sample size does not generally indicate the number of answers received or the number of questionnaires provided (this amount is often expanded to make up for no-response). Possibly the most efficient and time-effective approach to ensure the minimum samples are met is to exceed the target sample size in the first survey distribution by up to 50% (Bartlett *et al.*, 2018).

The intended population was made up of Western Cape universities. A purposeful sampling strategy was used to administer 50 questionnaires to personnel of the finance department, senior management and university lecturers, two universities received 17 questionnaires and the other one received 16 questionnaires.

By choosing finance department employees, senior management and lecturers only in these selected universities, the researcher will be able to narrow down the population. Unlike respondents from various sectors, the finance, senior management and lecturers in the selected universities are likely to possess the same critical features. As finance, senior management and lecturers are qualified to take part in this study, sample size is not as broad as a survey from a heterogeneous population or from a different sector would require. Maree and

Pietersen (2017) suggest that time and research costs can also play a role in deciding on the sample size, though these aspects were not considered by this researcher.

3.1.14 Response rate

In order to increase the response rate, the researcher must aim to make the questionnaire simple and straightforward (Hoinville & Jowel, 2018). In order to make arrangements for distribution of questionnaires and conducting interviews, the chosen university employees were contacted via telephone. In order to optimise the response, the questionnaires were hand-delivered to the selected universities. The qualitative part of the data collection was conducted based on the time, venue and date agreed upon by the participant.

In most situations, the researcher was required to drop the questionnaire without consulting the participants face to face, an opportunity was lost to communicate with the participants in order to illustrate or clarify vague words and definitions that may have compromised the answer rate, but the researcher made an attempts to meet the participants in person by all means in order to mitigate these challenges.

Taking into consideration the sensitivity of the information collected in this analysis, the unwillingness of those participants to cooperate in the study can be appreciated (De Vos et al., 2018). The researcher reassured the participants of the study's anonymity while administering the questionnaire to them in order to defeat this restriction.

3.1.15 Data analysis

In accordance with the existing literature, the knowledge obtained by the above methods was addressed and discussed. The software program Statistical Package for the Social Sciences (SPSS version 25) was used to evaluate every piece of information collected and, with the relevant research questions in mind, to analyse the data, compile the tables and diagrams for it, observe the relations of the variables and carry out statistically significant tests (Appendix A).

This study employed a mixed design method (quantitative and qualitative) to give rich data and strength to the study's results. This study was both descriptive and

interpretative in its data analysis approach. The analysis of the questionnaire responses was based on descriptive statistics. Temple and Young (2017) claim that analysing of qualitative data is simply the separation of words, sentences, and paragraphs in the research project to make sense of the details, to interpret them, and to theorise them. William (2017) advises that the analysis must be detailed, reliable, restrained, purposefully preserved and, above all, effective in the organization, reduction and explanation of the information.

The qualitative research methodology as applied in this research included a scientific approach that analysed the findings of the sample in empirical analyses. Quantitative information from the Likert scale statements has been processed, with findings accurately statistically evaluated for both the descriptive and the inferential measures, utilising Statistical Package for the Social Science (SPSS).

3.1.16 Summary

The researcher has identified the method of study to be utilised and therefore must endorse the research question. This chapter explores the research approach to attain the aims of research. Along with the research questions, research methods are discussed. The study stresses the way in which empirical research is carried out and how the survey and interviews are handled. It covers partially the quantitative portion and the instances for the qualitative part of the data processing dimensions of the population.

The next chapter discusses the data collection and presentation of the results.

CHAPTER 4: PRESENTATION AND ANALYSIS OF THE RESULTS

4. Introduction

This chapter provides an analysis of the distributed data obtained from the questionnaire and the interviews that were performed and recorded. This chapter also presents the interpretation of the outcomes of cost implications of fee-free education on the financial management of selected universities in Western Cape. Chapter 5 provides a detailed discussion of Chapter 4 findings with regard to both qualitative and quantitative results. Lastly, this chapter demonstrates the questionnaire response rate, interviews on cost implications of fee-free education.

4.1 Response rate of questionnaire survey

The data was obtained by means of questionnaires from a total of fifty (50) respondents. The remaining four questionnaires were not obtained from the participants due to non-completion as a result of the March 2020 Coronavirus lockdown. The majority (46 of the 50) of the distributed questionnaires were filled in and obtained from the participants.

The following measures were taken to improve the response rate:

- The cover letter revealed a shared interest to part take in the survey participants; and;
- The length of the questionnaire was kept to a minimum.

4.2 General information

4.2.1 Gender of the participants

Of the participant population, fifty two percent were males and forty eight percent were females.

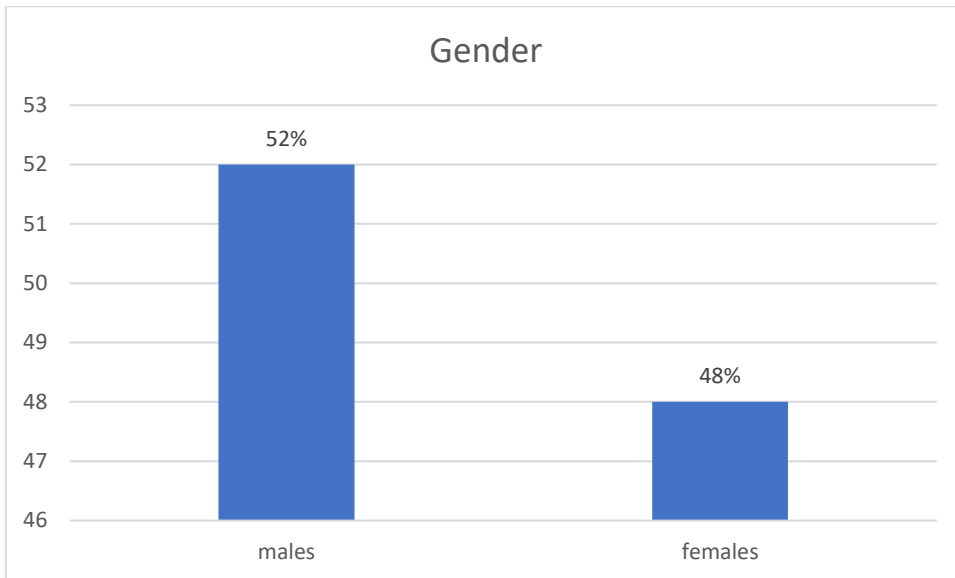


Figure 4.1

(Source: Fieldwork)

4.2.2 Job profile of respondents

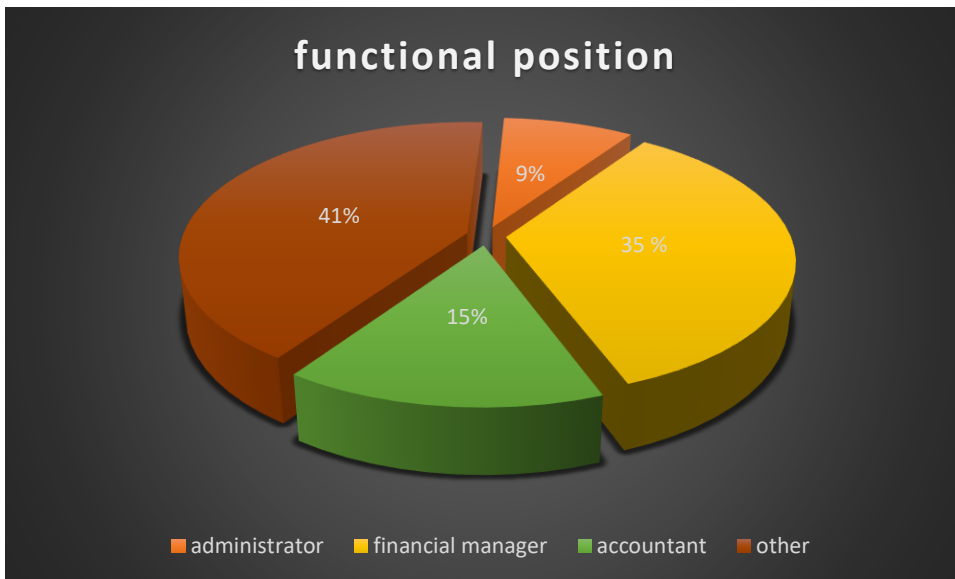


Figure 4.2

(Source: Fieldwork)

The survey sample consisted of the finance department, senior management and lecturers of the universities under study, which included administrators, accountants, financial managers and other staff in the finance department, in addition to teaching staff. The following is the percentage of respondents and their current position: admin 9%, accountants 15%; financial management 35%; other positions, including lecturers and heads of departments, 41%.

4.2.3 Length of service within the institution

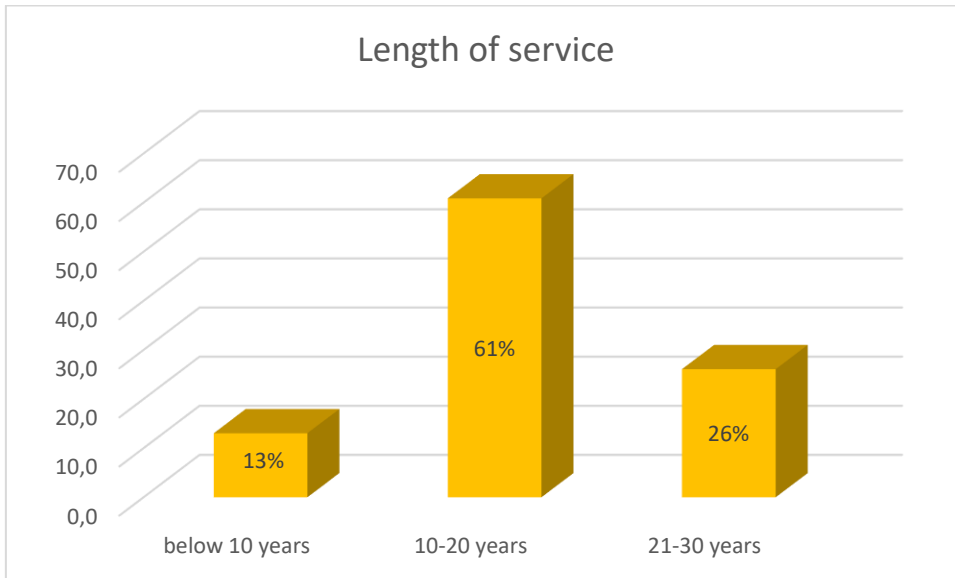


Figure 4.3

(Source: Fieldwork)

The above figure shows the length of service of the respondents: 61% of the respondents had been serving in the institution for 10-20 years, 26% had been serving for 21-30 years and 13% had been working in the institution for less than 10 years.

4.3 Questionnaire analysis

4.3.1

How the introduction of fee-free education has affected university in terms of budgetary allocation

Participants were requested to specify/show their level of agreement on university budget allocation using Likert scale of 1 to 4, where 1 = strongly agree; 2 = agree; 3 = disagree; 4 = strongly disagree. This question was designed to measure agreement on university budget allocations due to the impact of fee-free education on internal operational.

We need to know the composition of participants in the questionnaire survey. This must be included

4.3.2. Stringent cost cutting measures (overall university spending)

Table 4.1: Perceived need for stringent cost-cutting measures

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	20	44	44	44
	agree	24	52	52	96
	disagree	2	4	4	100
	Total	46	100	100	

(Source: Fieldwork)

The table above shows that only twenty people (44%) said stringent cost cutting measures had to be put in place in order to control costs, while 24 participants (52%) agreed that it was necessary to enact measures to control cost, whereas 2 participants (4%) disagreed with cost-cutting measures being put in place.

4.3.3 Scrutinise budgets for other opportunities to minimise fixed costs

Table 4.2: Perceived need to scrutinise budgets to reduce fixed costs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	10	22	22	22
	agree	31	67	67	89
	disagree	5	11	11	100
	Total	46	100	100	

(Source: Fieldwork)

10 participants (22%) strongly agree and 31 participants (67%) agree that universities have to scrutinise budgets for other opportunities to reduce variable costs. However, 5 participants (11%) disagreed with the scrutinization of budgets.

The findings clearly show that for universities to stay afloat, they need to scrutinise their budget for other opportunities and try to minimise their fixed costs. The findings show that universities are scrutinising their budgets to minimise fixed costs such as premium payments for your malpractice insurance, subscription software costs, or lease payments.

4.3.4 Scrutinise budgets for other opportunities to reduce variable costs

Table 4.1: Perceived need to scrutinise budgets for opportunities to reduce variable costs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	15	33	33	33
	agree	29	63	63	96
	disagree	2	4	4	100
	Total	46	100	100	

(Source: Fieldwork)

The table above shows that 15 participants strongly agreed and 29 agreed with the statement that the university had to reduce variables costs, while 2 respondents disagreed. The variable includes mail and courier service, travel, office supplies, and utilities.

4.3.5 Cutting down on operational expenditure

Table 4.2: Perceived need to reduce operational expenditure in universities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	20	43	43	43
	agree	26	57	57	100
	Total	46	100	100	

(Source: Fieldwork)

All respondents who participated in this study agreed or strongly agreed that there was a need to cut down on operational expenditure. The participants' feedback clearly shows that some universities might find it hard to stay afloat with current

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	9	20	20	20
	agree	36	78	78	98
	disagree	1	2	2	100
	Total	46	100	100	

(Source: Fieldwork)

20% of the participants in the study sample strongly agree with the statement that universities need to cut down on Capex.

However, some of the participants (78%) agree with the statement that universities need to cut down on capital expenditure. The remaining 2% of the respondents disagreed. The participants' feedback clearly shows that some universities might find it hard to stay afloat as currently constituted, and this might call for a rethink of the business model.

levels of operational expenditure, and this might call for a rethink of the business model of universities.

4.3.6 Cutting down on capital expenditure (Capex)

Table 4.5: Perceived likelihood of the need to reduce Capex

4.3.7 Cutting down on student support expenditure

Table 4.6: Perceived need for the universities to reduce student support expenditure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	17	37	37	37
	agree	20	44	44	80

disagree	8	17	17	98
strongly disagree	1	2	2	100
Total	46	100	100	

(Source: Fieldwork)

The table above shows that 17 of the 46 study respondents strongly agreed that student support expenditure had to be reduced in universities, while 20 of the respondents agree with the statement, showing agreement. Eight of the participants disagreed and one participant strongly disagreed with the statement above.

The table above shows that fee-free higher education had an impact on student financial support by universities. One of the budget cuts made by universities involved cutting down on student support expenditure.

4.4 Strategies that are in place to mitigate the challenges emanating from fee-free education

Respondents were asked to indicate their agreement concerning the strategies that are in place, using a 4-point Likert Scale where 1=strongly agree, 2=agree, 3=disagree, 4=strongly disagree.

4.4.1 Insufficient funds to recruit tutors for teaching and learning support

Table 4.7: Perceptions regarding whether insufficient funds exist for tutor recruitment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	16	35	35	35
Valid agree	30	65	65	100
Total	46	100	100	

(Source: Fieldwork)

According to the information above, 35% of the respondents strongly agreed, and 65% agreed with the statement that the universities have insufficient funds to recruit tutors for teaching and learning support.

The findings clearly show universities are operating on a strict budget where they have to completely cut funding some of their very important opportunities such as tutoring. It is evident enough based on the literature above that there is already a doubt that the fee-free higher education in South Africa is not effective, and support is insufficient for universities to function directly in the long run.

4.4.2 Faculties may negatively be affected if the university cuts certain allocated budget items

Table 4.8: Perceptions regarding whether faculties would be negatively affected if cuts to budget items occur

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	11	24	24	24
	agree	34	74	74	98
	disagree	1	2	2	100
	Total	46	100	100	

(Source: Fieldwork)

98% of participants agreed or strongly agreed to the statement above. The remaining 2% disagreed.

This clearly demonstrates significant concern that fee-free higher education will lead to budget cuts that would negatively impact on faculties. This might cause poor service delivery by staff to students, and that might cause the universities to fail to live up to their mission and vision.

4.4.3 Reducing funding for learning materials

Table 4.9 Reducing funding for learning materials

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	9	20	20	20
	agree	33	72	72	91
	disagree	3	7	7	98
	strongly disagree	1	2	2	100
	Total	46	100	100	

(Source: Fieldwork)

Referring to the above information, 9 of the 46 participants strongly agreed with the statement that the university had reduced funding for learning materials; 33 of them agreed, while 3 disagreed. One of the participants strongly disagreed.

Respondents were asked about strategies that were in place to mitigate challenges emanating from fee-free education: 42 out of 46 respondents are in a belief of reducing on funding learning materials.

4.4.4 Cutting of university staff training and development budget

Table 4.10 Cutting budgets for staff training and development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	9	20	20	20
	agree	33	72	72	91
	disagree	3	7	7	98
	strongly disagree	1	2	2	100

Total	46	100	100	
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(Source: Fieldwork)

20% and 72% of participants respectively strongly agreed and agreed with the statement above, while 9% of the respondents disagreed and strongly disagreed with the strategy of cutting university staff training and development budgets.

The findings show that universities already operate at the edge of their capacity and can therefore not expand without reliable capital investments. The cutting of university staff training and development budgets is a short-term strategy indicating desperation simply to stay afloat, regardless of the long-term negative impacts that such a policy will have.

4.4.5 Reduction of non-essential capital expenditure, such as requests for office make-overs, catering costs, travel costs etc.

Table 4.11 Reduction of non-essential capex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	30	65	65	65
	agree	16	35	35	100
	Total	46	100	100	

(Source: Fieldwork)

A majority (65% and 35%) of respondents agreed and strongly agreed to the statement above, that there are strategies in places for reducing non-essential capital expenditure. The response from the participants shows that universities have a good appetite for reducing non-essential capital expenditure.

4.4.6 Pressure on institutions to accept more qualified students, increasing the required proportion of student lecturers, leading to possible overpopulation in lecture halls

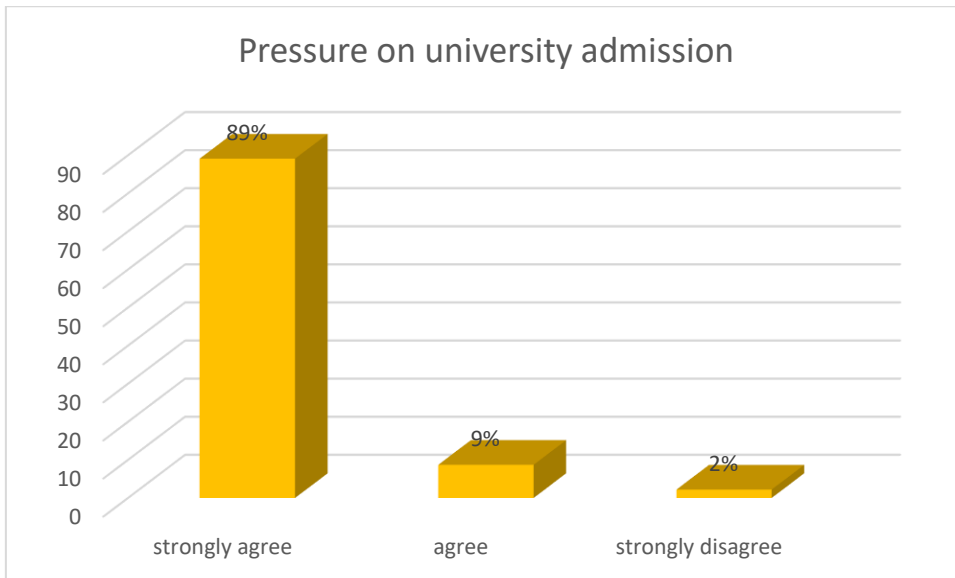


Figure 4.1

(Source: Fieldwork)

Figure 4.14 Shows that 89% of respondents strongly agree that universities are under pressure to accept more eligible students, beyond the required student teacher ratio, leading to possible overpopulation. Two percent of respondents disagreed.

The results indicate that the universities would be put under immense pressure without a sufficient feasibility and financing strategy. Eighty nine percent of the respondents strongly agree that universities are under pressure to admit more students, resulting in overcrowding. It is clear from the findings that the implementation of free education in South Africa without appropriate sustainability and funding strategies clearly brings institutions under tremendous pressure to enrol more students.

4.4.7 The cost of repair of buildings damaged by students during FeesMustFall has forced the university to abandon them.

Table 4.12 Cost of repairing damaged buildings has led to their abandonment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	12	26	26	26

agree	14	30	30	57
disagree	11	24	24	80
strongly disagree	9	20	20	100
Total	46	100	100	

(Source: Fieldwork)

The table above shows 12 respondents out of 46 strongly agreed and 14 respondents agreed with the above statement, while 11 respondents disagreed and 9 strongly disagreed.

Results demonstrate that insufficient funding is clearly visible in the sense that the built infrastructure at the respective universities are in a state of disrepair, various building and research programs have been ignored, labs and libraries are badly designed.



Figure 4.2

(Source: Fieldwork)

Figure 4.2 shows one of the CPUT buildings torched by students during a FeesMustFall protest, five years after the incident. It has been abandoned by the university.



Figure 4.3

(Source: Ashleigh Furlon)

The UWC ResLife coffee shop was torched in November 2015 and again in 2016.

4.4.8 The university has cut funding for academics to attend conferences

Table 4.13 Cutting of funding for attendance of conferences

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	20	44	44	44
	agree	21	46	46	89
	disagree	5	11	11	100
	Total	46	100	100	

(Source: Fieldwork)

The table above shows that 41 of the 46 participants either strongly agreed or agreed with cost-cutting strategies for attending academic conferences, but 5 of the respondents disagreed.

One of the strategies that are in place to reduce the difficulties of fee-free education is reducing the expenses of participating in academic conferences, and this is not a positive strategy at all. The implications of inadequate support are

apparent in the sense that university employees do not participate in conferences as they supposed to, and the distribution of study grants and fellowships is substantially decreased. The results show clearly that universities function on a strict budget, which requires them to cut even the biggest budgets. For obvious reasons, this will have a detrimental effect in the long run.

4.5 Alternative revenue sources will be (or are being) used by universities to cover up shortage of funding fee-free education

Respondents were asked to indicate their agreement concerning the alternative revenue sources using a 4-point Likert Scale where 1=strongly agree, 2=agree, 3=disagree, 4=strongly disagree.

4.5.1 Resources are sufficient and flexible enough to support the strategic objectives of the university

Table 4.14 Sufficiency and flexibility of resources to support university objectives

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	4	9	9	9
	agree	3	7	7	15
	disagree	18	39	39	54
	strongly disagree	21	46	46	100
	Total	46	100	100	

(Source: Fieldwork)

According to the above, 18 respondents disagreed and 21 strongly disagreed with the statement that adequate and versatile resources are available. This shows that resources are neither adequate nor versatile enough to support universities' strategic goals. Four respondents, however, are very much in agreement, and three agree with the statement.

It is very clear that resources are scarce and not sufficiently flexible to meet universities' strategic goals. This brings us to the question of whether free higher

education really is sustainable within the scope of South Africa. The table above clearly shows the government has not undertaken a feasibility study to determine the long-term viability of the implementation of free higher education.

4.5.2 Operating results indicate the university is functioning with available resources

Table 4.15 Operating results indicate the university is functioning with available resources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	7	15	15	15
	agree	3	7	7	22
	disagree	23	50	50	72
	strongly disagree	13	28	28	100
	Total	46	100	100	

(Source: Fieldwork)

A total of 23 participants disagreed that the operating results indicate that universities live within the constraints imposed by the resources available, although 7 participants strongly agreed and 3 agreed.

The results indicate that universities operate for the sake of operating otherwise the findings obtained indicates that universities do not function within the resources available. South African universities operate under strict budgets and the premature announcement of free higher education can escalate the problem of inadequate capital funding even. Indeed, these findings indicate that universities function under immense pressure due to what is required of them, even though the resources are very limited.

4.5.3 Adequate resources and access to sufficient funds to meet current and future operating and capital requirements

Table 4.16 Resources and funding access sufficient to meet current and future requirements

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	6	13	13	13
	agree	4	9	9	22
	disagree	24	52	52	74
	strongly disagree	12	26	26	100
	Total	46	100	100	

(Source: Fieldwork)

As illustrated in the table above, 24 respondents and 12 respondents strongly disagreed and disagreed respectively that resources are not sufficient to fulfil current and potential requirements for operating. Higher education is a resource-intensive industry, and it cannot operate efficiently without a continuous and intensified capital infusion. During the free university era, England experienced difficulties, in which government support failed to sustain, and institutional capital decreased by more than 39% per full-time student in the decade after 1986.

4.5.4 The university has the largest endowment funds and a substantial part of it is contributed by the alumni

Table 4.17 The university have the largest endowment funds and a substantial part of it is contributed by the alumni

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	4	9	9	9
	agree	6	13	13	22
	disagree	13	28	28	50
	strongly disagree	22	48	48	98

Total	46	100	100
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(Source: Fieldwork)

The findings reveal that these three selected institutions do not have enough donor funds: 48% of respondents strongly disagreed with the above assertion and 28% of respondents disagreed, claiming that the alternative income resources are inadequate or insufficient to offset all shortcomings that will arise from free education. The results show that the fee-free higher education is unlikely to be fully effective in South Africa. Universities will not have enough funding to operate directly in the long run.

4.5.5 The university is resourceful without fundraisers (alumni donations, corporate sponsorships, research awards, etc.)

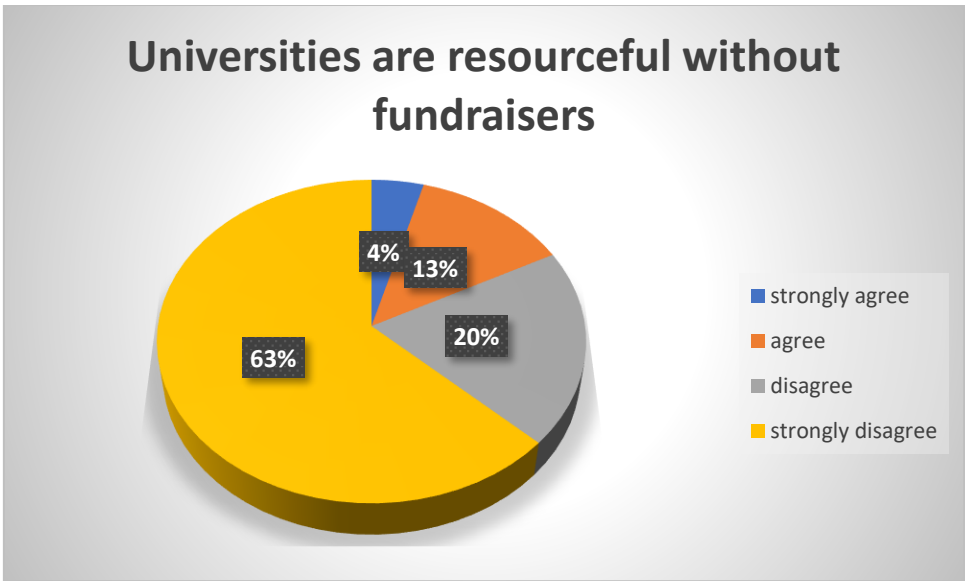


Figure 4.4

(Source: Fieldwork)

According to the chart above, 63% of respondents strongly disagreed with the above assertion that without fundraising activities, the university is resourceful, while.

Nevertheless, 13% of participants agreed and 4% of them strongly agreed with the above statement. The outcomes indicate that in the next decade, financial sustainability will be a fundamental challenge because universities will not be able to fulfil their multi-mission. Only those universities with sound financial structure and stable flow of income will be able to adapt to the current challenges in an increasingly dynamic global environment.

4.5.6 The university is in partnership with different stakeholders to gain more funding

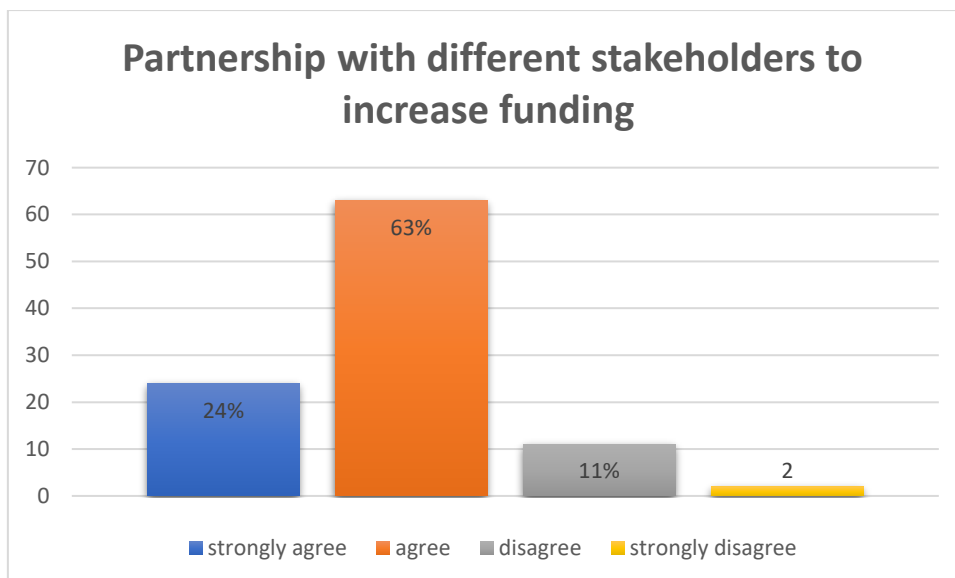


Figure 4.5

(Source: Fieldwork)

A majority (63%) of the participants stated that their university has supportive partnerships with various stakeholders, while 11% of respondents disagreed with the above-noted opinion. The above findings indicate that universities partner with various companies to receive additional funding.

4.5.7 Alternative sources of funding have been identified by the university and perused

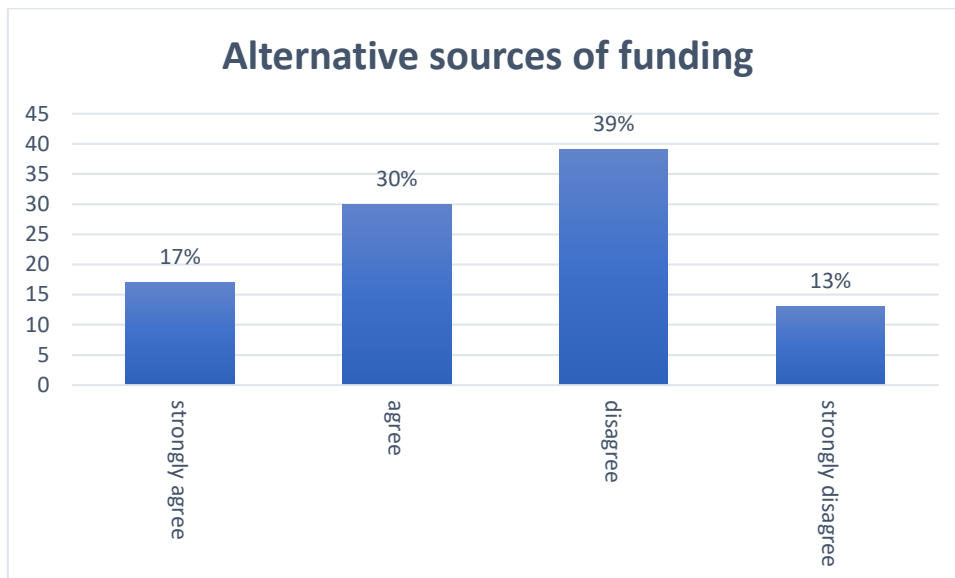


Figure 4.6

(Source: Fieldwork)

Figure 4.6 also reveals that a total of 39% of respondents indicated that they disagreed that the no identified, or perused alternative sources of funding also indicated 13% of participants strongly disagreed with the statement; 30% of the respondents agreed, however, and 17% agreed strongly with the above statement.

The findings show that 39% of participants disagreed with the statement. If they are correct, this entails that universities will find themselves drowning if, in future, government fails to deliver on their promises. Although some universities accept more international students to bolster their coffers with the higher tuition fees they pay, this is not sufficient. Universities need a strong boost from all three funding streams. This raises the question of whether or not fee-free higher education in South Africa is effective and whether the funding will be sufficient for universities to operate effectively in the long run.

4.5.8 The university has put more focus on intake of international students

Table 4.18 The university has increased recruitment of international students

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	35	76	76	76
	agree	5	11	11	87
	disagree	5	11	11	98
	strongly disagree	1	2	2	100
	Total	46	100	100	

(Source: Fieldwork)

A majority (76%) of participants strongly agreed, while 11% merely agreed with the above statement. However, another 11% disagreed with the assertion and 2% strongly disagreed with it. Therefore, the above provides fairly strong evidence that universities are focusing more on the enrolment of international students, because these students not only have to pay higher tuition fees but are required to pay a significant portion of them in advance. They are also required to have settled any outstanding amounts owed from previous years of study in order to undertake a new study year. International students are clearly seen to be significant in terms of income, precisely because of their higher tuition fees they pay. Therefore, attracting many international students, who pay higher tuition fees, is seen as part of South African universities' strategic responses to generate non-governmental income.

4.5.9 To be sustainable in the long run, the university has to find ways of generating their own income

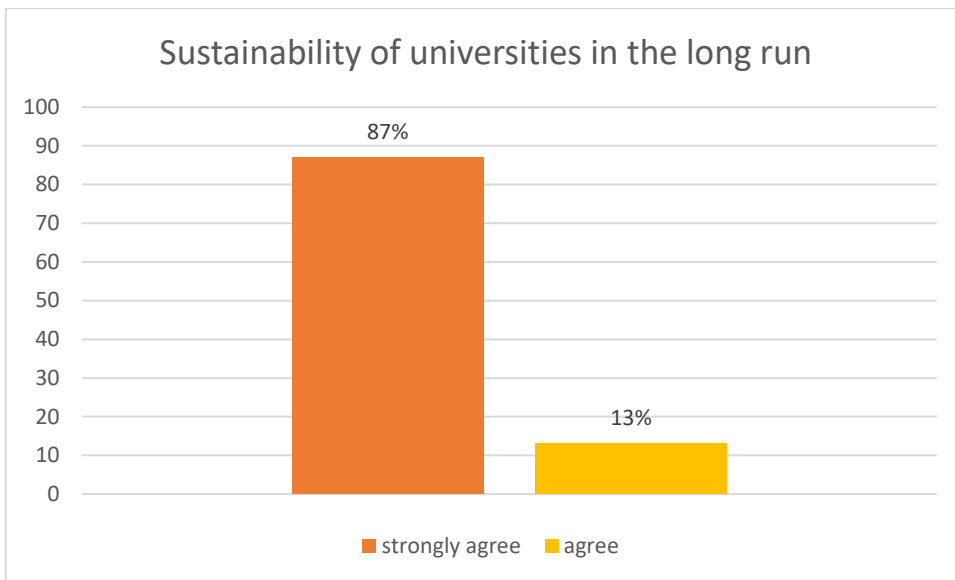


Figure 4.7

(Source: Fieldwork)

The above graph shows that 87% of respondents strongly agreed and 13% of them agreed with the statement that universities need to find ways to generate their own income.

The respondents evidenced a fear about the university's sustainability in the long run. It has only been three years since the implementation of fee-free higher education, but things at universities are not looking good. If 87% of respondents strongly agreed with the statement, this is an indication that universities need to look for other ways to generate their own income for backup purposes.

4.6 Interviews

In this segment, the researchers gathered the qualitative data from the three participants in response to the sub-questions of the study (Appendix B). Semi-structured interviews were performed, and the three interviews are summarized as follows.

4.6.1 Background of respondents

The respondents were senior management staff in the financial accounting, management and supply chain departments. They were chosen because they were dealing with the overall finance of the selected three institutions, and because of their broad understanding of how the selected universities operate financially. They were chosen because they were decision-makers within the

institution in terms budgeting and costing. They had a good working knowledge of how the budgeting processes function, and how changes to the system would affect other systems and the university as a whole. As a result of their broader understanding, they had important insights into the consequences of budget reductions.

Most universities prepare their budgets weekly, monthly and annually. The question below was asked based on budget disruptions that might have occurred due to unplanned introduction of fee-free education. The researcher interviewed the respondents to try to understand the impact of budget allocation

The interviewer asked the respondents about the effects of fee-free education on the university's financial planning in terms of what cost cuts the university had been forced to implement due to fee-free education.

Respondent One replied:

As the university we had to make sure we reduce on student tutors in certain faculties. For example, in applied science faculty we had to reduce several number of student tutors who were assisting students. We had to reduce on student working programmes where students work in IT centres to assist other students.

Respondent Two mentioned financial policies that they had put in place as a university:

Because we work on the robust financial policy, so as the university we strive to achieve 50% of revenue from teaching and learning, we strive to achieve 50% revenue as a service. The intention then is to put that surface on cash reserve, and we can build cash reserve, then from cash reserve we earn interest component.

From the interest we spend money on capex expenditure, buying of furniture and litigious things that only on the interest, then in terms of how much cash we must have in the bank, we look at the operation cost and we say between 20%-30%: 20% in the lower limit and 30% in the upper limit of the operation cost must be cash in the bank.

Institutions trying to succeed in this competitive environment are now finding areas where they can reduce costs. There may also be a need to cut personnel salaries, with undesirable implications. Even if academic positions are not impacted, instability in the sector might lead to loss of the sector, as top talent might emigrate to more stable environments. In adjusting to the new climate, universities may be compelled to minimise service offerings, regardless of their importance to national growth. More students may drop out as a result of parents losing jobs, particularly students who are in the system as a result of parental work benefits.

Respondent Three reported:

Main cost cutting occurred on operational expenditure and staff, with a minimum decrease on salaries. Additional non-academic positions were frozen. Transport costs, bursaries and scholarships for students were decreased. As the university, we had to cut down lot of things like the budget that was meant for buying new beds, stoves and other things for residence. They have to divert those funds to other accounts because they were mainly hit by 2016, 0% increase of tuition fees which they were in a process of patching there and there but free higher education came as a big surprise for them which they were not prepared for, so when free higher education was introduced they knew as the university they will find themselves under the bridge so they were left we no choice but forced to do drastic changes on their weekly, monthly and yearly budget and everything just became a mess. But they were doing their best because they don't want to fail the university.

One respondent shared the challenges they have faced due to the 2016 0% fee increment, pointing out the negative impact on budgeting that has caused by the fee freeze even though the government contributed funds to make up part of the shortfall.

University Y had to account for up to 30% of shortfall. This resulted in reallocation of funds, challenging the institution's ability to meet the range of requirements set, while students were protesting for what was promised to their parents in 1994 so, us as the university, we had to be a fall for such

consequences. So, none of the universities expected a 0% fee increase. Most of the university's budgets were already finalised and therefore no plan was in place. The announcement led to an immediate shortfall of between R45 million and R180 million per university, depending on the tuition fee structure of the universities. Now down to 2017 boom higher education is free what about the shortfall that resulted from 2016?

The researcher asked the below question in an attempt to understand whether there were any codes/units within the already-completed budget that could be reduced in order to ensure that the core functions of the universities were not being influenced due to budget cuts.

Interviewer: *How has cost cutting influenced the core function of the universities?*

Respondent one replied:

The influence of cost cutting had a negative effect, mainly on budgeting because we had to try by all means to scrutinise our budget and try to minimise for other opportunities. It was not easy but we had to do our best, for instance when we have to purchase goods/service management had to meet and try to see reason and understand the need to purchase whatever good/service that need to be purchased and they have to make sure whatever that need be purchase we stay long based on quality.

Respondent Two:

There is no fee-free higher education that exist because at some point someone has to pay. the money has to come somewhere; the capitalist will eventually pay for socialist but there is nothing life free.

We had to instil financial discipline in the university. we went to an extant process in 2016 where we had to clean up the base that was part of new budgeting. We introduced the concept in 2019 for 2020 holding grudges and said no increase, and to some certainly around labour increase we went on a three-year deal that no increase will take place so that what they opposed to negotiations so they can certainty.

Respondent Three:

Cost cutting did not have that much influence in the core function of the university, although some are of the opinion that this is inevitable. Growth opportunities, the ability to expand and the impact on research outputs will be influenced. This is due to much needed expansion in infrastructure and capital equipment in the education and research sector that is prohibited.

Some universities used to provide financial assistance to deserving students based on academic performance. For example, for first year students could receive up to R40,000 in discounts on their university tuition for passing all modules in the first year of study. Matric students who passed with flying colours were usually offered a full bursary that covered their first-year tuition fees, and the extension or renewal of the bursary for the following year would depend on the outcomes performance of the student. Merit bursaries were usually based on the overall average obtained for six subjects (excluding Life Orientation) in the final Grade 12 examinations, or the Application Point Score (APS). For some universities they would offer a bursary covering the first year's full tuition for achieving an APS score of 53 and more.

Interviewer: *Does the university still give internal and external bursaries to students?*

Respondent One replied:

We used to give internal bursaries of up to 14% of the university's total fees and levies. So, we had to reduce the internal bursaries and scholarships by 60% due to the free higher education.

Anything that is not properly planned always has unintended consequences in the long run. For some unplanned events, negative results become apparent within a relatively short timeframe. The implementation of free higher education without proper planning in place has put universities under intense pressure. The researcher asked the below question in order to understand the effects on university budget operating that had resulted from the unplanned implementation of free higher education in 2018.

Interviewer: *How has the introduction of fee-free education had an effect on university budget operating?*

Respondent One replied:

The introduction of fee-free education had a big negative effect in our university, but if I take you back in 2016 0% student tuition fee increase, those circumstances were made that resulted in a deficit of R2.33 billion to all 26 South African universities. To manage the deficit, we had cut down on capital and operational expenditure, including infrastructure, furniture and computer equipment, staff costs, bursaries and scholarships and student transportation costs.

Respondent Two reported:

Our budget happened to upside down because we had to do lot of changes in it and do lot of budget cutting, like cutting of refreshments budget that is used when we held meetings, so for internal staff would be asked to bring their own food and we only cater for external staff.

The financial-aid system is still facing same or similar challenges that it faced even before the fee-free higher education. The current system is not sustainable.

Interviewer: *Is the current level of university-funded financial aid sustainable?*

Respondent One replied:

As per my observation it is not sustainable yet, maybe in the long run we might see changes in it but for now.

The following interview questions focus on alternative resources being used by universities to cover up shortages in the funding of fee-free education. The researcher was trying to understand if there were any alternative resources that are in place for universities in case there should be a shortfall resulting from the implementation of free higher education. It is understandable that for any entity is supposed to have alternative revenues resources as a backup in case things do not go well where they usually get funding from. In the case of universities, multiple alternative sources of revenue would seem to be vital to survival in the new operating environment.

As with any organisation, if there is no backup structure of alternative revenue resources, when a business collapse due to no funding it is impossible for it to

bounce back if it happen mange to bounce back one would notice that not all the avenues that were in place will still be in access or available, some avenues will have to be shut down completely because of no or not enough alternative revenue resource for operating. So, imagine for universities whey they are unable to operate due to shortfalls that result from free higher education because of limited alternative revenue resources, a possibility of university offered programme may/will be limited or may not even be offered.

Interviewer: *What are the alternative revenue resources that are open to the university to cover funding shortages resulting from fee-free education?*

Respondent One replied:

I doubt if there are any alternative revenue resources. This free education for university students was more like fly-by-night thing. It just crippled all plans we had, so as a university we were not prepared as much as we did think that it will be free education for higher education but we never thought it's going to happen overnight, free higher education is a huge project it need to be properly planned and allow universities to be prepared, but in this case we never been given a chance by former president Mr Zuma. Maybe the management is working on something. I don't know. But I am just concerned and worried about the long run.

Respondent Two said,

When it comes to alternative revenues there is so much implementation that needs to be done by the institution. Yes, we do have funding that comes from research and development but it's not enough and we not used to wait on government to allocate. But now we are forced to wait, though international students do pay an upfront amount. But still there is a huge gap. Resources are not sufficient at all. Yes, we do have some, but not enough.

Respondent Three said:

When we get the money, we spend 70% of 100% and we keep 30% that goes to investment, then the investment gives out the return and we only spend on from the returns for capital expenditure and other things. That is our robust financial policy and according to university X, we don't believe

to existence of fee-free higher education. we believe that in life the is nothing is free because someone has to pay for it be it the taxpayers. When it comes to revenue, 43% of our revenue comes from research and development (RD), then 42% comes from students' fees and 15% comes from other. 67% of costs related to salaries, 7% goes to financial aid and the balance goes to payment, utilities, electricity and water.

Every budget contains nonessential items that are not central to the core functions of the organisation. For some universities to manage budget reduction, they had to reduce or cut financial commitments to nonessential items, for example re-painting of university buildings or makeover of offices. The university management in this case has to question whether the purchase of a specific piece of software is essential. Is it necessary for all departmental computers to be replaced in one fiscal year, or will replacing only some suffice? Is new carpeting needed now or can it be postponed for another year? The following question was asked by the researcher to understand how the universities intended to ensure that there was access to adequate resources and sufficient funds for future operation.

Interviewer: To meet current and future operating capital requirements how is the university going to make sure the is access to adequate resources and sufficient funds?

Respondent One said:

Catering budget, travelling budget and budget for office makeover can be reduced. It completely won't have an impact on academic project. The university is in partnership with different stakeholders for funding now we currently working on ways of boosting our fundraising system it has been there before, but it became weak since free higher education has been introduced.

Respondent Two said:

In 2016 we had to look at the future of the university and we decided to take R2m out of the cost base and R1m out of salaries and R20m for other costs. When we end that project, we achieved a profit of R112m. From that we clean the base and reses the base and start functioning again. As

the university, we introduced a commercial development unit for the university to make extra income, which is the third-stream income. So, the third-stream income is a very important component and will never replace state funding and it will never replace student fees. We run a R4b teaching and learning project. From that R4b we take 3% for services, then the commercial development unit begin to supplement that 3%, which is R120m. Then we take 43% of state funding to finance other things.

Many universities spend their budgets on fixed and recurrent costs, which are directly related to the delivery of the universities under their primary mandate. In order for them to proceed down this path, all three funding sources (i.e. government grants, school fees and third-party revenues generated from corporate and commercial practices, investments and donations) must keep flowing. Now that school fees have dried up due to a fee-free higher education scheme that has been implemented without being properly planned, it seems as if universities are facing major repercussions. The below question was asked in order to understand the sufficiency of resources to support the strategic objectives of the universities.

Interviewer: *Are resources sufficient and flexible enough to support the strategic objectives of the university?*

Respondent One said:

No, the university needs to find ways of generating its own income, like fundraising, leasing out some of their buildings they not using. This free higher education was a big unplanned surprised announcement by former president, we were never prepared for it, so the resources are not fully sufficient enough nor flexibly and now we are hit by COVID-19 it's gonna [sic] be tough you see.

The following question focuses on strategies that are in place to mitigate the challenges emanating from fee-free education. As the fee-free higher education has been rolled out prematurely and tuition fees have been abolished, the researcher is trying to investigate the financial strategies put in place by universities in case this free higher education strategy collapses.

Interviewer: *What other areas of expenditure can the university reduce without negatively impacting the academic project?*

I think it would be wise enough if we reduce more on student funding. For God's sake students are fully depending on government except international students. Completely cut off the budget for refreshments and divert those funds to another account that need funding within the university. Another thing reduces on office makeover now we cannot afford spend reckless. Our furniture in our offices is still in good condition.

4.6.2 Summary of the chapter

The approach and methods adopted were explored and illustrated in this chapter. In order to assess the variables of respondents, demographic data, such as the gender profile, and demographics, were analysed. Descriptive analysis was also used to analyse the Likert scale questionnaires. The study was triangulated in order to explain the relationship of qualitative and quantitative surveys and the respondents' perception.

The next chapter discuss chapter four results into detail.

CHAPTER 5: INTERVIEWS AND QUESTIONNAIRE DISCUSSION

It is necessary to reiterate the research question, the research sub-questions and the research objectives of the analysis, in order to explain and to enhance the understanding of discussions of results.

Investigative questions have been asked, linked with the objectives and methodologies for responding to these investigative questions. The investigative questions were as follows:

5.1 Research questions

- How has the introduction of fee-free education impacted on universities in terms of budget allocation?
- What strategies are in place to mitigate the financial challenges emanating from fee-free education?
- What alternative revenue sources will be (or are being) used by universities to cover up shortages of funding as a result of fee-free education?
- What are the effects of fee-free education on the university's financial planning?

The investigative questions above had the following corresponding research objectives:

5.2 Research objectives

- To determine the cost implications of fee-free education in carefully chosen universities in the Western Cape, mainly focusing on the impact of budget allocation;
- To understand the strategies that are in place to mitigate the challenges posed by fee-free education;
- To examine the alternative revenue sources to be used to cover up shortages caused by fee-free education; and
- To determine the effects of financial planning of fee-free education at universities.

Accordingly, in the sections that ensue, discussions of the findings are aligned with these investigative research questions and research objectives.

5.3 Discussions on university budget allocation impacts

How has the introduction of fee-free education impacted on the university in terms of budget allocation?

The Chapter 4 results show that the three selected universities must adopt strict cost control measures in order to accommodate other opportunities to accomplish what is required of them. The difficulties experienced by Kenyan universities mirror the results in Chapter 4 of the study, in which the selected three universities experienced budget cuts and a major threat of job reductions, particularly for those on contract, where cost-cutting steps need to be placed in effect. Significant employment cuts have emerged in several Kenyan universities, and they cannot continue to employ more staff. The situation in Kenyan universities has necessitated some drastic cutbacks, where they have to tighten their belts after facing a \$10 million (R165728500.00) decrease in expenditure that would exacerbate their financial troubles, despite several initiatives designed to prevent a potential downturn in the economy.

One participant interviewed said that they have been left without any other choice but to cut costs where necessary. They had to reduce their budget, which was mainly earmarked for student teachers (tutors) and job training programmes. Another participant mentioned financial disciplines adopted by the university, where they had to enter into a contractual agreement that there would be no financial increase occurring until the university is back on its feet and operating as usual. They also educated their SRC members about how financial decisions were made, so that they didn't spend money in an imprudent way. Even so, it is apparent to some institutions that they had been hit by a budget crisis since the fee-free education system was rolled.

Some of these universities were still recovering from the fee freeze in 2016. None had been expecting to be unable to raise their fees. None of the university's budgets had been set, and so no strategy was enforced. The cost cutting had a

negative effect on the operations of universities, because in order to fund deficits universities had had to minimise capital spending.

5.4 Discussions on strategies in place

These were conducted in order to understand the strategies that were in place to mitigate the challenges of fee-free education.

What strategies were in place to mitigate the financial challenges emanating from fee-free education?

Snodgrass (2016) claims that, in its initial stages, fee-free higher education will put HEI's under severe strain, which will eventually force universities to engage in infrastructure growth with an increasing population of students.

Some of the strategies implemented are geared toward eliminating support for teaching material, and this raises serious questions, because universities are now excessively-compromising where they do not sacrifice. The reduction of training and development for university teachers means that universities will have underqualified or incompetent staff/teachers to teach and run the operations in the universities. Training and professional growth of workers in any company is really important, and a well-trained workforce ensures rapid, unproblematic delivery of services.

One interviewer stated that "universities should further diminish their student financial assistance" and said that universities would decrease their funding per student if the government took full responsibility as the student's main donors. One of the policies required them to hold off on any office refurbishments, as they felt that they could not afford to spend carelessly on furniture, because the furniture in their offices was in excellent condition.

Some respondents mentioned that universities have an appetite for reducing non-essential capital spending, assuming that current policies are not daunting, but universities need to start fundraising, renting out seminar venues and halls, renting out student residences during winter and summer vacations and ensuring that they build solid relationships with existing stakeholders.

Although some of the strategies in effect were targeted at eliminating certain allocated funding to certain faculties/units, these would also have a detrimental effect on the quality of university services. Service quality remains one of the most important efficiency metrics at any university (Allen, 2017). This begs the question as to whether free university education is still affordable in the South African context: 30% of respondents agreed that, in the interest of saving cash, the university would be forced to abandon facilities destroyed by students. Bastedo (2017) argues that the lack of funding is apparent in the fact that physical structures are in poor condition at the respective universities, that many renovation and research projects have been abandoned, and that laboratories and libraries are poorly equipped. Almost all measures in effect are measures that will have a detrimental effect on universities in the long term, because they are forced to compromise.

5.5 Discussions on alternative revenue resources

To examine the alternative revenue sources to be used to make up shortfalls caused by fee-free education.

What alternative revenue sources will be (or are being) used by universities to cover up shortages of funding as a result of fee-free education?

46% of respondents said that resources to sustain the strategic objectives of universities were scarce and not sufficiently versatile. The premature implementation of free higher education will further worsen this situation. Results in Chapter 5 are aligned with Bruce & Lorraine, (2016), namely that higher education is a money-hungry sector which cannot operate efficiently without a continuous and scaled-up major injection of capital. Universities have inadequate finances to fulfil existing and future operating and capital requirements with limited access to resources. In the examination of England's free university issues, it was clear that government funding failed to keep up and institutional resources fell in actual terms by more than 39% per full-time equivalent student in the post-1986 decade (Blanden, Gregg, & Machin, 2005).

Forty eight percent of respondents firmly disagreed with the contention that universities had the largest endowment funds and a limited percentage of them are alumni contributions. The question now exists as to whether or not South Africa's fee-free higher education would be effective and whether financing will be sufficient for universities to operate effectively in the long run.

Financial sustainability will be one of the major issues facing institutions over the next decade. Only those institutions with stable financial structures and secure funding sources will be able to perform their various roles and adapt to current threats in an increasingly dynamic global environment.

Results show that 39% of respondents disagreed with the claim that universities had established potential sources of financing and claimed that universities could plunge if the state stopped delivering on its commitments. One of the interview participants said that they would need to find new ways to boost their own revenues for universities to keep afloat.

Some universities admit more international students because of the high tuition fees they pay, but this is insufficient for universities. Universities require more money from all three financial streams, including tuition fees, state grants and donors. It is questionable whether or not South Africa's fee-free higher education is sustainable and whether resources will be adequate for universities to operate explicitly in the long term.

Seventy nine percent of the respondents agreed that universities were more focused on international students for the purpose of generating alternative revenues. However, with the impact of the COVID-19 pandemic and the resultant travel bans, this extra revenue opportunity has been critically impacted. As a result, universities with more students outside SADC draw more international students than SADC-based students. International students at South African universities have a broad audience to make money from. As a result, international students paying higher fees are seen as part of a strategy for South African universities to boost non-governmental revenues.

The impact of the spread of COVID-19 on higher education institutions (HEIs) around the globe is a major concern, especially in higher education. Financially dependent organisations would be most by the rapid spread of the virus, which has had a negative impact on global mobility. As a result, it is unclear at what stage international students feel safe and secure to pursue education in a world that is still the epicentre of the pandemic, even though some international air travel will be resumed in summer, and most universities will be re-opened for on-campus learning before the fall semester. This implies that the student visa restrictions will be strengthened by other countries. COVID-19 will have an effect on the mobility of international students. The longer COVID-19 takes to eradicate, the more adjustments will be implemented for international students. For universities that have already been financially strained or operate from a pre-pandemic deficit environment, short-term unexpected expenditures and longer-term enrolment decreases are likely to threaten their financial health, eventually leading to massive shutdowns or mergers.

5.6 Discussions on the effects on financial planning

To determine effects of financial planning of fee-free education at universities.

What are the effects of fee-free education on university's financial planning?

The fee-free university education rollout wreaked havoc on HEIs' financial planning. Some institutions were required to retain non-academic positions due to inadequate resources. The blame for these financial woes can be laid at the door of the South African government, for not paying close attention to certain conclusions and recommendations of the Heher Commission report of 2017 namely;

- (1) All undergraduate and postgraduate students who study at both public and private universities and colleges, regardless of their family history, must be funded through cost-sharing models of government-subsidised income-contingency loans from financial institutions. Cost-sharing was seen to be effective in almost all African countries that once offered free education and, due to government subsidies, these universities had to develop alternative ways of finance from which they had to reinforce cost-sharing.

- (2) The Commission recommended that commercial banks should offer full financial support to students and that should be repayable by the student upon graduating from the university and achieving a specific level of income.

Universities experience financial stress due to free education, and the new outbreak of COVID-19 has exacerbated the situation. According to the Minister of Higher Education Dr Ndzimande, the financial effects of the pandemic on university spending total more than R3.8billion. The IOL (2020) cited Dr Ndzimande as saying, 'based on all of these considerations the funds required to support students to buy laptop funding from the National Student Financial Aid Scheme (NSFAS), the total financial effect is R3.8506 billion.' He claimed that the institutions estimated that it would cost R1.8 billion to guarantee that their campuses met healthcare and safety requirements if staff and students were to study.

It is clear that the cost effects of fee-free education and the financial impact of COVID-19 on universities will have significant negative repercussions in the long run. In the case of colleges and universities, the coronavirus pandemic has severely affected day-to-day operations. Not only have universities and colleges virtually had to move more or less instantaneously to online learning, but corporations are suddenly posing immense financial challenges, while global economies are also witnessing what seems to be a growing crisis. Working capital is the most urgent problem for most entities. Universities also face unforeseeable costs, including insufficient payment of facilities, room and board, and a need to expand automated engagement patterns as they minimise parking charges, canteen revenues and other subsidiary earnings.

Many institutions are going to require a rapid transformation of their activities to ensure continuity over the long run. Fee-free education has now impacted regular university spending, and the disease outbreak is worsening the situation. If universities succeed in re-opening campuses, universities will need to redirect resources to ensure that sufficient testing facilities are installed on campuses and in residences. Universities rely on three revenue streams; but the third stream is increasingly declining as investors are in turmoil, and companies are diverting

money to ensure that they stay sustainable. The next chapter summarise objectives, conclusions and recommendations from the study.

CHAPTER 6

SUMMARY, CONCLUSIONS and Recommendation

6. INTRODUCTION

The previous chapter discussed the key findings of qualitative and quantitative data analysis. This chapter summarises the objectives and extracts conclusions regarding the strategies put in place to mitigate the financial challenges emanating from fee-free education, as well as the alternative revenue sources which will be (or are being) used by universities to cover up shortages of funding.

6.1 Summary derived from objectives

6.1.1 Objective one: To determine the cost implications of fee-free education in carefully chosen universities in the Western Cape, mainly focusing on the impact of budget allocation. In all three chosen universities budget allocation has been affected, when one component as part of operating is winning and the other is losing due to financial reasons that shows that the university is unable to function fully.

6.1.2 Objective two: To understand the strategies that are in place to mitigate the challenges caused by fee-free education.

Based on the responses collected, there are few strategies in place to mitigate fee-free education challenges. Some of the strategies that are in place are to divert funding from some units to others. For instance, the budget that mainly to recruit student tutors to assist students had to be cut off and divert those funds into another unit that is need for funding.

6.1.3 Objective three: To investigate the alternative revenue sources to be used to cover up shortages caused by fee-free education.

Based on the findings, the resources are not sufficient, nor are they flexible enough to support the strategic objectives of the universities. This leads us back to the questions that were once asked back in 2017. When former president Mr. Zuma announced fee-free higher education the question was, will universities be able to adapt easily in this newly implemented fee-free higher education? As per

the analysis in Chapter 4, the answer is no, because none of these universities were given time to prepare themselves for what they would be facing or dealing with.

Bear in mind that fee-free education is not a novel phenomenon in Arica. The African universities who once had fee-free education were faced with financial issues in the long where they were unable to operate. Some were forced to cut down on capital expenditure and many were forced to tighten their belt just to stay afloat. Half (50%) of the respondents believed that universities were not living within their means with regard to available revenue resources. Even though Kenyan universities had offered fee-free education, their initial enrolment figures were manageable. For example, Kenyan universities were initially dealing with roughly 300 students, but the enrolment increased at an uncontrollable rate, causing funding issues to arise within the universities as the government was unable to deliver on its funding promises. When enrolment started to increase, universities were unable to cope financially. Many of these universities were forced to revert to cost-sharing.

According to the analysis in Chapter 4, university sustainability will be one of the key challenges in the long run, especially for those institutions with limited alternative revenue sources.

6.1.4 Objective four: To determine the effects on financial planning of fee-free education at universities.

With regard to the effects on financial planning, universities have been caught in a crossfire, where they have to tighten up their budget so that they can perform as expected of them by the Department of Higher Education. For example, some of those universities were forced to cut costs by not paying for their staff to attend academic conferences, and also reduce transport costs and financial support for students (bursaries, scholarships, for example). Some of these effects have detrimentally impacted the core functions of the universities concerned.

One of the interviewees mentioned that additional non-academic positions were to be put on hold. In the future this is likely to result in poor delivery of education.

Sooner or later those universities will experience what Kenyan universities went through, where eleven of their universities were declared insolvent.

Comment: You do not need to restate the objectives and repeat the outcome of your findings to objectives. I feel you are boring your readers and too much repetition. The same objectives were stated in the previous chapter.

6.2 CONCLUSION

The chosen universities seem to be facing serious funding challenges. The strategies that are being put in place still rely heavily on the state for funding. The strategies that are being put in place take the form of short-term compromises to keep the universities afloat. One of the strategies is the cutting of the budget allocated for faculties, reducing funding of learning materials, and cutting of the university's staff training and development budget. These short-term compromises, born of desperation, will have severe impacts on the quality of education if allowed to persist.

The findings show that universities have limited alternative resources, and one of the interviewees stated that they were unaccustomed to waiting for government to allocate funds for them, because all students had been paying tuition fees before the fee-free rollout, and that they were putting more focus on international students as they are not beneficiaries of fee-free education, and therefore represent a useful source of revenue.

While international students do provide much-needed revenue, the world has been hit by COVID-19, which makes things very difficult for some countries in terms of travelling regulations that are in place.

Financial sustainability will be one of the key challenges facing universities. Only those institutions with sound financial structures and stable income flows will be able to fulfil their multiple missions and respond to the current challenges in an increasingly complex and global environment. Institutions that are financially dependent on international students will be mainly affected, given the fact that the disease has spread rapidly and has severely impacted international travel. Some countries will become stricter in terms of issuing student visas due to this

pandemic, and this will have a predictable impact on those universities relying on foreign students as a revenue source.

6.3 Recommendations of the study

Based on the findings of this study, the researcher recommends that

1. Regardless of challenges faced by higher education, it is important for universities to revert to cost-sharing in order to manage any challenges resulting from fee-free higher education funding.
2. The concepts of cost-sharing include direct cost recovery and thus education pricing policies and indirect contributions from pupils, their parents and sponsors, which may be voluntary, quasi-compulsory or even compulsory.

Cost-sharing provides a breathing space which can allow universities to allocate resources to growth, which will eventually enable them to assume greater responsibility, resulting in delivery of better educational outcomes.

6.4 Suggestions for future studies

The researcher suggests that future studies should develop frameworks regarding how universities should come up with different strategies to use in order to mitigate the challenges emanating from fee-free education, as well as alternative revenue sources that must be used by universities to cover up shortages of funding that result from fee-free higher education.

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Appendix A

Questionnaire

COST IMPLICATIONS OF FEE-FREE EDUCATION ON THE FINANCIAL MANAGEMENT OF SELECTED UNIVERSITIES IN WESTERN CAPE

All responses will be treated in STRICT Confidentiality. Your participation is greatly appreciated.

Please answer all the questions by ticking or writing in the appropriate spaces provided.

PART A: SPECIFIC QUESTION TO RESEARCH

How has the introduction of fee-free education affected your university in terms of budget allocation...?

Using a rating scale of **1 to 4 (where 1 = strongly agree; 2 = agree; 3 = disagree; 4 = strongly disagree)** please indicate your level of agreement to the following statements on university budget allocations due to fee-free education

SA= strongly agree A= Agree D= Disagree SD= Strongly disagree

	SA	A	D	SD
Stringent costs cutting measures had to be put in place to control cost (overall university spending)				
The university has to scrutinise budgets for other opportunities to reduce variable costs				
The university was forced to scrutinise budgets for other opportunities to minimise fixed costs				
The university had to cut down on operational expenditure				
The university forced to cut down on capital expenditure (Capex)				

There is general communication from the top management to the middle management (and departments) about an imminent cost cutting measures				
The university is forced to cut down on student support expenditure				

PART B:

Strategies that are in place to mitigate the challenges emanating from fee-free education

Using a rating scale of 1 to 4 (**where 1 = strongly agree; 2 = agree; 3 = disagree; 4 = strongly disagree**) please indicate the importance of the statement on the challenges that emanate as a result of the fee-free education campaign

SA= strongly agree A= Agree D= Disagree SD= strongly disagree

	SA	A	D	SD
Insufficient funds to recruits tutors for teaching and learning support				
Insufficient funds allocated for refreshments during meetings held by the university staffs				
Increased occurrences of budget <i>virements</i> among budget units/codes.				
Some faculties may negatively be affected if the university cut certain allocated budget.				
Reducing funding on learning materials				
Cutting of university staff training and development budget				
The current levels of merit awards are not affordable and sustainable				
Reduction of non-essential capital expenditure, such as requests for office make-overs (replacement of old but				

serviceable furniture & equipment), catering costs, travel costs etc				
Replacement of beds and stoves at residence might be postponed to cut cost in the short term				
Reduction of municipality services in some faculties to lower municipality rates				
Pressure on universities to admit more qualifying students, exceeding the recommended student lecturer ratio, thus resulting in potential overcrowding				
The cost of fixing the buildings that were touched or vandalised by students during fees must fall has led the university to abandon those building due to high costs of fixing				
The university has cut cost on attending academics conferences				

PART C:

Alternative revenue sources will be (or are being) used by universities to cover up shortage of funding fee-free education

Using a rating scale of 1 to 4 (where 1 = strongly agree; 2 = agree; 3 = disagree; 4 = strongly disagree) please indicate the importance of the statement on the alternative revenue resources: -

SA= Strongly agree A= Agree D= Disagree SD= Strongly disagree

	SA	A	D	SD
Resources are sufficient and flexible enough to support the strategic objectives of the university				
Operating results indicate the university is living within available resources				
The university have adequate resources and access to sufficient funds to meet current and future operating and capital requirements				

The university have the largest endowment funds in the world and a substantial part of it is contributed by the alumni				
The university is resourceful without fundraisers (alumni donations, corporate sponsorships, research awards, etc.)				
The university is in partnership with different stakeholders to gain more funding				
The university has engaged with companies that open new avenues of funding or opportunities to commercialise academic research.				
The university has put more focus on international students' intake as the fee-free campaign does not cover them				
Alternative sources of funding have been identified by the university and pursued				
To be sustainable in the long run, the university has to find ways of generating their own income.				

(Any additional comments you would like to provide on cost implication of fee-free education)

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- Finance Administrator []
- Financial Manager []
- Accountant []
- Other specify []

3. What is the Length of time you have worked with the institution?

- Below 10 years []
- 10 -20 years []
- 21 -30 years []
- 30 years and above []

Thank you for your time and cooperation

Appendix B

COST IMPLICATIONS OF FEE-FREE EDUCATION ON THE FINANCIAL MANAGEMENT OF SELECTED UNIVERSITIES IN WESTERN CAPE

Interview questions

The effects of fee-free education on university's financial planning

1. What cost cutting that has forced the university to implement due to fee-free education?
2. How has cost cutting have influence to the core function of the universities?
3. How has the introduction of fee-free education had an effect on university budget operating?
4. How is the current level of university-funded financial aid sustainable?

Alternative revenue sources will be (or are being) used by universities to cover up shortage of funding fee-free education

1. What are the alternative revenue resources that are open to the university to cover funding shortage resulting from fee-free education?
2. For the university to meet current and future operating capital requirements, how is it going to make sure the is access to adequate resources and sufficient funds.
3. Are resources sufficient and flexible enough to support the strategic objectives of the University?

Strategies that are in place to mitigate the challenges emanating from fee-free education

1. What other areas of expenditure that that the university can be reduce without negatively impacting the academic project?

2. How is the appetite for the university in reducing non-essential capital expenditure?
3. What are the strategic plans that are in place to cover challenges emanating from fee-free education?

Appendix C



UNIVERSITY *of the*
WESTERN CAPE

To whom it may concern

We, University of Western Cape operating in Cape Town hereby consent to allow **Siyasanga Dutywa**, a student in Cost and Management Accounting at Cape Peninsula University of Technology (CPUT) to carry out her research and studies at our institution. We allow her to conduct her survey with a few of our firm employees on a date that will be suitable for both parties.

If you have any concerns regarding this matter, kindly contact me using the information provide below.

Name: Mr Shaun Jonkers
Phone: +27 21 959 2844/2497
Email address: sjonkers@uwc.ac.za



Yours sincerely,



Mr Shaun Jonkers
Director Finance



Cape Peninsula University of Technology
Faculty of business and management science

Consent to partake in an academic study

Research conducted by:

Siyasanga Zinile Dutywa

Student number: 213141698

Dear sir/madam

Invitation to partake in an academic research study

You are kindly invited to partake in research study titled **Cost Implication if Fee Free Education On Financial Performance of Selected Universities in The Western Cape**. This study being conducted by Miss Siyasanga Dutywa, a Masters student in Cost and Management Accounting at Cape Peninsula University of Technology. The main purpose of the study is to determine the effect of financial performance of fee free education at universities.

As a decision maker in the finance department at the university, your opinion is highly valued to this study, also note that your contribution is optional and you are free to withdraw from it at any time with no obligation and there no risk related when contributing to this study. Please be advise any information given by respondent will be confidential and any respondent will be kept anonymous. The information that will be collected in this study will positively contribute to how the universities are performing financially due to fee free education.

Your consent to this study will be highly appreciated

For further information, you can contact me on 073 057 3386

Email 213141698@mycput.ac.za

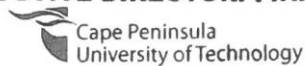
It is your consent to contribute in this study, please sign this letter

- To indicate that you have read and understand the information above
- You hereby consent to partake in this study voluntarily

Name of the university CPUT

Signature [Handwritten Signature]

the office of the
EXECUTIVE DIRECTOR: FINANCE



Ashley Francis
Executive Director: Finance

Room 308 Bremner Building | Lower Campus | Rondebosch | 7700
Telephone: +27 (0)21 650 5245 | Mobile: +27 (0)83 298 3013
Email: ashley.francis@uct.ac.za | Skype: ashley_francis
Website: www.uct.ac.za

3 June 2019

To whom it may concern

Questionnaire distribution consent letter

In my capacity as, Executive Director: Finance at the University of Cape Town operating in Cape Town (UCT) I hereby consent to allow **Miss Siyasanga Dutywa** to carry out her research and studies at our institution.

Miss Siyasanga Dutywa is noted as being a student in Cape Peninsula University of Technology (CPUT). We allow her to conduct her survey with a few of our employees on a date that will be suitable for both parties to assist in completing her Cost Management Accounting data collection.

Should you have any concerns regarding this matter, kindly contact me using the information provided below.

Name	Mr Ashley Francis
Telephone	021 650 5245
Email address	ashley.francis@uct.ac.za

Yours Sincerely,



Ashley Francis
Executive Director: Finance



As the Finance Department for UCT, our aim is to ensure financial sustainability that enables excellence in teaching, learning & research.



UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

