

**THE IMPACT OF NATIONAL STUDENT FINANCIAL AID SCHEME ON
STUDENTS' ACCESS TO TERTIARY EDUCATION IN A SELECTED UNIVERSITY
IN THE WESTERN CAPE**

by

XOLELA SOKHWEBA

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Supervisor: Prof L.O. Obokoh FCA

Co-supervisor: Mrs C Oji

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Xolela Sokhweba

Signed

September 2022

Date

ABSTRACT

The political change in South Africa implies that institutions of higher learning have become substantially a space for various individuals who, historically, would have found it difficult to gain access to them. In striving to make tertiary education more accessible, the state and institutions of higher learning perceive that inclusivity is not just the elimination of racial exclusion. It also requires support for students who cannot take up their studies because of financial constraints. South Africa is currently experiencing substantial demand for tertiary education, with most potential students unable to afford the cost of tertiary education. To address the fees challenge, the government established the National Student Financial Aid Scheme (NSFAS) to provide financial assistance to students from middle- or low-income households. After more than twenty-one years of existence, the effects of the scheme on students' access to finance is scarcely noticeable in the literature according to the researcher. Using mixed-methods, this study examines the effects of NSFAS on students' access to finance. Quantitative data collected from 501 students were analysed using the partial least square structural equation model, while NVivo was used to analyse qualitative data from four NSFAS administrative staff. The results indicated a positive effect of NSFAS on students' access to finance for tertiary education and further showed that despite the positive effect of the scheme, some challenges hamper students' smooth access to funds, which policymakers need to address.

Keywords: NSFAS, Student Performance, Tertiary Education, Student Funding, Socio-economic, Covid-19, South Africa

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DEDICATION

I dedicate this study to my mother, Gcineka Sokhweba, my son, Ivankosi, close family and loved ones, from whom I received all the love, sacrifice, support, and encouragement to work hard and become a better person in life.

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ABBREVIATIONS AND ACRONYMS

Abbreviation/Acronym	Definitions/Explanations
CHE	Council of Higher Education
CPUT	Cape Peninsula University of Technology
DHET	Department of Higher Education and Training
HE	Higher Education
NSFAS	National Student Financial Aid Scheme
REC	Research Ethics Committee

GLOSSARY

Terms	Definitions/Explanations
Academic performance	Academic performance refers to the standard used in measuring a student's successful completion of their registered course. This definition is used and understood in this study.
Bursary	A bursary in this study means the part of the loan granted to a student by NSFAS that the student is not required to pay back on compliance with criteria and conditions set in the written agreement.
Capacity	Capacity comprises the sum of the capabilities of an organisation, the ability of the organisation to successfully apply its skills and resources to accomplish its goals and satisfy its stakeholders' expectations (Sen, 1988:16).
Challenges	According to Letseka and Maile (2008), challenges refers to something that needs significant mental or physical effort and attention in order to be completed successfully and It therefore tests the person's ability. In this study, this concept is referred to the barriers that are blocking academic success.
Disadvantaged students	This refers to students who come from low socio economic (poor) backgrounds.
disbursements	Disbursement is a form of payment from a public or dedicated fund. In this study, it means a payment made on behalf of a student to a third party.
Funding Model	The concept refers to direct funding support provided by government to supplement operational cost of a certain project to assist financially (Steyn & de Villiers, 2005:12). This meaning will be used and understood in this research study.
Higher education	This refers to all learning programmed leading to qualifications higher than grade 12 or qualifications that are equivalent in terms of the National Qualifications Framework as viewed in the South African Qualifications Authority Act (Act No 58 of 1995). According to the Department of Higher Education and Training (DHET) (2012), higher education refers to post-school institutions that consist of traditional universities and universities of technology.
Loan	In this study, this means a loan granted to a student by NSFAS in order to pay the costs connected with the student education at designated higher education institution. A

Terms	Definitions/Explanations
Low socio-economic status	student is required to pay back this loan after completion of the study.
Means test	For this study, this refers to a population group whose status is a combination of low levels of education, income, occupation and living conditions – thus, people who were disadvantaged and marginalised during the apartheid era in South Africa (De La Rosa, 2006:1670).
Public Administration	According to de Villiers (2017:5), this is a way of measuring a person's income and assets to assess if they qualify or eligible for government assistance.
Successful learning	Waldo (1955) defines Public Administration as the art and science of management applied to the affairs of a government. In this study, Public Administration refers to implementation of government policy and not the academic discipline.
Student	Successful learning refers to the accomplishment of the desired aim or objective. In this study, this refers to completion of a registered course by the student.
Top slicing	A student is any person registered as a student at a higher education institution.
Underfunding	Due to university fees increasing each academic year that limit access to higher education for previously disadvantaged students, a practice called top slicing was introduced across all universities. According to Universities South Africa (2016:4), this practice is referred to as distributive mechanism in which the allocation made to an institution is spread across all qualifying students. This will then result in all students receiving less than the full-recommended amount by the NSFAS' means test
	According to Machika and Johnson (2015:171), underfunding refers to the shortfall of allocated funds insufficient provision of money for a particular purpose. This means that there is not enough funds available to assist all the students who have gone through the means test and qualified to be funded.

CHAPTER 1

INTRODUCTION

1.1.1 INTRODUCTION AND BACKGROUND

Access to higher education in South Africa at large was and is still the prime concern in national government's transformation agenda since education is deemed to be the most powerful weapon that can be used to change certain circumstances. However, it is common knowledge that many people are unable to access this powerful weapon as the cost of attending university is high and many were previously disadvantaged due to factors such as racial discrimination, unemployment, poor health, and low household income. Rural-urban variation in access to higher education and training also plays a part in that learners who completed Grade 12 in rural areas are less likely than urban high school graduates to access tertiary education. Generally, learners in rural schools do not have access to information technology to obtain information about access to higher education. In addition, there is a limitation in career guidance in rural areas compared to urban areas (Looker & Lowe, 2001:4). In this regard, the South African Higher education system is under considerable pressure to provide access to quality education to all (Vandeyar, 2010:344).

This considerable pressure includes broadening formal access to previously disadvantaged students and providing them with financial assistance. For this reason, the National Student Financial Aid Scheme (NSFAS) was introduced in 1999 to provide the necessary financial aid to students from low socio-economic backgrounds so that they can obtain higher education qualifications. With these qualifications, students will be able to spread out South Africa's competence and serve as a mechanism for flouting the intergenerational series of household deprivation and exclusion (Matukane & Bronkhorst, 2017:2).

Furthermore, NSFAS has become an increasingly significant source of funding for higher education and training in South Africa (Machika & Jones, 2015:169). In addition to its main objective, the scheme also supports students with disabilities, handling bursaries linked to certain professions such as educators and social workers.

Lewin and Mawoyo (2014:23) believe that students from disadvantaged backgrounds who are admitted to institutions of higher education and training face difficulties such as financial means and lack of support from their illiterate parents. Letseka and Cosser

(2010); and Sekhekhune (2008) are of the view that the impact of poverty on students starts at an individual level, however also influenced by institutional policies as well as the economy. Therefore, NSFAS was born out of the need to ensure that large numbers of poor students are able to access higher education.

Although NSFAS should be hailed for making higher education accessible and affordable, making sure that it provides a sustainable economic help system to academically deserving and financially deprived students, the reality is that the funds are not sufficient to cater for everyone in need for costs related to higher education studies (Jackson, 2002:85). These challenges are significantly caused by the socio-economic status of poor students entering university unprepared to fight poverty, the effects of NFSAS administration on students and its impact on the students' academic performance (Moll, 2004:211).

From the aforementioned, it is clear that the overall effect has been that many students from disadvantaged backgrounds are denied access to higher education systems because of their inability to fund university education and challenges they experience. This study aims to understand how NSFAS has reduced or otherwise mitigated these challenges and how it has supported students and enabled their academic success. These issues are discussed in the literature review and theoretical framework.

The layout of the chapter is as follows: In section 1.2 the problem statement is provided. This is followed by the purpose statement then the research question and sub-questions. Objective of the study is also included in the layout of the chapter followed by research design and methodology and after the delineation of the research . The chapter further outlines the significance of the study and limitation and constraints. This is followed by ethical consideration, contribution of the research and the outline of the study.

1.1.2 PROBLEM STATEMENT

It is clear that students need more than NSFAS is currently offering to meet the limited social mobility conditions that they are studying under as a result of poverty and inequality. Many students are underfunded by NSFAS, which means the scheme simply fails to pay the right amount of money to the right students at the right time. Some students end up working part-time to support themselves, with adverse consequences for their ability to focus on studies and complete their qualifications on

time. For example, if the students do not receive their book allowances on time, they will not be able to obtain prescribed textbooks and readings to participate in the academic activities of understanding the content of their different subjects, completing, and submitting assignments and tasks, and studying and preparing for tests and examinations. Also, if students are not provided with travelling or food allowances from the beginning of the first term, those students would not be able to attend classes, nor will they be able to concentrate or function effectively(Machika & Johnson, 2015).

In addition, Motala and Pampallis (2005) note that delays in finalising institutional allocations and loan agreements between students and NSFAS are other major challenges working against the success of NSFAS. The scheme has been widely criticised as being slow, inconvenient, and inefficient, hence there is a need for revitalisation (Fiske & Ladd, 2004:116; Motala & Pampallis, 2005:8). One of the main contributors to this inadequacy is the delay in transferring funds from the Department of Higher Education and Training to higher education institutions, the scheme not being able to provide for all the student's financial needs and the relaxed dispensation of bursary submissions and agreement, which interrupt finalising distribution to qualifying students.(Macube, 2021)

These challenges create difficulties for students and universities at large as late disbursements of NSFAS allocations to students delays registration, accommodation, travelling, food, and book allowances (McGie, 2012:27). Furthermore, these challenges result in high dropout and low graduation rates due to students' inability to fund their university education and lack of financial assistance that impact on their academic performance, retention, and success (Machika & Johnson, 2015:168).

In this regard, this study examines the impact of NSFAS on students' access to tertiary education. In addition, it interrogates the process followed in administering NSFAS bursaries, how it has impacted on students' academic performance and ascertains how the scheme can be improved upon in terms of ensuring access to bursaries by students when needed to save them from financial stress.

1.1.3 PURPOSE STATEMENT

Students face various challenges linked to the cost of attending university that affect their ability to pay the cost of education as they lack financial resources. This study

contributes by providing recommendations in Section 5.6 that could improve the NSFAS process and enable students to concentrate on their academic studies without financial stress. The study also investigates how financial assistance received from NSFAS, or a lack thereof, impacts on the students' academic performance and, in the long run, retention and success.

There is a paucity of studies on financial aid issues in South Africa according to the researcher. It is important that this gap be filled, which might be helpful for other researchers interested in and determined to be conducting further research on the same topic. The study could also assist South Africa to improve the level of governance and compliance, and secure more sponsorship for and investment in the scheme.

1.1.4 Research question and sub-questions

The question that underpinned the study was: to what extent has the National Student Financial Aid Scheme (NSFAS) influenced students' enrolment in higher education in a selected university in the Western Cape?

Arising from this question, the sub-questions for the study were:

- What is the impact of NSFAS on students' access to tertiary education?
- What are the challenges that hinder students' access to NSFAS bursaries?
- How does the NSFAS bursary impact on students' academic performance?

1.1.5 Objectives of the study

Given the context discussed, the aim of the study was to determine the impact of NSFAS on students' access to tertiary education and identify factors that inhibit NSFAS from ensuring that students promptly receive information on their funding status.

The study aimed to achieve the following objectives, to:

1. examine the impact of NSFAS on students' access to tertiary education.
2. investigate the challenges that hinders students from accessing NSFAS bursaries.
3. examine the impact of NSFAS on students' academic performance.

1.2 RESEARCH DESIGN AND METHODOLOGY

In the following sub-sections, the research paradigm, population, sample, sampling method, and data collection, analysis, and interpretation methods are discussed.

1.2.1 Research paradigm

To address the fundamental purpose of this study, which was to determine the impact of NSFAS on students' access to tertiary education and to identify factors that inhibit NSFAS from making sure students immediately receive information of their funding status, the positive paradigm was deemed appropriate and adopted for two main reasons. Firstly, this paradigm assumes that reality is objective and measurable and allows the researcher to explain phenomenon of the study using methods that are independent of the researcher and the research instruments. Secondly, the positivist paradigm is suitable for quantitative studies as it separates the researcher's bias from objective reality, an aspect that enhances reliability of the study.

1.2.2 Population, sample, and sampling method

Researchers such as Obokoh, Monday and Ojiako (2016); and Zikmund (1997) refer to a population as the total group of specific population elements that is relevant to particular research. The chosen population should have distinct elements that interest the researcher and from which the sample will be drawn. The population for this research consisted of students from the selected university in the western cape. . Participants from whom data was collected came from five different campuses, namely: Athlone, Bellville, District Six, Mowbray, and Wellington campus.

According to Mbumbo (2015:52), a sample is a smaller representative collection of units from a population used to determine truths about that population. Sampling gives results with known accuracy that can be calculated mathematically. A non-random sample, specifically that of purposive sampling, was used to select a sample of 100 students from each of the five campuses and a total of four (4) financial aid staff who deal directly with NSFAS. To achieve the targeted sample, 1,501 students were contacted via email and other social media platforms such as WhatsApp and Facebook to complete a questionnaire that was designed using Google forms as these could not be hand delivered due to Covid-19 pandemic using a purposeful sampling technique. This method was deemed suitable for the study since potential participants were moderately well informed about the topic and in a position to improve the purpose

of the research as Rule and John (2011) indicated. The technique was also selected since it has been widely used in similar studies and it enables a researcher to reach the targeted sample with ease and in a cost-effective manner (Etikan, Musa & Alkassim, 2016).

1.2.3 Data collection, analysis, and interpretation methods

Data collection was undertaken at all CPUT campuses. Online portal Google forms were used after President Cyril Ramaphosa announced a national lockdown that started in the early hours of Friday, March 27, 2020, due to Covid-19 and everyone was confined to their homes except for urgent medical care, essential supplies or to provide an essential service. Data was, therefore, collected by means of a questionnaire consisting of close-ended questions as it generates greater feedback and ensures that only the intended respondents complete the questionnaire (Leedy & Ormrod, 2005). A questionnaire using a multiple response approach was used to gather empirical data from students and financial aid staff (Obokoh, Monday & Ojiako 2016:114). Maduekwe (2015:8) expresses its usefulness as follows: "This survey instrument is considered the most appropriate when a large volume of information is to be collected from a large number of respondents in a short period of time...". The data collection instrument was referred to the research supervisor for relevant comments and approval before distribution to participants.

Close-ended questionnaires were preferred since they are readily quantifiable, easy to analyse, easy to complete and generate a higher response rate. In addition, they allow for a large volume of data to be collected from a large sample size in a short period of time and at a relatively low cost (Pietersen & Maree, 2007:5). The collected data was analysed using the Statistical Package for Social Sciences 26 (SPSS26) program, which transformed the data recorded in a Microsoft Excel spreadsheet to meet the requisite layout. Table 1.1 below is a summary of how the objectives were derived and methods used to answer the investigative questions.

Table 1.1: Summary of how the objectives were derived and methods used to answer the investigative questions

Research sub-questions	Research Methods	Research Objectives
What is the impact of NSFAS on student's access to tertiary education?	Questionnaire underpinned by descriptive and inferential statistical analysis, literature review.	To examine the impact of NSFAS on student's access to tertiary education
What are the challenges that hinders student's access to NSFAS bursaries?	Questionnaire underpinned by descriptive and inferential statistical analysis, literature review.	To investigate the challenges that hinders students from accessing NSFAS bursaries.
How does the NSFAS bursary impact on students' academic performance?	Questionnaire underpinned by descriptive and inferential statistical analysis, literature review.	To examine the impact of NSFAS on students' academic performance.

1.3 DELINEATION OF THE RESEARCH

According to Simon (2011:2), delimitations are those characteristics that limit the scope and define the boundaries of a study. It is apparent that only a few studies have been conducted on NSFAS disbursement-related issues (Maduekwe, 2015:9). The geographical area of this study is clearly defined as it is about NSFAS and students' access to tertiary education in a selected university in the Western Cape. The study will focus on the selected university in the Cape Metropole. Other institutions of higher learning such as other universities and colleges were not covered in the study. This ensured that the focus was only on a specific and restricted methodology (Collis & Hussey, 2009:128).

1.4 SIGNIFICANCE OF THE STUDY

Financial aid issues in South Africa have not been extensively researched according to the researcher as some authors such as Carlson, 2006 and Abdul-Rahaman et al., 2018 conducted their research outside South Africa, hence their findings may not be applicable to the South African context. Many of the studies did not focus on the impact of NSFAS on students' access to higher education; instead, they investigated varying issues related to NSFAS in general (Steyn & de Villiers, 2005). Other studies conducted (Moll, 2004) did not cover the objectives covered by this study. Consequently, it is important that this gap be filled. The study investigated how financial assistance received from NSFAS, or a lack thereof, impact on the students' academic performance and, in the long run, their retention and success. It will be helpful for other researchers who are interested in and determined to do further research on the same topic. The study could also assist South Africa to improve the level of governance and compliance, and secure more sponsorship for and investment in the scheme.

1.5 LIMITATION AND CONSTRAINTS

A major limitation in this research was the availability of students and financial aid staff to serve as participants. In addition, due to the Covid-19 pandemic, it was difficult to distribute the questionnaire physically to respondents as the country went under national lockdown on March 27, 2020. Also, given that only few studies have been conducted on the impact of NSFAS on students' access to tertiary institution according to the researcher, this study was informed by limited available literature.

An additional limitation was the timeframe available to respondents to complete the questionnaire. This process was challenging as respondents forgot to complete the questionnaire and other participants were inflexible, unreliable or did not really want to participate fully. To address this limitation, sensitive questions were deliberately avoided in designing of the questionnaire. Furthermore, reassurance of confidentiality was emphasised to the respondents about the data provided.

Lastly, as the data was collected from only one selected institution, no representation as to the accuracy and completeness of all the universities drawn by the researcher. This selected institution was used as an indication and for the purpose of this research only.

1.6 ETHICAL CONSIDERATIONS

According to Bryman and Bell (2007:63), the values of ethical considerations have been accumulated as an outcome of analysing the ethical guidelines of five certified social sciences research principles:

- Research participants should not be exposed to harm in any way whatsoever.
- Respect for the dignity of research participants should be prioritised.
- Full consent should be obtained from participants prior to the study.
- Protection of the privacy of research participants has to be ensured.
- Participants should be assured that their responses will be treated as strictly confidential and will not be disclosed without their consent.

As mentioned earlier, it is important to be in no doubt that participants are exclusively educated about the nature of research, the scope, goals, and objectives of the study, as well as the intended actions. According to Busher and James, (2002) participants should be guaranteed that they would remain unidentified during the course of this study to generate a stronger guarantee of privacy. In addition, an approval to conduct the research was obtained from the selected university's Research Ethics Committee (REC) before commencing data collection.

Participants' consent to take part in this study was voluntary, free of any pressure and promises of reimbursement unlikely to arise from their participation. It was further guaranteed that no participant would experience any type of harmful situation or any risk in participating to the study.

A consent letter that advised participants about the nature of the study to be undertaken, the risk involved and participants' right to leave the study at any time, without repercussions was given to participants as suggested by Lapan and Quartaroli (2009:6).

1.7 CONTRIBUTION OF THE RESEARCH

Students face various challenges linked to the cost of attending university, inability to pay the cost of education and lack of access to financial resources. This study could contribute to a better distribution funding to students by providing recommendations that could improve the process and enable students to concentrate on their academic studies without financial stress. The importance of this study lies in its potential to assist policymakers in making informed decisions concerning government financial aid for students in higher education. It could also provide policymakers with the results that inform them about effectiveness of financial aid.

1.8 OUTLINE OF THE STUDY

The study will consist of five chapters, which are described as follows:

Chapter 1: Introduction and problem identification -This chapter provides the background of the study and introduces the research problem, the problem statement, the research objectives, and the research questions.

Chapter 2: Literature review - A comprehensive review of the relevant literature and gaps identified as well as questions that remain unanswered are the focus of this chapter.

Chapter 3: Research methodology - The research design and methodology as well as sampling techniques, data collection method and analysis used to address the objectives of the study are presented in this chapter.

Chapter 4: Analysis of data and discussion of the results - This chapter presents an analysis of the data collected and discusses the results.

Chapter 5: Summary, conclusions, and recommendations: This chapter provides the summary and conclusion of the study as well as its recommendations, limitations, and suggestions for future research.

1.9 SUMMARY

This chapter described the problem statement of the study then followed by the purpose statement. The research question and sub-questions were also outlined. Objective of the study is also included followed by research design and methodology used and after the delineation of the research . The chapter further outlined the significance of the study and limitation and constraints. This was followed by ethical consideration, contribution of the research and the outline of the study.

The next chapter focuses on reviewing the literature on the impact of NSFAS on students' access to tertiary education.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter served as the introduction to the study. The background, problem statement, research aim, research questions and objectives, methodology, literature review, ethical consideration, scope of the study and its significance were discussed. This chapter provides a comprehensive review of the literature on the impact of NSFAS on students' access to tertiary education in the Western Cape. In doing so, the chapter also reviews studies that have been carried out addressing the provision of sufficient and comprehensive financial assistance to students or similar literature about NSFAS disbursements of students' bursaries. The chapter identifies gaps in existing literature concerning issues related to integration of registration and funding data between the scheme and universities. The chapter begins with contextual background information about learning at the higher education level in South Africa before and after 1994. This background mainly focuses on providing the basis as to why the democratic government's transformation process post-1994 and the institutionalisation of the NSFAS to students from disadvantaged background. Further, a brief explanation about challenges facing NSFAS and students at large is provided.

The layout of the chapter is as follows: In section 2.2, the contextual background of higher education in South Africa is discussed. This is followed by definition of NSFAS and its importance to the South African economy in section 2.3. In section 2.4, the perception regarding the impact of NSFAS on student access is discussed then followed by the discussion of favourable outcomes of NSFAS in section 2.5. Section 2.6 outlines prior studies on challenges that hinder students' access to NSFAS bursaries then followed by previous studies on the of impact of NSFAS on students' academic performance in section 2.7. This is followed by the comparative review of students' funding in higher education in section 2.8 then the different government-backed student bursary schemes that are discussed in section 2.9. Theoretical justification for student funding in higher education is outlined in section 2.10 then followed by the gaps identified in reviewing the literature in section 2.11.

2.2 CONTEXTUAL BACKGROUND OF HIGHER EDUCATION IN SOUTH AFRICA

Higher Education (HE) develops an individual through scholarship by providing necessary knowledge and skills that lead to subsequent job opportunities. This section first demonstrates and provides a brief history of higher education before 1994 and, thereafter, how the democratic government has transformed higher education post-1994.

2.2.1 Higher education before 1994

Apartheid policies made under the leadership of the National Party government have shaped the South African higher education system and all aspects of South African life (Bunting, 2006:35). In 1984, the apartheid government introduced a new constitution in the Republic of South Africa, which established division in the education sector (Bunting, 2006:36). During this period, the sector had 29 higher education institutions, of which 19 were dedicated to only Whites, two to Coloured people, another two for Indians and six for the exclusive use of Africans (Bunting, 2006:36). The party in power during this time placed legal constraints to prevent admission of other races in those designated institutions. This placed the South African education in a highly fragmented manner for people living in the country.

In terms of funding between these institutions, there were major differences between those institutions designated for only Whites and those designated for Africans (Department of Education and Training 2009; Dison, Walker & McLean, 2008:3). State funding for education was allocated according to the apartheid policy of racial classification, which limited many Africans from furthering studies of their choice. As a result, more White people were educated and skilled, and subsequently held well-paid jobs compared with under-skilled Black people, who were at the lower end of the employment ladder (Leibbrandt, Woolard, McEwen & Koep, 2009:9; Statistics South Africa, 2000).

2.2.2 Higher education post 1994

Jansen and Taylor (2003:2) state that the new democratic government inherited the most unequal society in the world, which provides slow progress in balancing the imbalances of the past. As a result, the new democratic government has been on a mission to transform the segregated education systems into a new, democratic, and equal system that would provide access and justice to all citizens in South Africa (Jansen & Taylor, 2003:2). The end of apartheid in South Africa was acclaimed

globally as a significant victory for democracy and human rights (Jansen & Taylor, 2003:5). The Department of Higher Education and Training became the only department governing higher education and captured the dual goals in its mission statement:

“Our vision is of a South Africa in which all people have equal access to lifelong education and training opportunities which will contribute towards improving the quality of life and build a peaceful, prosperous and democratic society.” (DoE, 1996).

The mission statement has supported the aim of the Constitution of the Republic of South Africa. The Constitution aimed to inform the responsibility of government and gave direction towards specific issues such as the right to basic education for all, plus adult basic learning, as well as further education and training. This right has resulted in increasing numbers of previously underprivileged students entering higher education and contributed to an increase in social interest and needs, including financial assistance of those less privileged. Therefore, it has to be addressed as a matter of urgency (Department of Education, 1997:4).

2.3 DEFINITION OF NSFAS AND ITS IMPORTANCE TO THE SOUTH AFRICAN ECONOMY

In the following subsections the definition and legislative framework and the importance of NSFAS will be discussed. .

2.3.1 Definition and legislative framework of NSFAS

As indicated in the previous section, NSFAS is the government’s funding model that assists financially needy students to study at public higher education institutions in South Africa. It should be emphasised that NSFAS does not fund private institutions, only public universities, universities of technology, public technical vocational education, and training (TVET) colleges, and community education and training colleges (DHET, 2012; 2017). Its mission statement is “to impact on South Africa’s racially skewed student, diploma and graduate populations by providing a sustainable financial aid system that enables academically deserving and financially needy students to meet their own and South Africa’s development needs” (NSFS, 1999).

This mission statement reflects the nature of the services the scheme offers as it operates within constitutional, policy and legislative frameworks that were

implemented at the start of the transformation processes of the new democratic Republic of South Africa. The NSFAS is a government agency that administers funds to assist South African financially needy students to pay for their higher education studies (Mosikari & Marivate, 2013). The legislative framework that guides NSFAS is based on:

- The Bill of Rights of the Constitution of the Republic of South Africa Act (108 of 1996), Section 29 (1) (a);
- The White Paper (Notice 1196 of 1997);
- The Higher Education Act (101 of 1997);
- The Public Financial Management Act 1 of 1999);
- The National Student Financial Aid Scheme Act (56 of 1999);
- The National Credit Act (2005); and
- The Department of Education's (DoE) 1998 Policy Framework (National Student Financial Aid Scheme, 2000).

The policy framework was set up in 1998 to upgrade the White Paper (1997), clarify the objectives and arrange operations of NSFAS (Report of the Ministerial Committee on the Review of the National Student Financial Aid Scheme, 2016).

2.3.2 Importance of NSFAS

The inception of the new government saw many reforms in the education system. Access to higher education is made simpler by providing financial aid in for all irrespective of colour or gender, equity and enrolment issues are likewise tended to (Mosikari & Marivate, 2013:555). There is a need for NSFAS to expand the support rate in advanced education and to widen the social base of higher education by expanding access to this sector for workers and experts in pursuit of competency, efficiency, and re-skilling and also for grown-up students who were previously denied access. According to NSFAS Annual Report (2016), 25 years after the scheme was established, South Africa is proud to speak of a student scheme that has provided over 1,700,533 awards to disadvantaged students. Mosikari and Marivate (2013:356) state that education is the establishment of economic development of the country and governments all over the world are under pressure trying to find the best solutions of assisting students in higher education. The South African government spends millions of rand per annum in financial aid to students in higher education, hoping to address

the imbalance of black and white graduates caused by the apartheid government and the education system before 1994. The imbalances resulted in the majority being poor and most black students unable to enrol in institutions of higher learning due to lack of funds. The establishment of a financial aid scheme to assist the majority of disadvantaged students is imperative. The main aim of this study was to establish the impact of student financial aid on enrolment in the South African higher education system.

The need for students' financial aid in higher education is a serious problem in both developed and developing countries. As soon as this need is satisfied, it will result in a better educated population that will cultivate civic participation, a stable democracy and balanced social life. Higher education has become a dominant factor in preparing students with robust skills needed to adapt to changing job requirements within their fields of study (Winter-Ember & Wirtz, 2002:4). NSFAS has helped students to improve their quality of life and address major social and global challenges. Furthermore, enrolment in higher education institutions is broadly defined as one of key drivers of growth performance, prosperity, and competitiveness (de Villiers et al. (2013). Access to higher education gives a person an opportunity to succeed in today's global economy. It also provides students with various programmes aimed at preparing them for different economic sectors, helping them to stay and progress in the labour market for long (Yadav, Bharadwaj & Pal, 2011). These programmes make a difference for labour market outcomes and keep pace with changes in the global economy and changes in the innovation process (Ziderman, 2005:5). NSFAS funding might have impacted positively not only on student access, however also in responding to the human resource development needs of the nation.

2.4 PERCEPTION REGARDING THE IMPACT OF NSFAS ON STUDENT ACCESS

Recognising the growing problem of student debt and inadequate access to higher education faced by disadvantaged students, the South African government established the NSFAS as an income-contingent funding arrangement in 1996, initially to be administered through the then Tertiary Education Fund of South Africa (TEFSA). NSFAS was formally established by statute in 1999, with the ratification of the National Student Financial Aid Scheme Act (56 of 1999), which fully incorporated TEFSA into NSFAS. This Act provided for the management, governance, and administration of the

NSFAS; granting of loans and bursaries to eligible students at public higher education institutions; the administration of such loans and bursaries; the recovery of loans and the repeal of the Provision of Special Funds for Tertiary Education and Training Act, 1993 (NSFAS Act, 1999).

NFSAS was established to redress past discrimination and ensure that those that were discriminated against in the past are now represented and there is equal access to South African institutions of higher learning (Mdepa & Tshiwula, 2012:24). After the introduction of NSFAS, the number of African students started to increase in this sector.

In the past, NSFAS used to allocate funds to universities and TVET colleges based on the racial profile of students and the estimated full cost of the study in each institution. Under this model, institutions used to manage the funds including the applications for loans and grants. This initiative has introduced a substantial number of challenges faced by both the students, universities, and the scheme. The capacity of NSFAS to target its funds selectively has been compromised by this business model. First-year students were obliged to apply for funding for each institution they intend to study at and those that are returning students were obliged to re-apply for funding each year, thereby making things poor. Under this model, some universities decided to divide NSFAS allocations amongst all eligible students, which resulted in students having not enough funds to finance their studies and pay for accommodation.

Not having enough allowances is stressful to many students due to lack of funds to provide for essential living expenses and also the fact that one has to fight and work hard to get financial resources, hence the negative impact on their studies (Kossey & Ishengoma, 2017:76). According to Machika and Johnson (2015:169), students from disadvantaged backgrounds perform poorly in their studies because of the negative impact arising from not having enough fund to afford food and other costs of education. This is the most important reason for poor academic development and a high dropout rate in universities (Jones et al., 2008:6).

It ought to be a dream come true and a very crucial opportunity for students from disadvantaged backgrounds to access higher education and training institutions since it enables them to change their socio-economic statuses personally and improve on their families' livelihoods. However, these students find difficulties in achieving this

goal because of the economic circumstances under which they live that have influenced their capacity to succeed academically (Machika & Johnson, 2015:167).

Before the former president of South Africa, Mr Jacob Zuma, announced fee-free higher education from the 2018 academic year, NSFAS used to primarily provide only loans to students. These loans depended on the success of each student and were determined by their pass rate. For instance, if the pass rate of a student for the current year is 100%, 40% will be converted to a bursary, for 75% pass rate, 30% will be converted and for a 50% pass rate, only 20% will be converted (De Villiers, Van Wyk & Der Berg, 2013:10). Furthermore, after a student has completed the course and left the institution, NSFAS provides favourable loan repayment terms to the student by giving a non-payment period of 12 months (de Villiers, 2017:10).

2.5 FAVOURABLE OUTCOMES OF NSFAS

NSFAS has played a major role in rectifying and turning around what happened before within the higher education sector and the country at large. Admission to higher education has been made possible for many students who would otherwise have been unable to pay for the high costs of university education. The scheme has been remarkably successful in terms of assisting a number of students until graduation with their first qualification (de Villiers, et al., 2013:2). The scheme has made substantial reforms since its inception to meet its mandate as the number of beneficiaries increases every yearly. According to de Villiers et al. (2013:5), NSFAS has assisted a minimum of 88,122 students on average each year. NSFAS's recent Annual Report (2018/19) confirms a significant increase in funding to financially eligible students since the establishment of the fund, and highlights great increase, especially since 2015.

A growing body of literature also suggests that NSFAS funding has impacted positively on student access, progression and success in post-school education and training (PSET) (de Villiers et al, 2013; National Treasury PER Cohort Study, 2016; DHET, 2016). NSFAS is now preoccupied with assessing and demonstrating beyond academic outcomes the patterns of labour market participation of its beneficiaries. NSFAS facilitated access to DHET for a large, diverse group of beneficiaries, with an emphasis on African and female beneficiaries.

There have also been increases in the total number of students funded per year. In 2018/19, 604,114 students were funded, which is an increase of 14% from 451,507 students funded in the 2017/18 financial year. The extent of growth in funding over the last 25 years is illustrated by the fact that in 1991 NSFAS (then TEFSA) funded 7 240 students (NSFAS Annual Report, 2017/18). It is, therefore, clear that both in terms of the size of funding support and the number of students reached, NSFAS is a core public funding mechanism or, as Borhat and Pillay (2017:2) assert: “one of the most significant interventions affecting access to higher education for the poor and disadvantaged”. Over the next few years, the government has been mandated to spend billions of rands to ensure that all deserving students from poor and working-class families are able to access higher education and training and obtain their qualifications at universities and TVET colleges (NSFAS Annual Report, 2018/19).

2.6 PRIOR STUDIES ON CHALLENGES THAT HINDER STUDENTS’ ACCESS TO NSFAS BURSARIES

Since its inception, NSFAS has been facing major challenges despite of its successes (Machika & Johnson, 2015:169). Many authors such as de Villiers et al. (2013); Mdepa and Tshiwula (2012); and Machika and Johnson (2016) have identified these major challenges and categorised them as follows: underfunded students, high dropout and low graduate rates, top slicing, means test, management issues, and loan/bursary administration and disbursements. These challenges are illustrated throughout the study.

In 2018, the most students went unfunded for periods of up to eight months, causing considerable hardship and disruption in the higher education sector. Critical governance processes failed, a climate of non-compliance to statutory reporting was prevalent, decentralised and disaggregated decision-making prevailed, an unfavourable organisational climate, and culture of entitlement stymied service delivery (NSFAS Annual Report, 2018/19).

2.6.1 Underfunding

Students enrolled at higher education institutions for different qualifications have been experiencing major obstacles due to funding shortfalls faced by NSFAS (Matukane & Bronkhorst, 2017:11). This has a negative impact on students’ progress as it represents a financial shortfall in their academic resources. NSFAS receives its major

funding from government, and, in some circumstances, the scheme receives less than what it requested and has to adjust its budget to accommodate shortages (Mosikari & Marivate, 2013)..

2.6.2 High dropout, and low graduation rates

According to Machika and Johnson (2015:168), there is high dropout and low graduation rates among recipients of financial assistance, and this is because of the impact of poverty-associated factors. The report of the Ministerial Committee on the Review NSFAS (2009) indicated that only 19% (125,210) of NSFAS-funded students had graduated, while 48% (316,320) had dropped out or did not complete their studies. Furthermore, the report shows that the remaining 33% (217,470) of NSFAS students are still enrolled for their qualifications. In 2017, a new funding model was introduced by NSFAS aimed at addressing the high dropout rate among poor students from tertiary institutions. This is still in process and the Ministerial Committee is yet to provide new figures in this regard (Naidoo & McKay, 2018).

2.6.3 Top slicing

The Commission of Enquiry into Higher Education and Training (2017) describes top slicing as a mechanism that was introduced by many universities due to insufficient NSFAS funding. This mechanism is used where allocation made to universities is spread across all qualifying students in order to increase the number of funded students each academic year (Ministerial Committee on the Review of the National Student Financial Aid Scheme, 2009). This would result in students not receiving the full recommended amount by the NSFAS means test and, therefore, students are not assisted with what they really need except the basic tuition and accommodation fees. The top slicing mechanism prevents students from receiving allowances for textbooks and study material, food and living expenses, and travelling (Machika & Johnson, 2016).

2.6.4 Means test

The means test refers to calculations of gross family income with applicants qualifying if their income is below a certain predetermined maximum. This is seen positively as it assists to identify students who qualify for financial aid (de Villiers et al., 2013:7). According to NSFAS (2016), this is considered as a legitimate tool that is used by many institutions to identify no-income or low-income families who need government

support. Monyane (2010:21) regards the means test as a tool or mechanism that is unreliable as it excludes parents earning above R122,000 per annum, the middle class. The author's argument is that these parents still cannot afford to pay for their children's university fees. The report submitted by the Commission of Enquiry (2017) states that the means test currently active is outdated, inappropriate, inequitable and requires urgent evaluation, all stakeholder accepted this as it would enable students who belong to the missing middle class to qualify for funding.

2.6.5 Governance and management issues

There has been number of concerns about the way NSFAS operates and its public administration (Commission of Enquiry into Higher Education and Training, 2017:236). Many students have been complaining about not being able to contact NSFAS easily in connection with their funding status. It is apparent that the standard of governance and management of NSFAS is below expectation, as it is a public entity operating in terms of its own legislation and Public Finance Management Act No. 1 of 1999. (Ministerial Committee on the Review of NSFAS, 2009). There has been a lack of leadership, management and major capacity constraint affecting NSFAS that is related to human capital at the NSFAS Head Office due to the absence of qualified staff and various senior and middle management positions that remain vacant (NSFAS Annual Report, 2014). As a result, the head office is struggling resolve these challenges effectively which causes the unrest on student populace.

2.6.6 The impact of NSFAS on students' academic performance

Students are the main assets of universities. Students' academic performance plays an important role in producing the best quality graduates who will become great leaders and a human resource for the country, therefore becoming responsible for the country's economic and social development (Reier, 2009)).The academic performance of students in universities should be a concern not only to the administrators and educators, however also to corporations in the labour market. "Academic achievement is one of the main factors considered by the employer in recruiting workers, especially new graduates. Thus, students have to place the greatest effort in their studies to obtain good grades in order to fulfil the employer's demands" (Yadav, Bharadwaj & Pal, 2011). This study is aimed at determining the factors that contribute to academic achievement comparing the pass rate between off-

campus and on-campus students on their involvement in non-academic activities and academic activities.

2.6.7 Bursary administration and disbursements

The slow outcome of applications for funding is the most stressful challenge for students as they do not know whether they are accepted for funding or not. The other issue that has been raised by the Commission of Inquiry (2017) is that students are rejected for bursaries by NSFAS without being given proper reasons as to why such a decision was made. In the past few years, students have been receiving their allowances late into the year, which result in a negative impact on their academic development and performance (Sekhukhune, 2008:59). A large majority of the students are at a disadvantage as they need the allowances to study effectively during the academic year. These are the most common challenges facing the NSFAS. These challenges affect student's well-being and their emotional state as well (Lewin & Mawoyo, 2014; Machika & Johnson, 2015). According to Sekhukhune (2008:), a number of students have decided to terminate their studies, this was since the scheme did not pay all the outstanding fees. Mdepa and Tshiwula (2012:24) also stress the fact that bursaries offered by NSFAS do not cover living expenses, and access and academic development is still delayed as they stay far from campuses. According to Matukane and Bronkhorst (2017:11), it is apparent that NSFAS has a poor administrative system and that the scheme should ensure that they engage with universities and students in making sure that the rules are clearly understood. It is plausible that progress is being made in the implementation of measures of redressing these issues. However, the reality is still far from the ideal.

2.7 PREVIOUS STUDIES ON THE OF IMPACT OF NSFAS ON STUDENTS' ACADEMIC PERFORMANCE

The 2015/16 #FeesMustFall protests in South Africa brought the issue of inadequate tertiary student funding into the public eye, with students claiming they are being excluded from higher education since they lack the necessary funding. However, it is unclear how academic achievement and availability of student funding relate to one another (Naidoo & McKay, 2019:1). Abdul-Rahaman et al. (2018:84) also argue that while some studies concluded that financial aid assisted students do better

academically, others did not find a substantial favourable influence of funding on students' academic performance.

Naidoo and McKay (2019:5) further note that there is no correlation between students receiving bursaries and successfully completing their degrees (throughput). Additionally, it is argued there is no connection between students' academic achievement and the amount of bursary awarded. However, academic merit-based bursaries produced the best results. An opposite point of view from Coonrod (2008:26) has it that giving a student financial aid will not immediately enhance the student's ability to perform well. However, an argument can be made that additional funding will inspire and urge a student to put forth greater effort since they will understand that it is more of a privilege than a natural right. Furthermore, the funding might free up time that would have been spent working to secure funds for university fees.

It is also notable that of the 50% of students dropping out in South Africa, many are doing so due to financial reasons (Styan, 2014:5). It is argued that students are excluded from the institutions of higher learning due to insufficient funds in which it hinders them from performing well academically (Styan, 2014). However, Naidoo and McKay (2019:167) argue that only the academic merit bursaries have a favourable correlation between student funding and academic performance and that funding given based on "neediness" criterion does not correlate with student achievement.

Students who get need-based financial aid do not perform worse academically (as judged by Grade Point Average) than students who do not; in fact, need-based aid recipients have greater levels of academic accomplishment than students who do not receive need-based financial aid (Carlson, 2006:14). Peculea and Dogaru (2016:828) also argue that financial aid to students lead to an increase in enrolment rates, improvement of academic performance and decrease in dropout rates in a notable and large scale.

Findings of other research contradict the views expressed in the preceding paragraph. Douglass and Gregg (2012) researched how financial aid affected students' grade point averages at academic institutions. They found that students who received Pell Grants studied one hour more on average than their peers, however they still had lower grades. Also, when demographic factors and earlier academic success were considered and statistical controls were used, studies in other contexts found no

statistically significant association between financial aid and academic performance (Hoffman, 2002:5; Scott-Clayton, 2011:8).

2.8 COMPARATIVE REVIEW OF STUDENTS' FUNDING IN HIGHER EDUCATION

This section provides an overview of the skills support frameworks of two countries, Brazil, and Botswana. The legislative systems of these countries are chosen for review for two reasons. To begin with, they, like South Africa, have sections of their population in the low socio-economic bracket. Secondly, several aspects of their frameworks are similar to the framework used by NSFAS (Dibela, 2018:28). The review was undertaken to learn from institutions performing similar functions as NSFAS. The Fundo de Financiamento ao Estudante do Ensino Superior, a Brazilian student funding system, was established in 1999 to replace a previous loan scheme (Maculan, 2006:2). Higher education in Brazil is regarded as a tool for achieving social mobility. Most Brazilian households, like those in South Africa, cannot afford to send their children to tertiary institutions. As a result, requests were made to the government to devise systems that would allow those who could not afford tertiary education access to higher education facilities (Romanelli, 1999:6). In response to the growing number of private institutions in Brazil, the government boosted public financing to counteract them (McCowan, 2004:1).

Financial aid for students in Botswana is called the Botswana Student Placement and Welfare Fund (BSPW), which is a loan scheme administered by the Department of Tertiary Education Financing (DTEF), formerly known as the Department of Student Placement and Welfare (DSPW) (Botlhale, 2015:652). The scheme, which was established in 1995, is responsible for providing financial assistance to pre-service and higher education and training students to generate the technical and professional human resource base required by the entire economy in the form of grants and loans (Botlhale, 2015:652). The scheme benefits students who are enrolled in both public and private institutions (Weeks, 2009:8). This is not the case in South Africa, which exclusively provides funding to students who are enrolled at public universities. The Botswanan scheme also covers students' tuition and living expenses as it is with NSFAS (Mokgwathi, 2010:427).

2.9 GOVERNMENT-BACKED STUDENT BURSARY SCHEMES

Over the years, university systems all over the world have expanded greatly and rapidly. This development has given many students the opportunity to obtain and benefit from a university education, as seen by the continually rising proportion of the youth enrolled in tertiary education (Ziderman, 2005:1). However, not all socio-economic segments in the population have had an equal opportunity to benefit from these expanding opportunities due to higher costs of tuition, access, and equity in higher education (Mosikari & Marivate, 2013:555).

Financing of higher education has remained at the forefront of higher education discussions for decades now, especially in developing countries (World Bank, 2006, 2010; Karkkainen, 2006; UNESCO, 2011; Dunga, 2013). Most developed countries such as United States, Britain, and Germany, among others, have managed to come up with funding models that tend to satisfy the needs of both equity proponents and contenders (OECD, 2014). It is argued that that higher education benefits the individual more than it benefits anyone else and with the free movement of labour in the modern global economy, there is no explanation for any government to pay for such investment, which may end up in a different country anyway (Weber, 2005).

An overview of roles bursary schemes can play in easing financial barriers to accessing tertiary education in four countries are discussed in this section. The four countries are: Australia, Kenya, Namibia, and Germany. The decision to review these countries around the world is grounded in similarities some of their frameworks bear to the NSFAS' framework, where bursary schemes and free education are in place.

2.9.1 Australia

Financial aid in Australia legislative is called the Higher Education Contribution Scheme or Higher Education Loan Programme (HECS/HELP) (Woodhall, 2007). The Australian Tax Authority (ATO), which collects the income contingent repayments, offers students the option of deferring payments until after graduation in exchange for a 25% decrease in tuition fees (Woodhall, 2007). As a result, the government finances student loans for tertiary education and collects the payback once the students graduate and once a certain income criterion has been reached (Pillay, 2010). Other than state funding, public universities also generate revenue from royalties, trademarks and licenses, consultancy and contract research, investments, tuition fees (continuing education fees, overseas student's fees, and local student's fees), among

other sources (Pillay, 2010). Similar to the NSFAS legislative framework in South Africa, the government is in charge of disbursing the loans and requesting repayment once students are employed.

2.9.2 Kenya

Kenya began experimenting with free higher education in 1963, paying for tuition, living expenses for students, buildings for pedagogical and research infrastructure, as well as staff salaries. The state was seen to be able to guarantee equality of opportunity most effectively through free provision (Ngolovoi, 2008). Additionally, free higher education in Kenya was founded on unfair socioeconomic arrangements, which had the effect of reproducing and enforcing injustices. A reflection of the distorted missionary and colonial educational patterns is the uneven distribution of (high quality) education and participation rates (Limukii & Mualuko: 2012:5). In terms of funding, public funds pay for all university-related expenses as well as allowances for the comfort of students. Given the small student population, free higher education was certainly within reach. Kenya had 571 undergraduate, graduate, and diploma students enrolled in universities in 1964 (Wango, 2006). By 1980, the number was 5,411. Enrolments began to rapidly increase towards the middle of the 1980s, and by 1990, there were 26,092 students enrolled. Enrolments were rising, however the economy was deteriorating, and universities had a severe lack of funding, so Kenyan universities essentially ceased to operate as vibrant knowledge institutions (Ngolovoi, 2008). According to Langa et al. (2016), the experiences with free higher education of Kenya capture the dream of many African countries for modern political economies and just social order with equal opportunities.

2.9.3 Namibia

In Namibia, a government-sponsored loan and bursary programme called the Namibia Students' Financial Assistance Fund (NSFAF) offers loans to undergraduate students to help cover the cost of their tertiary education. The Ministry of Higher Education oversees its administration, which began in 1995 (Kaulinge, 2011). Only Namibian students in need attending accredited institutions of higher learning are eligible for study loans from NSFAF and is offered on a full-time basis only. Such aid covers tuition, books, registration fees, and other relevant educational costs at rates that are periodically determined and approved by the NSFAF Board. Only students whose

combined parental/guardian total household income is below N\$150,000 (R149,678.14) per annum (basic salary plus allowances and other benefits minus income tax and pension fund contributions) qualify for NSFAF (Tshabangu, Matakala & Zulu, 2013). Students are only required to make repayments to the study loan when they are employed and earning a threshold salary or are in breach of contract, among other circumstances.

2.9.4 Germany

Germany formally abolished all undergraduate tuition costs at public universities in 2014, except for a few administrative charges. Following substantial student protests and, in several states, a change in government to Social Democratic and Green coalitions, all states abolished tuition fees. Since Germany needs competent labour, students benefit from this reality. However, in most cases, governments ensured that universities were compensated for their loss of revenue by temporarily increasing funding for higher education (Garritzmann, 2015).

2.10 THEORETICAL JUSTIFICATION FOR STUDENT FUNDING IN HIGHER EDUCATION

Investment in education follows the cost-benefit approach in that the economic or social benefits of educational investment cannot be quantified or measured directly with the immediate cost of investment in view of the net gain to the individual and the society. According to van der Pol, Bos, and Romijn (2017:27), in cost-benefit analysis (CBA) practices, benefits and costs are added irrespective of who gains or loses, which disregard basic economic principles, such as declining marginal utility of income, or inequality aversion. The Hicks-Kaldor compensation principle provides a theoretical base for this practice (Harberger, 1978:5). Hicks-Kaldor compensation implies that the net gain from a project or policy measure are sufficient to potentially compensate the losers without making anyone worse off. If compensation is costless and CBA has a positive outcome or has a benefit-cost ratio exceeding 1, there are net welfare gains from a public project or policy measure for society as a whole (van der Pol et al., 2017).

From a theoretical standpoint, education is a cost-benefit investment in oneself as well as by the government. Therefore, benefits accrue to both society and the individual. It supplies society with essential human capital, fosters democracy, and other social

goals, the majority of which are difficult to quantify. Furthermore, education increases each individual's lifetime earnings. It also gives people and their families the chance to get out of poverty (Weeks, 2009:131).

Based on the context just discussed and the fact that this study investigated the impact of NSFAS on students' access to tertiary education, Sen's (1988:10) capability approach is also used as a theoretical framework. This methodology was regarded the most fitting hypothesis to use as it centres on the ethical criticalness of a person's capacities to accomplish the sort of life they have motivation to esteem and succeed (Sen, 1988:12). Furthermore, Sen's capability approach focuses mostly on inequality and poverty as these two concepts are implicit in this study. To this end, a capability approach theory is concerned with the development and well-being of human beings. Robeyns (2003:63) also states that a capability approach is an effective tool to assess people's overall well-being and societal engagement. Therefore, this approach was used to investigate the impact of NSFAS on students' access to tertiary education and how the administration and distribution of funds to financially needy students affected their academic performance. A list of five capabilities based on Erikson's (1993) list was decided on as they pertained specifically to the context and lived experiences of the students who received financial assistance from NSFAS and those who did not receive financial assistance. The five capabilities are indicated as follows:

- **The right to education:** Every South African has the privilege to education as stipulated in the Bill of Rights of the nation's Constitution and it was one of the reasons NSFAS was introduced at higher education institutions.
- **Economic status:** NSFAS is intended for students who are financially needy, that is, students who originate from low socio-economic backgrounds who are unable to pay for the significant expenses related with higher education studies.
- **Physical health:** Being in adequate physical prosperity means that one needs to have good nutrition and funds from NSFAS are supposed to assist students.
- **Emotional and mental health:** Emotional and mental health is vital for successful student learning. When students have to worry about their financial situation, they cannot function optimally. In addition, it has a direct impact on tuition classes through increased absenteeism and reduced productivity and concentration. NSFAs was established to improve emotional and mental health of students.

- **Improvement of quality of life:** Financially needy students need university education to improve in order to secure better jobs and compensation. NSFAS helps them to accomplish this goal.

Post-1994 and under the new democratic South Africa, every child or person has the right to education and needs to be in good physical and emotional/mental health to succeed in their studies. Once they are able to acquire the requisite education, they are in a better position to take up various positions in society and contribute to the development of the country (Bothale, 2015:649). In view of this, the government has endeavoured to put structures in place in an attempt to improve access to university education by making systemic changes in admissions policies and providing more financial aid to academically deserving, but financially needy students (Matukane & Bronkhorst, 2017:6).

2.10.1 Share performance from student-faculty interaction

Informal after-class interaction between students and faculty has been acclaimed by many researchers as an important factor contributing to students' intellectual, social, and personal development during their undergraduate education (Chickering & McCormic, 1973; Pascarella, 1980). Researchers in this area have linked frequent and high-quality student/faculty interaction positively with students' intellectual, social and emotional development (Endo & Harpel, 1982; Pascarella, 1980). Feldman and Newcomb (1969) summarise a series of studies on the sources of influence in students' lives. Their overall conclusion was that students considered faculty members to be more influential than their peers in the areas of intellectual development and occupational and career choices. There is a general consensus that faculty members act as a powerful force to shape students' intellectual and academic abilities. Students' frequent faculty/student interaction has also been positively related with students' general satisfaction with their total undergraduate education (Astin, 1978; Endo & Harpel, 1982; Pascarella, 1980). According to Astin (1978), frequent interaction with faculty is more strongly related to satisfaction with college than any other type of involvement or, indeed, any other student or institutional characteristic. Students who interact frequently with faculty members are more likely than other students to express satisfaction with all aspects of their institutional experience, including student friendships, variety of courses, intellectual environment, and even the administration of the institution.

Studies in the area of student/faculty informal interaction can be grouped into two major areas. The first is research with emphasis on the impact of the relationship on students' outcomes such as intellectual, social, and personal development and, secondly, studies in which commuters and resident students are compared on their general interactions with faculty members (Pascarella, 1980). This section of the review of literature is organised into these two areas.

2.10.2 Influence on knowledge or preference of students

The matter of student funding has been addressed from a number of viewpoints. Disciplines such as urban development and planning, geography and funding policies are concerned with issues associated with student community, as it has been witnessed that a high concentration of student residents in specific areas has effects for these urban neighbourhoods (Sabri & Ludin, 2009; Smith & Denholm, 2006) for instance, on the social cohesion. Other matters are related to questions on how to adapt students and what is appropriate funding for these provisional residents. The type of funding, the standard and the architectural design are important issues in this context. To understand what students consider suitable and satisfactory funding, it is important to investigate their points of view. Despite reluctance to outsource student funding operations, it is evident nationwide that funding facilities are in major disrepair and virtually obsolete when faced with the increasing needs of today's college students. On-campus dormitories built in the 1950s and 1960s are the most predominant funding option for students, which typically consist of single rooms funding two students each in long corridors that do not provide much, if any, privacy. Additionally, most traditional dormitories do not have the highly desired amenities and building infrastructure that students and their parents now see as essential to the university experience. Such amenities and infrastructure include fitness and recreation centres, wireless networking capabilities, kitchens, and single bedrooms with private bathrooms. Universities continue to find themselves competing with off-campus private funding market as it caters to student preferences, offers continual supply of appealing amenities and is often close enough to campuses to allow for a reasonable commute to classes (Survey Unit, 2008).

Furthermore, a shortage of student funding exists nationwide as the majority of university students at the nation's largest public institutions live off-campus (Amole, 2009; Musilm et al., 2011; Turley & Wodtke, 2010). With increasing enrolments and

many universities reserving on-campus beds for first-year students and upper-class students are often forced into the local communities where there is either not enough local funding to meet the demand or inadequate funding that meets the local municipality's safety standards to be considered eligible for student occupancy (Turley & Wodtke, 2010). In order to accommodate more students and attract them to campus, universities are developing new funding facilities. However, it is important to remember that constructing new on-campus student funding can be cost prohibitive to many universities.

2.10.3 Access to tertiary education in all network zones

There are little and limited networking settings around the university with less configured hotspots, which reduces access of students to all network zones. A demographic characteristic that significantly predicts a higher possibility of living off-campus is male gender. Significant positive reasons for students intending to live off-campus are: (a) ability to cook meals, (b) length of lease/contract, (c) proximity to campus/town, (d) parking accommodation, (e) ability to live with or near friends, and (f) a private bathroom. Significant negative significant predictors for students' preference to live off-campus the next year included: (a) the ability to be on a dining plan, (b) leadership opportunities, (c) academic support in teaching and learning available, (d) high-speed internet options, (e) adequate living space (f) social atmosphere (Muslim et al., 2012:603). Academic achievement is not significantly influential in students' living environment of a more uncertain nature. Muslim et al. (2012) report that academic achievement of off-campus students is not influenced by the environment although living off-campus is said to be more challenging than staying on campus.

2.10.4 Access to tertiary education prior the introduction of NSFAS

The majority of students enrolled in higher education institutions during the previous administration (before 1994) were White. For instance, only 12.5% of students were black in 1980, while 74.8% of students were white (de Villiers, 1996:359). A concerted attempt was made to increase the number of students of "colour" attending the institutions of higher learning after the first democratic election in 1994. However, the expense of attending tertiary education has significantly increased over time, making it difficult for many people, particularly the poor, to afford to do so. The real state

appropriation (subsidy) per student gradually reduced, which was one of the issues that higher education institutions ran with. Tertiary institutions raised tuition costs above the inflation rate to balance their budgets, which made it harder for the poor to afford higher education (de Villiers, 2013:1). Consequently, efforts were made specifically to lower the cost of higher education for the underprivileged. One such endeavour was the launch of the National Student Financial Aid Scheme (Mosikari & Marivate, 2013).

Between 1971 and 1987 the number of weighted full-time students enrolled in institutions of higher education was 183,604 (Steyn & de Villiers, 2007:4). During this period, social inclusion of various groups in higher education, especially those from underprivileged backgrounds, did not appear to be valued by all higher education institutions in South Africa. As a result, access and widening participation were viewed as problematic and difficult to sustain since they involved students from poor and under-represented social backgrounds (Steyn & de Villiers, 2009). The majority of previously underprivileged Black South Africans have not received tangible advantages from efforts to change the higher education policy in terms of access, equity, or participation in higher education (Zimdars & Moore 2020).

2.10.5 Access to tertiary education after the introduction of NSFAS

Since South Africa began its transition to democracy in the early 1990s, the issue of unpaid student loans has threatened to put some higher education institutions in a position where they would be unable to continue operating. Some mechanism had to be put in place to help especially students from previously disadvantaged communities (de Villiers, van Wyk & van der Berg, 2013). The provision of financial aid to needy students was seen as something that would impact on the racial skewness in access to higher education.

Access to tertiary education started to increase when NSFAS was introduced as the number of weighted full-time equivalent students enrolled in institutions of higher education increased by 141.3% (from 183,604 to 442,962) between 1987 and 2003 (Steyn & de Villiers 2007:4). NSFAS's first allocation by the South African government was made in 1995, during this time, the need for financial assistance was substantial as more students were gaining access to tertiary education and there was no way that programme could supply sufficient funds. For instance, in 1996 223,000 students applied for funding to the scheme, however, only 70,000 could be assisted (de Villiers et.al., 2013). As NSFAS receives funding from organs of state, local and international donors, the number of allocations increased and the number of students assisted by the scheme increased tremendously (Sokhweba et al., 2021:201).

2.10.6 Higher Education and Training progress to date

In March 2013, the Minister of Higher Education and Training issued a Commencement Notice in Gazette No. 36322 giving effect to Section 11 and part of Section 12 of the Further Education and Training Colleges Amendment Act, 2012 (Act No. 3 of 2012). This meant that the management of Principals and Deputy Principals would be handled by the Minister of DHET, although all the funding allocations related to these posts were still located within Provincial Education Departments. Cock (2017:41) state that to date all Universities and TVET College Principals, Deputy Principals, lecturers and all other personnel nationally, forming part of the transgression have received transfer letters confirming their transfer to the DHET. Cock (2017:43) further state that it should be stressed that the list of functions and posts was submitted by the Provincial Education Departments in the process of identifying persons who will be transferred with the posts was finalised. After all

appointment letters had been received, management of the appointments and maintenance of TVET College governance structures started to fully reside with the Minister and DHET.

2.11 GAPS IDENTIFIED IN REVIEWING THE LITERATURE

From the literature review in this chapter, the following research gaps have been identified:

- Most of the studies reviewed (Carlson, 2006; Abdul-Rahaman et al., 2018) were conducted outside South Africa, hence their findings may not be applicable to the South African context.
- Some of the studies (Bunting, 2006; De La Rosa, 2006) are outdated, having been conducted more than five years ago, therefore their findings may not be valid currently.
- Other studies conducted (Moll, 2004) did not cover the objectives of this study.
- Many of the studies did not focus on the impact of NSFAS on students' access to higher education; instead, they investigated varying issues related to NSFAS in general (Steyn & de Villiers, 2005).
- Some of the studies (McGie, 2012; Machika & Johnson, 2015) were in form of case studies, or employed a limited sample size, a scenario that undermined the generalisability of their results about the impact of NSFAS; and
- Some of the findings of the studies (Carlson, 2006; Mackenzie et al., 2019) appear to contradict each other.

From the preceding knowledge gaps identified in the literature, the following research questions remain unanswered:

1. What is the impact of NSFAS on students' access to tertiary education?
2. What are the challenges that hinders students' access to NSFAS bursaries?
3. How does the NSFAS bursary impact on students' academic performance?

The unanswered questions suggest a need for a more recent South African study to fill the knowledge gap in the literature. This is a key gap that the researcher aims to fill by means of an exploration of the data and seeking answers to the above-mentioned questions.

2.12 SUMMARY AND CONCLUSION

The purpose of this chapter was to review the literature on the impact of NSFAS on students' access to tertiary education in the Western Cape. An attempt was made to contextualise the study area as the chapter commenced with a discussion on the higher education landscape of South Africa before and after 1994. The chapter discussed the legislative framework and principal guidelines of NSFAS, the importance of NSFAS in the South African economy and its favourable outcomes and factors that hinder students' access to NSFAS bursaries. Furthermore, the chapter discussed the theoretical framework used in this study. Given the gaps identified in the literature as well as the research questions that remain unanswered, it has been concluded that there is a need for more recent research to investigate the impact of NSFAS on students' access to higher education in South Africa. as little is known about the challenges that hinder students' access to NSFAS bursaries, the impact of these bursaries on students' academic performance and measures that could be put in place to ameliorate those factors. Chapter 3 discusses the research design and methodology employed to address the objectives of this study. It also discusses the method used in collecting the data and the statistics employed for analysing the same.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

The preceding chapter contextualised the study through a review of literature relating to the Higher Education sector in South Africa, the impact of the NSFAS on students' access tertiary education, and the importance of the scheme to South African economy. Research methodology refers to the way in which the research problem may be systematically solved (Kothari, 2004:8). A methodology indicates the model of research used to conduct a study within the framework of a specific paradigm (Wahyuni, 2012:72). Collis and Hussey (2009) further explain that research methodology is not only made of research methods, however, also the rationale behind the study and reason the method or technique was judged suitable. This chapter describes the research design and methodology used in this study to address the following research objectives, to:

- examine the impact of NSFAS on students' access to tertiary education.
- investigate the challenges that hinders students from accessing NSFAS bursaries.
- examine the impact of NSFAS on students' academic performance.

To address these objectives, a questionnaire survey methodology was deemed appropriate and, therefore, employed to collect quantitative data, which was analysed using descriptive and inferential statistics. Accordingly, this chapter justifies the selection of the research paradigm adopted as well as sampling technique and design of the questionnaire adopted in this study. This chapter proceeds with a discussion and justification of the positivist research paradigm adopted in the study, Section 3.2. The chapter justifies the questionnaire survey methodology adopted in Section 3.3. This is followed by a discussion on the research population and sampling technique employed in Section 3.4. Section 3.5 elaborates on the questionnaire design, followed by an overview of the pilot study conducted to test the questionnaire in Section 3.6. Section 3.7 presents the data collection process, while Section 3.8 provides a briefly describes the data analysis methods employed in the study. Section 3.9 discusses measures undertaken to ensure reliability and validity of the questionnaire (research instrument). In Section 3.10, limitations of the questionnaire survey methodology are

outlined, followed by ethical considerations relating to of this study in Section 3.11. Section 3.12 provides the summary and conclusion of the chapter.

3.2 RESEARCH PARADIGM ADOPTED IN THE STUDY

Rehman and Alharthi (2016:51) refer to a research paradigm as a set of beliefs about the nature of reality and further indicate that a paradigm is a basic system and theoretical framework of understanding the reality of the world and studying it. Research paradigms differ depending on the objectives of the research and the best way that might be used to achieve these goals (Goddard & Melville, 2004). Therefore, understanding the research paradigm adopted can help to explain the assumptions inherent in the research process and how these fit the methodology used. There are two main paradigms that inform the research process, namely: Positivism and Interpretivism.

Positivism refers to a branch of philosophy that is deeply rooted in science and mathematics, which is based on the view that whatever exists can be verified through experiments, observation and mathematical or logical proof (Richards, 2003:37). The positivist paradigm assumes that reality exists independently of humans. Positivist methodology relies heavily on experimentation. Hypotheses are put forward in propositional or question form about the causal relation between phenomena. Empirical evidence is gathered; the mass of empirical evidence is then analysed and formulated in the form of a theory that explains the effect of the independent variable on the dependent variable (Rehman & Alharthi, 2016:54). Accordingly, this philosophy often generates quantitative data to answer research questions and formulates theories that can be verified through true experiments, standardised tests and large or small-scale surveys using close-ended questionnaires. The numeric data generated through these methods are subjected to descriptive or inferential statistical analysis.

Interpretivism, also known as the interpretivist paradigm, involves researchers interpreting the elements of the study, it rejects the notion that a single, verifiable reality exists independent of our senses (Guba & Lincoln, 2005:204). This paradigm believes in socially constructed multiple realities. Truth and reality are created, not discovered (Myers, 2008). The goal of interpretive research is not to discover universal, context and value-free knowledge and truth, however to try to understand the interpretations of individuals about the social phenomena they interact with (Saunders, Lewis &

Thornhill, 2019:148). Accordingly, the interpretivist paradigm employs methods that generate qualitative data and, although numerical data could be involved, they are not relied upon.

A positivist paradigm, which is based on the notion that there is an objective reality that can be measured using metrics that are independent of the researcher and the research instrument used, was adopted in this study for several reasons. Firstly, the positivist paradigm is a preferred method since it allows the researcher to explain phenomena of the study in the fastest and economical possible way. In addition, this paradigm separates the researcher's bias from the objective reality, which enhances the reliability of a study. Secondly, it is a more objective approach than the interpretivist paradigm as it relies on quantitative data that are more reliable and verifiable than the latter paradigm, which advocates for the use of qualitative data (Maduekwe, 2016:47). Thirdly, the main objective of this study was to determine the extent to which NSFAS has impacted on students' access to tertiary education. This objective required quantitative data to provide empirical analysis on the impact NSFAS has on students' access to higher education institutions. Accordingly, the positivist paradigm which, by its very nature, is quantitative was deemed more appropriate in addressing this objective. Furthermore, the positivist paradigm was adopted since it requires a well-defined structure that is consistent with the use of close-ended questionnaires, which are convenient for statistical analysis. In addition, the positivist paradigm allows for a large sample to be drawn from the population, an aspect that increases generalisability of research findings (du Plooy-Cilliers, Davis & Bezuidenhout, 2014). Lastly, the paradigm is appropriate when time and resources are limited as was the case in this study, given that it is a fast and economical approach, for which it was deemed suitable for the study.

3.3 JUSTIFICATION FOR THE QUESTIONNAIRE SURVEY STRATEGY

A questionnaire survey strategy was deemed appropriate for this study for various reasons. In the first place, it is a quicker, more affordable, and progressively helpful method for collecting data from a large number of respondents than personal interviews method (Al-Mubarak, 1997:178). Secondly, this strategy allows respondents to answer questions at their own convenience without the undue influence of the presence of a researcher which tends to introduce bias (Al-Mubarak, 1997:180). Furthermore, if close-ended questions are used, the data collected with a

questionnaire can be quickly and easily captured, quantified, and analysed objectively by the researcher using a variety of statistical software packages. Lastly, students enrolled at institutions of higher learning are familiar with questionnaires and are less likely to be apprehensive when requested to participate in a questionnaire survey (Maduekwe, 2015).

3.4 RESEARCH POPULATION, SAMPLE AND SAMPLING TECHNIQUE

Researchers such as Obokoh, Monday and Ojiako (2016:114) and Zikmund (1997:417) refer to a population as the total group of specific population elements that is relevant to a particular study. The chosen population should have distinct elements that will interest the researcher and from which the sample will be drawn. The research population targeted by this study comprised students and financial aid staff from the selected university in the western cape. Due to a lack of an exhaustive comprehensive list of registered, active students and students who perceive that they qualify for NSFAS funding the exact population was unknown. For the purpose of the study, a target sample size of 100 students from all five campuses aimed at. Further, four financial aid office staff members who deal directly with NSFAS for all campuses (Athlone, Bellville, District Six, Mowbray, and Wellington) were included. The global Covid-19 pandemic and the amount of time needed to plan and administer the questionnaire was excessive and not everyone was keen to contribute to a study during a real-world crisis situation. To achieve the targeted sample, 1,501 students were contacted via email and other social media platforms such as WhatsApp and Facebook to complete the questionnaire.

3.4.1 Sampling technique

According to Mbumbo (2015:52), a sample is a smaller representative collection of units from a population used to determine truths about the research population. The purposive sampling technique was employed in distributing the questionnaire to students and financial aid staff by contacting any available and willing participant within all five campuses. This was to be done physically, however the physical approach was not possible because of the Covid-19 pandemic, as a result of which social media platforms were used. The choice of a purposive sampling scheme was justified on the grounds that if used properly, it is more resourceful than a random-sampling method. Also, this technique was deemed suitable for the study as it entailed drawing a sample

from that part of the population that has the attributes that serve the purpose of the study (Maduekwe, 2015:48). Besides, the technique was the most suitable since members of the target population were near and conveniently available for research purposes (Welman & Kruger, 2005).

3.5 DESIGN OF THE QUESTIONNAIRE

In the following subsections, general descriptions of the questionnaire design, and description of the specific sections in the questionnaire are discussed.

3.5.1 General description of the questionnaire design

The 9-page questionnaire designed comprised three sections for ease of navigation. A separate consent/cover letter was provided, which clarified to respondents the purpose of the study and indicated that respondents would not have to identify themselves. The letter also indicated the name of the researcher, email and contact telephone numbers as well as the contact details and name of the research supervisor. Furthermore, the consent letter highlighted the purpose of the study and assured respondents that any data they provided would be used solely for the purpose of the study, be kept confidential and anonymous, and free of risks associated with participating in the study.

The questionnaire was designed in an uncomplicated and straightforward way using simple English Language so as not to confuse participants. It was divided into three sections. Each section had sub-sections, with some questions that could be answered with a 'Yes' or 'No' and others by respondents marking or choosing applicable alternatives with a tick. A rating scale was also used to rate certain questions, such as the positive influence of NSFAS on students' access to tertiary education. The advantage of using rating likert scales is that the respondents were more inclined to answer all the questions in the questionnaire and give the opportunity for respondents to be graded fairly (Rhind, Davis & Jowett, 2014:111).

The questionnaire began with general questions on respondents' biographical data and their institutional profile and filtered down to introspection analysis on the impact of NSFAS on students' access to tertiary education, then to respondents' introspection on challenges that inhibit students' access to NSFAS bursaries. It funnelled down to the correlation between NSFAS bursaries and academic performance. Questions on challenges and recommendations that the financial aid office had come across which

caused delay in paying out students' allocations came last. To encourage respondents to complete the questionnaire, sensitive questions such as those pertaining to whether the respondents had graduated or not, results or their academic records were avoided. In addition, a deliberate effort was made not to ask any question that would directly link the response to a particular respondent.

3.5.2 Description of the specific sections in the questionnaire

The questionnaire used in the study comprised three sections (see Appendix B). Section A dealt with respondents' biographical data as well their institutional profiles. Section B focused on students' biographical data as well as introspection analysis on the impact of NSFAS on students' access to tertiary education, challenges that inhibit students' access to NSFAS bursaries and the correlation between NSFAS bursaries and academic performance, while Section C dealt with financial aid staff job analysis and administration.

5.1.1. Section A: Respondents' biographical data

Section A was aimed at obtaining data on respondents' personal as well as institutional profiles. This section comprised five multiple-choice questions. It included questions on the respondents' gender, age group, campus they belong to, number of years they have been in the institution as well as their position at CPUT.

5.1.2. Section B: Student biographical and introspection analysis

Section B of the questionnaire was designed to be completed by students only and divided into four sub-sections, namely: student biographical information, introspection analysis on the impact of NSFAS on students' access to tertiary education, challenges that inhibit students' access to NSFAS bursaries and the correlation between NSFAS bursaries and academic performance.

Students' biographical data

This sub-section of Section A of the questionnaire was deemed important for the study as it assisted to contextualise the students' backgrounds and foreground their low socio-economic statuses.

Introspection analysis on the impact of NSFAS on student's access to tertiary education

This part of Section A of the questionnaire was meant to determine how the availability of the NSFAS may contribute towards increasing access to higher education in general and of traditionally disadvantaged groups such as low-income families, ethnic minorities, and the rural poor. Furthermore, the purpose of this sub-section was to obtain data from students about NSFAS application process and the outcome thereof.

This sub-section consisted of thirteen questions, which focused on students' knowledge about NSFAS bursaries prior to accessing tertiary education, whether or not they were notified of the application procedures and if they applied or not for financial assistance and reasons for such. In addition, the section also extracted answers regarding if, when and how they were notified of the outcome and whether there was a brief explanation as to why the outcome would have come negative. Lastly, this part also sought to ascertain whether financial assistance from NSFAS had assisted students to perform better in their academic and professional journey.

Introspection analysis on challenges that inhibits student's access to NSFAS bursaries

This sub-section was meant to explore discouragement in hope for young people who hail from impoverished areas in attending tertiary education institutions as a result of their not having access to NSFAS bursaries to study at university. It consisted of seven questions, which focused on whether challenges were experienced by students when applying for NSFAS bursaries, what type of financial assistance they received, and when. The section also sought to determine challenges students face regarding allocation of funding.

Correlation between NSFAS bursaries and academic performance

This last part of Section A of the questionnaire was designed to assist in determining the connection between NSFAS bursaries and academic performance and whether or not more funding does automatically produce better academic performance. The questions elicited responses with regard to how the NSFAS financial assistance together with other challenges, if any, had an impact on students' academic performance and determined their future.

5.1.3. Section C: Financial aid staff job analysis and administration

Section C of the questionnaire was designed to be completed by Financial Aid Office staff of CPUT to determine the internal processes relating to how funds are

administered by, and challenges currently faced. This section of the questionnaire comprised 23 questions. It included questions such as the respondents' positions in the institution, number of years in those positions, highest educational qualifications, respondents' key responsibilities, the level at which they administer NSFAS allocation, application processes of the scheme and what is required in order for a student to apply for the bursary. In addition, this part was meant to determine how NSFAS allocations are disbursed to students and challenges associated with such disbursements. Lastly, respondents were encouraged to give suggestions on how some of the challenges, if any, associated with delays in paying out students' allocation could be overcome.

3.6 PILOT STUDY

Before to the commencement of the actual research, a pilot study was conducted to ensure that the wording of the questionnaire was clear and understandable to the respondents. To achieve this, the questionnaires were sent to the respondents as draft for their review and were also critically reviewed by at least six academics with vast experience in questionnaire design. During this process, the academics were required to explain their understanding of each question and identify any possible weaknesses that would render the questionnaire not being user-friendly. The researcher also used this process to test the length of time it took for the academics to complete the questionnaire as it assisted to provide an indication of how much time will be needed to distribute and complete the questionnaires. In the course of the pilot study, some shortcomings were identified in the questionnaire that included: a lack of clarity in some instructions, leading questions, incoherency in the questions as well as inclusion of two questions in one question. These shortcomings were corrected to the gratification of the academics, the questionnaire was deemed to be clear, concise, and user-friendly and thus was deemed to be suitable for collecting data for this study.

3.7 DATA COLLECTION PROCESS

Prior to collecting data from respondents, permission was obtained from the selected university's Business and Management Sciences Faculty Research Ethics Committee (FREC). During the data collection process, potential respondents were approached in person and on social media since the global Covid-19 pandemic was declared, which made it difficult to continue with data collection on the basis of physical contact.

This necessitated the use of online portal Google forms to collect data from CPUT students and financial aid staff. Due to closure of the institution in response to the lockdown, the researcher could not hand-deliver the questionnaire to the participants and had to engage with the Financial Aid Director and Staff, Administration Staff, Residence Coordinators, Student Representative Councils and Affiliated Organisations of the institution to obtain details of students within and outside residences to be contacted. Furthermore, after self-introduction, the research topic and purpose of the study were explained, and participants invited to participate in the study. Those who agreed to participate were asked to sign an informed consent form and the methodology employed was explained. Ethical issues such as anonymity of respondents, confidentiality of data provided as well as limited risk associated with participating in the study, an aspect that encouraged participation, were explained before the link to the questionnaire was provided to them for completion at their own convenience. An appointment was made to collect completed questionnaire and check on online completed questionnaire. This approach was beneficial as it saved time and increased the response rate. Although the respondents were allowed to complete the questionnaire at their convenience time, in some cases, some respondents asked the researcher to wait and do video calls while they completed the questionnaire. In other cases, several follow-ups and calls were made where respondents had promised to complete the questionnaire, however, had failed to do so within the agreed time.

3.8 DESCRIPTION OF DATA ANALYSIS METHODS ADOPTED

De Vos, Strydom, Fouche and Delport (2005:218) refer to data analysis as a method of checking, cleaning, converting, and formatting data with the aim to address research questions. Data collected from the completed questionnaire was analysed using both descriptive and inferential statistics. The Statistical Package for Social Science (SPSS) version 26.0 was utilised for data analysis purposes. However, using SPSS at any stage, can heavily affect the quality of the research outcomes (Pallant, 2010:3). Having spent time examining the advantages of using this software, SPSS was selected for the following reasons. Firstly, it assists a researcher to identify data-entry errors and unusual data points. Secondly, it avails a faster and easier access to frequency, descriptive and inferential statistical functions given that it has these functions in pull-down menus. Furthermore, SPSS has added functions that aid a researcher with the interpretation of statistical results. Lastly, it provides a wide range

of graphs and charts, and facilitates the creation of complex graphs drawn to make the information easier to read and understandable using pull-down menus. In this study, both descriptive and inferential statistics were used to analyse the data collected and are, thus, elaborated in the sections that follow.

3.8.1 Descriptive statistics

Descriptive statistics provide simple summaries about the sample and the observations made. Some of the measures that are typically used to describe the sample include measures of central tendencies such as arithmetic mean, mode, median and measures of dispersion such as standard deviation and variance. For the purpose of this study, percentages and graphs were used to summarise the responses of the respondents. In addition, an arithmetic mean was used to summarise and rank the responses of respondents to all the five-point Likert scale questions. For these questions, a standard deviation was computed to determine the level of agreement of respondents' responses on a particular statement, with less than 1 indicating an agreement and more than 1 indicating a disagreement (Collis & Hussey 2009).

3.8.2 Inferential statistics

Inferential statistics enable a researcher to infer about a population from the observations and analysis of data obtained from a sample. They enable researchers to apply the conclusions that have been reached from an experimental study to more general populations (Collis & Hussey, 2009:3). In this study, a binominal test was used to test for significant differences between proportion of respondents that said "Yes" and the proportion that said "No" in the questions that required a "Yes" or "No" response.

3.9 MEASURES TO ENSURE RELIABILITY AND VALIDITY

In the following subsections, reliability of the research instrument, validity of the research instrument, internal, construct, consent and external validity are discussed.
.....

3.9.1 Reliability of the research instrument

Reliability refers to the consistency or the ability of a research instrument to yield the same result when it is administered on the same subject at different times (Wells & Wollack, 2003). In this study, reliability of the questionnaire was tested during the pilot testing stage, when the questionnaire was critically reviewed by, at least, six

academics with vast experience in questionnaire design and found to be simple, clear, understandable, and capable of yielding the same results if administered to the same respondents at different times (Maree, 2010:215).

3.9.2 Validity of the research instrument

Validity refers to the extent to which a research instrument measures what it is supposed to measure (internal validity) and whether it leads to a valid conclusion (external validity) (Leedy & Ormrod, 2005: 31).

3.9.3 Internal validity

There are various types of internal validity, however for the purpose of this study, only construct and content validity were deemed relevant and deserve explanation.

3.9.4 Construct validity

Construct validity refers to the extent to which the research instrument actually measures the construct that is being investigated (Brynard & Hanekon, 2006:48; Aparasu & Bentley, 2020). Essentially, construct validity answers questions such as: is the survey instrument measuring what it should be measuring? How relevant are the questions included in the questionnaire in achieving the purpose of the study? (Huisamen & Weyers, 2014:1-8). One way of ensuring the achievement of construct validity is through pilot testing (Maree, 2007:216). In this study, the questionnaire was reviewed by six selected academic experts with extensive exposure in questionnaire design. These experts were requested to provide inputs and suggest any possible weaknesses in the questionnaire that would potentially undermine its external validity. Following the suggestions, the questionnaire was amended accordingly to ensure construct validity. According to Rowley (2002), construct validity of a questionnaire can also be enhanced by assuring that the objectivity of the questions in a questionnaire are linked the original research questions. As recommended by Rowley (2002), the questions in the questionnaire used in this study were directly derived and linked to the first, second, third and fourth research sub-questions, an approach deemed to have enhanced construct validity.

3.9.5 Content validity

Content validity refers to the extent to which all facets of a given construct are covered by a research instrument which, in this case, was a questionnaire (Brynard &

Hanekom, 2006:48). Basically, to ensure content validity, it is required that the survey instrument includes all the items that represent a concept. In this study, the contribution of experts with vast experience in questionnaire design was requested on the content and adequacy of questions contained in the questionnaire. Following their contribution, the questionnaire was amended accordingly to include the questions that were perceived to increased coverage and deleting those that were deemed not to contribute to the enhancement of the content validity before drafting the final questionnaire.

3.9.6 External validity

External validity relates to the extent to which the conclusions drawn from the selected sample can be generalised to the entire population or similar populations in terms of times, settings, or contexts (de Vaus, 1995:54; Leedy & Ormrod, 2005:105). In general, achieving external validity requires that a random sampling method be employed to ensure that the sample is representative of the population (Brynard & Hanekom, 2006:48). Although this method was not employed due to a lack of an exhaustive list of registered and active students at CPUT, the fact that a target sample size of 100 students and four financial aid staff from all five campuses was set enhanced the representativeness of the sample. Therefore, external validity was deemed to have been achieved, even if only to some extent.

3.10 LIMITATIONS OF THE QUESTIONNAIRE SURVEY

The limitations of a questionnaire were discussed in Chapter 1, section 1.9. Key factors among these limitations are non-response bias, which usually occurs when intended respondents do not to participate in the survey or decline to answer some of the questions due to certain characteristics they possess that differ from those who agree to answer the questionnaire or who answer all questions of the same (de Vos, Strydom, Fouche & Delpont, 2011). Non-response bias destroys the randomness of the sample, thus resulting in a sampling bias that makes the sample not to be representative of the population under study, an aspect that reduces the external validity of its findings (Vogt, Gardner & Haeffele 2012:210).

3.11 ETHICAL CONSIDERATIONS

This was the part of the study where significant things, such as ensuring that the participants were exclusively educated about the nature of the research, the space of

request, the goals, and objectives of the study, as well as the intended actions, were considered (Busher & James, 2002). This study involved collecting data from human participants via a questionnaire. Accordingly, approval was required from the Faculty of Business and Management Sciences Ethics Committee of the selected university in the western cape. To this end, an application was made to the committee for ethical clearance. The committee requires that participants in a study be protected from physical, social, psychological harm or any potential negative repercussion that may arise as a result of participating in the research. This typically requires that their informed consent be obtained prior to administering a questionnaire and that their confidentiality and anonymity be maintained. The purpose of the study was explained to the respondents in the cover letter (See Appendix A).

3.11.1 Informed consent

To adhere to the strict requirements of the Ethics Committee, it was explained to the respondents what the research entailed and emphasised that the respondents could withdraw from participating in the survey at any time without any negative repercussions. A request for consent letter was given to the participants to read, after which they were asked if further clarity was needed. After obtaining signed consent from the participants, the questionnaire was distributed.

3.11.2 Confidentiality and anonymity

The participants were guaranteed of secrecy as their personal details were not to be connected to their individual responses. Also the participants were assured that they would remain unidentified during the course of this research study to generate a stronger guarantee of privacy. In addition, the participants were also guaranteed that data collected will be used for research purposes only and confidentiality of their personal details would not be compromised to a third party. The respondents were also informed that findings of the study would be made available to them, if they so requested.

3.12 SUMMARY AND CONCLUSIONS

This chapter described the method used to collect data required to meet the objectives of the study. It began with a discussion of the research paradigm adopted and the justification using the questionnaire survey strategy. The chapter explained the research approach employed in the study, outlining the research design, population,

sampling technique and data collection procedures deemed suitable for the study. A pilot test was conducted on the questionnaire to ensure its clarity, conciseness and understand the ability when discussed as well as the data collection process in the form of a hand-delivered, self-administered questionnaire. Descriptive and inferential statistics used to analyse the data were discussed, followed by measures taken to ensure the reliability and validity of the research instrument. Limitations of the questionnaire strategy were also discussed alongside the ethical considerations. In conclusion, the research methodology outlined in this chapter was appropriate in addressing the research objectives of the study. Chapter 4 focuses on analysis and discussion of the results.

CHAPTER 4

PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

The preceding chapter described the research design and methodology used in this study. This chapter focuses on presentation of the results from analysing data collected from the fieldwork. The aim of the study was to determine the impact of NSFAS on students' access to tertiary education in a selected university in Western Cape Province of South Africa. The study specifically sought to provide answers to three key issues, namely: the impact of NSFAS on access to tertiary education, challenges that hinder students' access to NSFAS bursaries, and finally the impact of NSFAS on students' academic performance.

The chapter commences with a re-statement of the research objectives in Section 4.2, followed by a discussion of the response rate in Section 4.3. Section 4.4 provides respondents' demographic data distribution. This includes respondents' age, gender, geographical location, family background and other related aspects of application and students' success in applying to NSFAS. Section 4.5 deals with descriptive and cross-tabulation analysis of questionnaire items.

Section 4.6 deals with statistical analysis of responses to the research questions, which starts with non-parametric Chi-square analysis before proceeding to partial least square path modelling, also known as partial least square structural equation modelling (PLS-SEM). The Chi-square table was designed to test the independent hypothesis to answer the research question of association/relationship among variables under consideration, followed by Chi-square and Symmetric measure tables, finishing with an associated graph of illustration. The degree of the effect was tested using Phi and Cramer's V. The focus of Section 4.7 is financial aid staff and administration. Section 4.8 presents and discusses the theoretical justification on access to tertiary education before and after the introduction of NSFAS, while Section 4.9 concludes the chapter with a summary.

4.2 RESTATEMENT OF RESEARCH OBJECTIVES

The main purpose of this study was to determine the impact of NSFAS on students' access to tertiary education in a selected University in the Western Cape. To achieve

this purpose, research objectives were formulated. The research question, which formed the basis of this study was:

To what extent has the National Student Financial Aid Scheme influenced students' enrolment in higher education in a selected university in the Western Cape?

Three sub-questions that follows the research question were outlined as follows:

- What is the impact of NSFAS on students' access to tertiary education?
- What are the challenges that hinder students' access to NSFAS bursaries?
- Does NSFAS bursary impact on students' academic performance?

4.3 RESPONSE RATE

Given the unavailability of a comprehensive database of all students who have applied to the scheme and the designated number of financial aid staff working directly with NSFAS, a target sample of 501 students across all five campuses was proposed. To achieve the targeted sample, 1,500 students were contacted via email and other social media platforms such as WhatsApp and Facebook to complete a questionnaire designed using Google forms as these could not be hand-delivered due to physical contact restrictions occasioned by the Covid-19 pandemic, using a purposeful sampling technique. The email sent to 1,500 students with the attached questionnaire as opposed to just 501 was done in anticipation that not all recipients of the questionnaire would be willing to participate in the survey. Consequently, out of the 1,500 questionnaires that were sent out through email, 501 completed and usable questionnaires were returned.

4.4 RESPONDENTS' SOCIO-DEMOGRAPHIC ANALYSIS

The students were requested to provide their personal details as part of their profiles as well as their institutional status in Section A of the questionnaire. Their gender, age group, whether they were from rural or urban areas, and their socio-economic standing in terms of job and household income were among the personal profile information sought. The following information was sought for institutional profile: campus where they were enrolled, how long they have been at the university, and their enrolment. This information was collected to guarantee that only the most qualified respondents were chosen to take part in the survey. The demographics present background information about the students and other respondents who provided the data collected

through the online survey questionnaire administered due to Covid-19 outbreaks that changed the direction from physical presentation to online administration. The researcher was able to use the advantages of online administration of the questionnaire to reach out to over 501 students and four financial aid staff. The positive return rate led to over 501 students returning the questionnaire with adequate feedback and the institution they were enrolled.

4.4.1 Gender of the respondents

With regard to gender, the demographics indicated that the mode of the frequency for females was 59.80% (299) of the respondents. The remaining 40.20% (201) were male. Thus, gender distribution skewed towards females (see Table 4.1).

4.4.2 Age group

As shown in Table 4.1, in terms of the age group respondents belonged, the results showed that the modal class of the distribution was the age group 21-23 years with a frequency 175 out 501. Following this modal class was the age range 18-20 years with a frequency of 167. Next on the list was age group 24-26 with a frequency of 105. The least representative group was age group 27-29 years with a frequency of 41. The age group data revealed that 87% of students were below 26 years of age, predominantly representing the youth who need tertiary education for human development.

4.4.3 Academic year in the institution

Regarding the academic year, the results indicated that 47.51% of the respondents were in their 3rd-4th year of their various academic programmes. Following on the list was 1st-2nd year students, who were 41.12% of the respondents and postgraduate students, representing 11.38% of the respondents. These percentages are shown in Table 4.1.

4.4.4 Respondents rural or urban residence

As Table 4.1 indicates, with regard to whether the respondents are from rural or urban areas, in Table 4.1, the mode distributions showed a high modal class of 281 respondents (281) from the rural area, while 220 (43.80%) of them were from the urban settlement.

4.4.5 Employment status

In relation to the employment status of the respondents' parents or guardians, the analysis revealed that 63.60% (318) of them were unemployed, while 36.40% (318) had the opportunity of being employed in a low-income paid job, which means that they were in good position to apply for financial assistance as shown in Table 4.1.

4.4.6 Respondents' total household income

Finally, with reference to the total household income in Table 4.1, the mode distribution indicated 188 households earned an average income of R0 to R7,000, followed by 61 households with R8,000-R14,000 earnings. Next on the list were 58 households earning an average of R15,000-R21,000, while the remaining 37 households earned above R21,0000 monthly.

Table 4.1: Demographics of the respondents

Variable	Mode	Mode	Categories	Freq	(%)
What is your gender?	Female	299	Female	299	59.68
			Male	202	40.32
Which age group do you belong to?	21-23 Years	175	18 and 20 Years	167	33.33
			21-23 Years	175	34.93
			24-26 Years	105	20.96
			27-29 Years	41	8.18
			30-32 Years	8	1.60
			Above 32 Years	4	1.00
Please indicate which academic year you are currently in	3rd-4th Year	238	1 st -2nd Year	206	41.12
			3rd-4th Year	238	47.51
			Postgraduate	57	11.38
Do you come from rural or urban area?	Rural	281	Rural	281	56.09
			Urban	220	43.91
Are your parent(s)/guardian(s) employed?	Yes	318	No	183	36.53
			Yes	318	63.47
If employed, what is the total household income per month?	Between R0 and R7,000	188	R0 and R7,000	188	54.65
			R8,000-R14,000	61	17.73

Variable	Mode	Mode	Categories	Freq	(%)
			R15,000-R21,000	58	16.86
			Above R21,000	37	10.76

Source: Author's computation

The socio-demographic analysis in Table 4.1 suggests that a heterogeneous group of respondents was selected to participate in this study. Members of the group held different gender identities, belonged to different age groups, were in different academic years, came from different national geographic areas, had work and labour force characteristics and the combined gross income of all members of a household within the set income bracket of this study. As a result, it is safe to assume that the questionnaire was completed by people of varied political beliefs.

4.5 RESPONDENT'S' KNOWLEDGE ABOUT NSFAS BURSARIES AND APPLICATIONS

As shown in Table 4.2, six questionnaire items were raised to discuss student applications and students' respective sources of information about NSFAS bursaries. Responses to the items are discussed in the following sections.

4.5.1 NSFAS bursary application

The proportion of students that applied for NSFAS from the pool of respondents received from the Student Affairs Division of the institution stood at 91.40% (457), while the remaining students did not apply for the bursary with 43, representing only 8.60% of the respondents. Therefore, the research covered the target population that could provide adequate data about the activities of NSFAS in the institution.

4.5.2 Application outcomes

The proportion of approved application by NSFAS stood at 77.40% (387), while those declined stood at 16.20% (81). The remaining 6.40% (32) of the students did not apply for NSFAS bursaries. It would be an advantage to the households where the students came from if more applications were approved by the scheme to meet needs of different respondents.

4.5.3 Notification of the application outcome

The analysis indicated that the level of non-applicable students who were not notified at

all stood at 47.20% (236), while those who were notified by email was 43.60% (218). About 5%, that is, 25 students received the information through SMS's, 2.20% (11) of the students were notified through the NSFAS Online Portal, 1.80% (9) got theirs through telephone calls and 0.20% (1) got the information through the campus billboards.

4.5.4 Process as to what needs to be done after application approvals

Analysis revealed 49.40% (247) of the students were taken through the due process that needed to be followed after approval was granted. Of the respondents, 17% (85) were not taken through the due process to be followed after approval, while the remaining 33.60% (168) of the students were not applicable.

4.5.5 Assistance from NSFAS to archive more

The proportional of students who attested NSFAS had helped them to achieve more in their lives stood at 62.80% (314); 20.60% (103) of the students were not helped in furthering their education by NSFAS, while the remaining 16.60% (83) of the students were not applicable. The following table provides the respondents response regarding their knowledge about NSFAS bursaries and its applications.

Table 4.2: Respondents' knowledge about NSFAS bursaries and applications

Variable	Mode	Mode	Category	Freq	(%)
Have you applied for financial assistance to NSFAS?	Yes	457	No	44.000	8.782
			Yes	457.000	91.218
What was the outcome of your application? Please tick the applicable box.	Approved	387	Approved	387.000	77.246
			Declined	81.000	16.168
			Not Applicable	33.000	6.587
Were you notified of the outcome of your application?	Yes	448	No	20.000	3.992
			Not Applicable	33.000	6.587
			Yes	448.000	89.421

Variable	Mode	Mode	Category	Freq	(%)
How were you notified?	Not Applicable	236	SMS	25.000	5.000
			Telephone Call	9.000	1.800
			Email	218.000	43.600
			Billboard on Campus	1.000	0.200
			NSFAS Online Portal	11.000	2.196
			Not Applicable	236.000	47.200
Were you taken through the process of what needs to be done after the approval of your application?	Yes	247	No	85.000	17.000
			Not Applicable	168.000	33.600
			Yes	247.000	49.400
Do you think NSFAS has helped you achieve further?	Yes	314	No	103.000	20.559
			Not Applicable	83.000	16.600
			Yes	314.000	62.600

4.6 RESEARCH QUESTION ANALYSIS

This section provides empirical answers to research questions raised in the course of the study. Three distinct, however highly connected research questions were raised. These were meant to determine the impact of NSFAS on students' access to tertiary education, challenges that hinder students' access to NSFAS bursaries and difficulties encountered when applying for the bursary and, lastly, the impact of NSFAS on students' academic performance. In an effort to minimise the effect of non-response bias, different campuses, which comprised students from different faculties, different levels of study, staff with different qualifications, both male and female, were recruited to participate in the survey. In addition, respondents' profiles were analysed to ensure that students and staff with different characteristics completed the questionnaire. As already mentioned, purposive sampling was employed in selecting the desired

sample. This raised the possibility that the selected sample might be unrepresentative of the entire population, since it was not chosen randomly. This limitation was reduced by setting a target sample size of 100 students from each selected campus and four financial aid staff members that deal directly with NSFAS in the entire institution (See Section 3.4.1). A well-documented limitation associated with a questionnaire is a low response rate, which may make the results unrepresentative of the population (Saunders et al., 2007:98). To overcome this limitation, a target sample size of five campuses (100 students from each campus and four staff members of the institution) was included in the sample. In addition, some of the respondents were contacted more than once to persuade them to complete the questionnaire. Furthermore, only close-ended questions were included in the questionnaire, and it was deliberately shortened to encourage respondents to complete the questionnaire.

Another limitation of using a questionnaire specifically when it is administered to students and financial aid staff is their reluctance to participate in a survey owing to their busy schedule. To overcome this, the essence of the study was explained to the respondents when distributing the questionnaire. In addition to this, the researcher contacted some respondents several times and reassured them that any data they provided would be kept confidential. Yet another limitation of the study is that it focused on students and financial aid staff in a selected university in the Western Cape only. Its findings are, therefore, not generalisable to universities in the province, or to those other parts of South Africa.

The last limitation was that the respondents were current registered students and employed financial aid staff only. The inclusion of former senior students and financial aid staff who have experienced a full NSFAS cycle could have provided more robust data and added more insights to this investigation. Nonetheless, the study achieved its aim and objectives and contributed to the body of knowledge with regard to the impact of NSFAS on students' access to tertiary education.

4.6.1 The impact of NSFAS on student's access to tertiary education

The number of students who said NSFAS helped them to advance academically was 62.80% (314), whereas 20.56% (103) said NSFAS did not help them advance academically, and 16.67% (83) said it was not applicable. Table 4.3 indicates responses of the students to the questionnaire item on the impact of NSFAS on their access to

tertiary education. Students who applied and got approval and those that neither applied nor got their applications approved responded to the question. The five Likert-scale type of responses were coded to capture the students' responses as shown in Table 4.3. The mode of the distribution showed that 47.21% of the respondents, accounting for 236 students out of 501, agreed that NSFAS positively influenced their ability to access tertiary education. Students who both disagreed and strongly disagreed with the statement of access to tertiary education accounted for 25% (125) of the respondents. Also, 15.2% (76) of respondents neither agreed nor disagreed with the statement.

In sum, Table 4.3 shows that almost 60% of the students either agreed or strongly agreed with the statement that NSFAS, indeed, positively influenced their access to tertiary education, which captured the true perception of the respondents, over 90% of whom were beneficiaries of NSFAS. Following an analysis of students' responses to questions about the impact of NSFAS on tertiary education access, it was found that 60% of respondents agreed or strongly agreed with the statement on positive influence. As a result, the subject of independence became critical, as the theoretical assumption is that students who are not NSFAS recipients have statistically and significantly different perceptions of NSFAS' impact on students' admission to higher education institutions.

Table 4.3: Impact of NSFAS on students' access to tertiary education

Variable	Mode	Mode	Categories	Freq	(%)
Has NSFAS positively influenced your access to tertiary education?	Agree (A)	236	Agree (A)	235	47.11
			Disagree (D)	116	23.15
			Neutral (N)	76	15.17
			Strongly Agree (SA)	64	12.77
			Strongly Disagree (SD)	9	1.80

Source: Fieldwork

Tables 4.4 and 4.5, and Figure 4.1 provide explicit cross-tabulation of application status and students' responses to the NSFAS bursary impact on tertiary institution access. Table 4.4 and Figure 4.1 depict the distribution of respondents who were NSFAS beneficiaries was skewed to the left of Figure 4.1, whereas the distribution of students

who were not beneficiaries was skewed to the right of the chart. The skewed distribution indicates that the majority of students who agreed or strongly agreed that NSFAS positively influenced their access to tertiary institutions had their applications approved, whereas the majority of those who were neutral or disagreed had their applications declined or were not qualified to apply for the bursary (NSFAS). However, as revealed by Table 4.4 and Figure 4.1, there was a variance in responses depending on their application outcome.

Disparities in students' perceptions of the influence of NSFAS on tertiary institution access remain unknown, which is critical before inferences about the impact of NSFAS on student tertiary institution access can be made. As a result, Table 4.4 shows information on non-parametric chi-square test of independence and the Cramer V degree of association.

Table 4.4: Application status and Students' Response to NSFAS on access to tertiary education

	Strongly Agree (SA)	Agree (A)	Neither agree nor disagree (N)	Disagree (D)	Strongly Disagree (SD)	Total
Approved	64	232	21	67	2	386
Declined	0	2	34	38	7	81
Not Applicable	0	1	21	11	0	34
Total	64	236	76	116	9	501

Source: Fieldwork

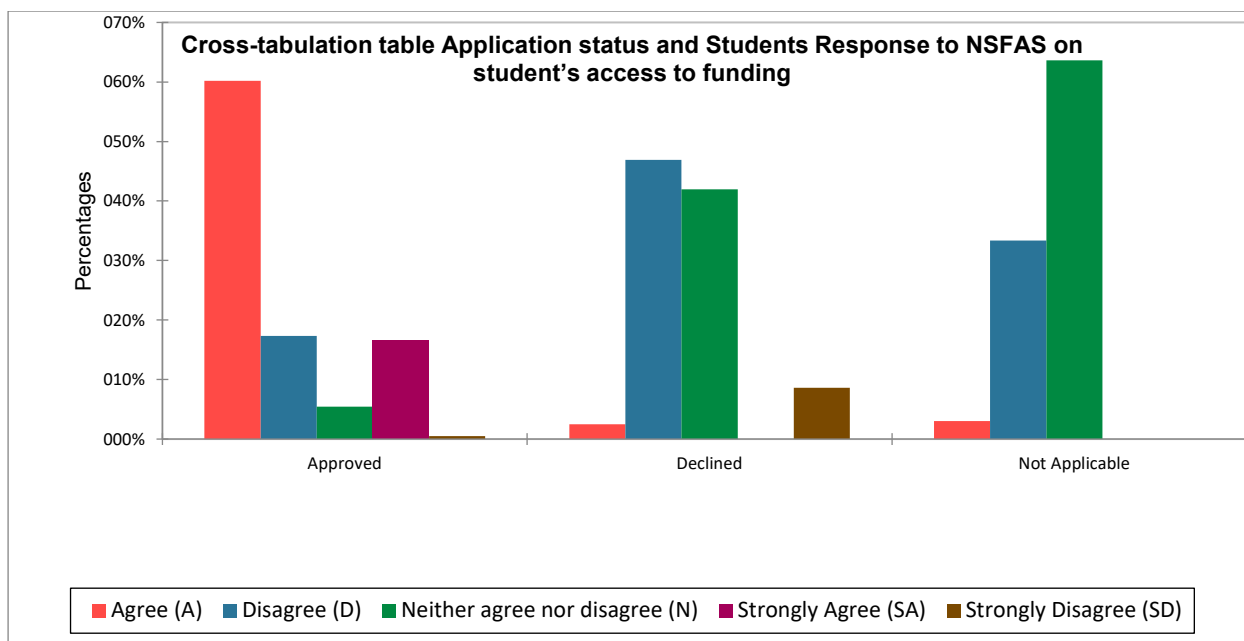


Figure 4.1: Application Status and students' response to NSFAS on students' access to tertiary education in a selected university

Source: Fieldwork

Table 4.4 revealed a Chi-square value of 246.689, indicating that students' application status had a statistically significant impact on their impression of the impact of NSFAS on students' access to funding in the selected university in Western Cape Province. This suggests that the students' responses were based on their own experiences, as it is difficult to describe feelings about something one did not experience. As a result, students' experiential knowledge was revealed in this study, which could be used to arrive at a conclusion about policies that can improve NSFAS operations in South Africa. In table 4.5, $X^2(8, n = 501) = 246.689$, $p\text{-value} = 0.000$, Cramer's $V = 0.496$ is the chi-square value. The Cramer's V result in Table 4.5 (Gravetter & Wallnau, 2004; Pallant, 2011) confirmed a very strong effect of students' application status on their perceptions of the impact of NSFAS on students' access to funding at their respective campuses.

Table 4.5: Test of independence between the Student Application Status and their Perception on the impact of NSFAS on student's access to tertiary education in a selected university columns (Chi-square)

Chi-square (Observed value)	246.689								
Chi-square (Critical value)	15.507								
DF	8								

p-value	<0.0001								
Alpha	0.050								
Test interpretation:									
H0: The rows and the columns of the table are independent.									
Ha: There is a link between the rows and the columns of the table.									
As the computed p-value is lower than the significance level alpha=0.05, one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.									
Association Test coefficients:									
Coefficient					Value				
Pearson's Phi					0.702				
Contingency coefficient					0.574				
Cramer's V					0.496				
Goodman and Kruskal tau (C/R)					0.162				

Source: Fieldwork

4.6.2 Structural Equation Model Analysis of the impact of NSFAS on students' access to tertiary education

The two preceding analyses on the impact of NSFAS on students' access to tertiary institutions explain the responses of the students on the variable under consideration and test the independence of the variable to application status of the students. However, there is a need to conduct advanced statistical analysis to draw inferences on the magnitude and direction of the impact of the scheme on students' access to tertiary institution. The analysis of structural equation model shown in Figure 4.2. Figure 4.2 provides details of the impact of the structural equation model on students' access to tertiary institution. Only one hypothesis was developed to effectively provide an answer to the first research question.

Hypothesis 1: This hypothesis states that there is no statistically significant impact of NSFAS on students' access to tertiary institution.

Impact of NSFAS on Student Access to Tertiary Institution Model

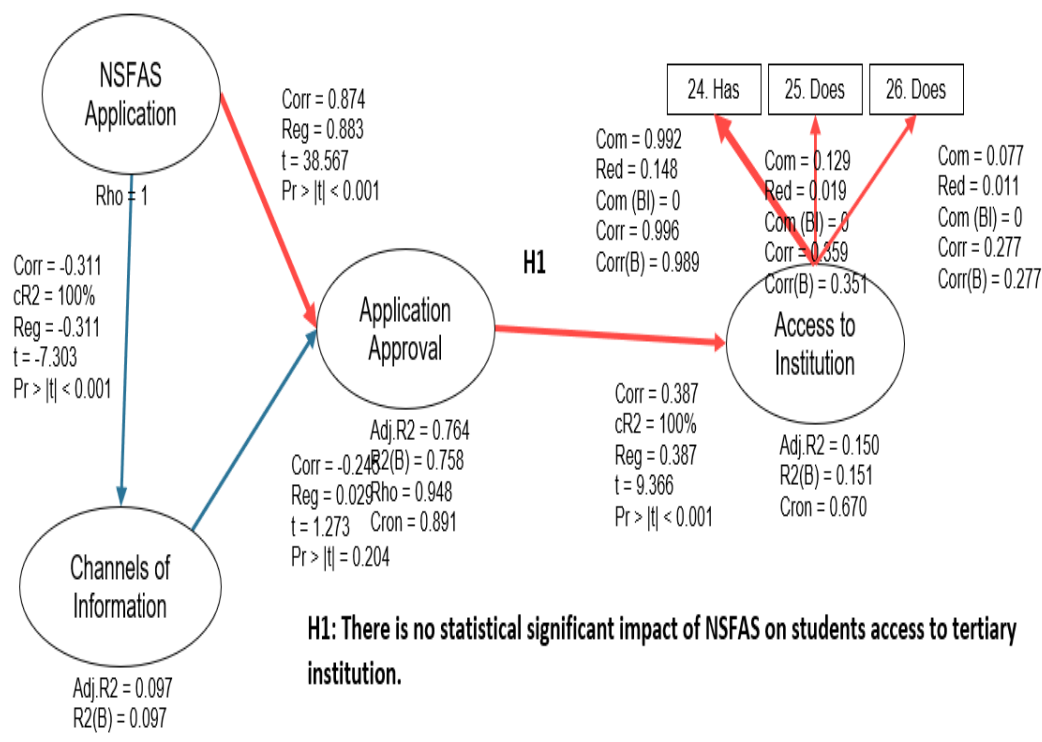


Figure 4.2: Structural Equation model

Source: Fieldwork

Table 4.6: Structural estimates (Hypothesis testing).

Hypotheses	Beta	SE	t-value
H1: Application Approval Status -> Access to tertiary Institution Quality	.387**	.041	9.387

Note. Critical t-values. **2.58 ($p < .01$).

In Table 4.5, the model predictive measure gives a good satisfactory result based on the R^2 values of 0.150. Overall F-statistic value of 87.72 (F-stat probability value = .000). As suggested by Falk and Miller (1992) that R^2 must be greater than 0.10 for the model to have predictive relevance. The model reveals that access to NSFAS, indeed, has a statistically significant impact on students' access to the tertiary institution. The result suggested that scheme's impact increases the odds of attending tertiary institution by 39%. Also, the result sign being positive indicates that the scheme has, indeed, positively influenced students' access to tertiary institutions. Moreover, the structural

equation modelling of XLSTAT provides a unique tool to visually understand the importance and performance of an explanatory variable. Figure 4.3 presents importance-performance matrix analysis of the impact of NSFAS on students' access to tertiary institutions. The figure virtually displays students' decision to apply for NSFAS (NSFAS Application) and application approved status (application approval) at the top right corner of the IPMA chart, which indicated a high level of both importance and performance of NSFAS application and its successful approval as a major determinant of access to tertiary institutions for the students. However, an additional variable was added to the model of impact of NSFAS on students' access to tertiary the institution. The variable captured the channel through which students received information about the success or failure of their applications. The IMPA chart revealed the major channels of information as either by email (Internet based) or SMS, which are not strong determinants of access to tertiary institutions.

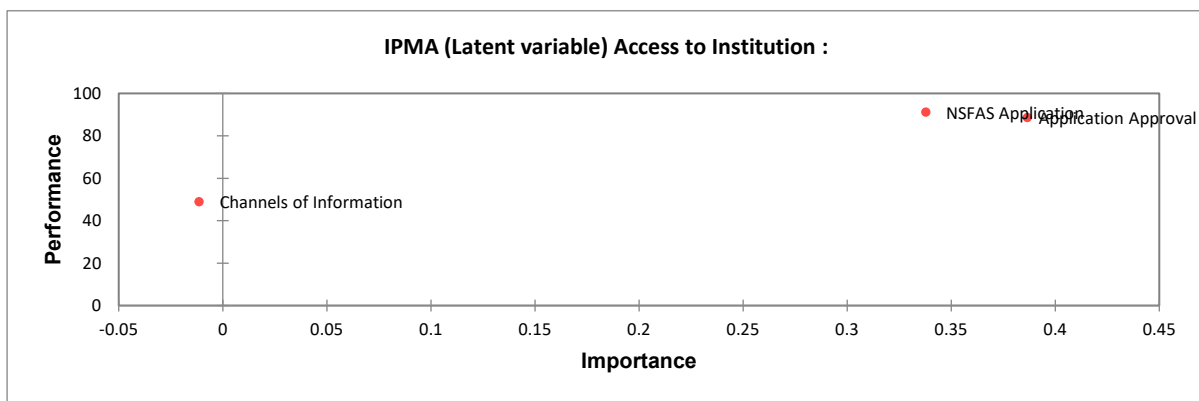


Figure 4.2: Importance-Performance Matrix Analysis

Source: Fieldwork

To sum up, the result for the first research question was very robust and comprehensive in drawing inferences that NSFAS had positively and significantly influenced students' access to tertiary institutions. The impact is statistically significant and of great magnitude to determine the students' access to tertiary institutions.

4.6.3 Introspection analysis on challenges that inhabit students' access to NSFAS bursaries

This section presents various challenges faced by students who applied for the NSFAS bursary. Table 4.7 revealed a greater proportion of students were facing many challenges in accessing NSFAS both before and after approval of the bursary. Among the most common challenges raised by students was a lack of information about the

NSFAS bursaries. The lack of information and communication regarding the students' access to NSFAS bursaries accounted for 128 in number. They represent 25.6% of the total number of respondents. Other challenges faced by students related to procedural and eligibility Issue. Table 4.6 indicates that 49 (9.8%) were faced with procedural and eligibility challenge, while 59 (11.8%) of the students were also faced with complexity of NSFAS application. Table 4.7 also reveals that the applications of 10 out of 501 students were denied due to lack of certified supporting documents. Further, Table 4.6 shows other related challenges, including access to the internet, affordability, difficulties in getting all the necessary documents within a short period of time, knowing when they are accepted or not and getting supporting documents from various sectors/departments taking so much more time that they could even miss the closing date. Students who encountered all other aforementioned challenges were 27 (5.4%).

Table 4.7: What challenges did you encounter when applying for NSFAS bursaries?

Categories	Frequency	(%)
Other	27	5.389
Lack of information	65	12.974
Lack of information; b. Procedural and Eligibility Issue	11	2.196
Lack of information; Procedural and Eligibility Issue; Complexity of NSFAS Application	21	4.192
Lack of information Procedural and Eligibility Issue Complexity of NSFAS Application; Gathering of certified supporting documents.	2	0.399
Lack of information; Complexity of NSFAS Application	21	4.192
Lack of information; Complexity of NSFAS Application; Gathering Documents all the Required Documents.	2	0.399
Lack of information; Complexity of NSFAS Application; Gathering of certified supporting documents.	5	0.998
Lack of information; Complexity of NSFAS Application None Getting necessary documents to apply.	1	0.200
Procedural and Eligibility Issue	14	2.794
Procedural and Eligibility Issue; Affordability	1	0.200
Complexity of NSFAS Application	6	1.198

Categories	Frequency	(%)
Complexity of NSFAS Application; Gating certified supporting documents.	1	0.200
None	324	64.671
	1	2.500
Access to internet	1	2.500
Affordability	1	2.500
Difficulties of getting all the necessary documents within a short period of time.	7	17.500
Difficulties of getting all the necessary documents within a short period of time.	1	2.500
Do not really know when you are accepted or not	1	2.500
Getting supporting documents from various sector/departments takes much more time that you can even miss the closing date.	1	2.500
Getting supporting documents from various sector/departments takes much more time that you can even miss the deadline.	14	35.000

Source: Fieldwork

Table 4.8: What type of financial assistance did you receive?

Categories	Frequency	(%)
None	107.000	21.357
Tuition Fees Payment	3.000	0.599
Tuition Fees Payment Accommodation	3.000	0.599
Tuition Fees Payment, Accommodation, Travelling Allowance	2.000	0.399
Tuition Fees Payment, Accommodation Travelling Allowance Food Allowance Book Allowance	3.000	0.599
Tuition Fees Payment, Accommodation Travelling Allowance Book Allowance	2.000	0.399
Tuition Fees Payment Accommodation Food Allowance	7.000	1.397
Tuition Fees Payment Accommodation Food Allowance Book Allowance	278.000	55.603
Tuition Fees Payment Accommodation Food Allowance Book Allowance Other expenses related to your studies	1.000	0.200
Tuition Fees Payment Accommodation Book Allowance	8.000	1.597

Categories	Frequency	(%)
Tuition Fees Payment Accommodation Book Allowance Other expenses related to your studies	1.000	0.200
Tuition Fees Payment Travelling Allowance Food Allowance	2.000	0.399
Tuition Fees Payment Travelling Allowance Food Allowance Book Allowance	47.000	9.381
Tuition Fees Payment Travelling Allowance Book Allowance	9.000	1.796
Tuition Fees Payment Food Allowance	1.000	0.200
Tuition Fees Payment Food Allowance Book Allowance	13.000	2.595
Tuition Fees Payment Book Allowance	1.000	0.200
Accommodation Food Allowance Book Allowance	3.000	0.599
Travelling Allowance Food Allowance	1.000	0.200
Travelling Allowance Food Allowance Book Allowance	3.000	0.599
Travelling Allowance Book Allowance	1.000	0.200
Food Allowance Book Allowance	4.000	0.798
Other expenses related to your studies	1.000	0.200

Source: Fieldwork

The analysis indicated that 278 (55.60%) of the respondents received financial assistance for tuition fees, payment of accommodation, food, and book allowances, while 21.40% received no support at all. About 14%, that is, 70 students, did not occupy residence, but received travelling allowances in place of payment for accommodation.

Table 4.9: When did you start receiving the above-mentioned allowances?

Categories	Frequency	(%)
Fourth Term	21.000	4.192
Not Applicable	107.000	21.357
Second Term	147.000	29.341
Start of the first term	112.000	22.355
Third Term	114.000	22.754

Source: Fieldwork

4.6.4 Correlation between NSFAS bursaries and academic performance

Table 4.10 shows responses of the students to questionnaire items relating to the correlation between NSFAS bursaries and students' academic performance. The five-point Likert-scale responses were coded to capture the students' responses to each of the six items of the questionnaire. The first question asked if the availability of NSFAS to students prevents failures. The mode of the distribution representing 195 (38.9%) out of 501 students disagreed with the statement that NSFAS prevent failures. Further, 30 (25.95%) neither agreed nor disagreed with the statement. Less than 5% of the students strongly agreed, while the remaining, less than 1%, strongly disagreed. The students' responses casts doubt on the impact of NSFAS as a bursary that prevents failure. The second question negates the first by asking the students about the provision of financial aid as a pivot for success. The response of students is presented in the second row of the table. The mode of the distribution indicates 293 (58.4%) of the 501 students disagreed with the statement that the provision of financial aid to students ensures success. A hundred (100) students, representing 19.96%, agreed with the statement, while 92 neither agreed nor disagreed. Therefore, provision of financial aid to students neither prevents failure nor ensures success as indicated by majority of the students, based in their responses to the questionnaire regarding whether availability of NSFAS prevented failures and the provision of financial aid ensured success.

The next two consecutive variables (NSFAS motivation to students to exceed academically and whether students who received NSFAS bursaries performed better academically) dealt with the impact of NSFAS as a motivation for better academic performance by the students. Variable 3 in Table 4.10 asked if the provision of NSFAS motivated students academically. The responses of the students indicated that most agreed with the statement that provision of NSFAS motivates students academically. In terms of distribution, 283 of the 501 students, representing 56.49%, agreed. An additional 71 students, representing 14.17% of the total number of students strongly agree with the statement. Therefore, more than 70% of the students either agreed or strongly agreed that NSFAS motivated them academically. The third question is similar to the item 3 as questionnaire items asked if students that received NSFAS perform better academically, and the majority of the students respond with either agree or strongly agree. The statistics indicated that those who agreed with the statement was more than 54% of the total number of respondents, that is, 273 students out of 501. The

number of students who neither agreed nor disagreed was 190, representing 38% of the total number of respondents. Although, the majority of respondents agreed, the number of students who either remained neutral or disagreed was more than 40% of number of respondents. The percentage of students who were beneficiaries of NSFAS was more than 77% of the total number of respondents. The responses of students indicated the need for a cursory investigation into NSFAS' activities to establish efficiency and effectiveness and for a detailed assessment of its impact on students' academic performance. Question 5 in Table 4.10 dealt with a statement regarding whether students academically underperformed when they were not beneficiaries of NSFAS. The mode of the result is neither agree nor disagree from the students. The number of students who neither agreed nor disagreed was 250, representing 50% of the total respondents. However, 103 students disagreed, while 65 strongly disagreed. Therefore, more than 82% of the students either disagreed or remained neutral.

Finally, the last question in Table 4.9 reinforces question 5. It asks for the respondents' opinion as to whether students under NSFAS all graduate with the best class of degrees. The mode of the distribution is neutral as the number of students that neither agreed nor disagreed with the statement represent 40.12% (205) of the total respondents. The number of students who were either neutral or disagreed with the statement that NSFAS beneficiaries graduate with the best class of degrees was more than 70% of the respondents. Therefore, the students' responses, on the face value as explained, do not provide any conclusive inferences on the impact of NSFAS on students' academic performance. It was imperative to investigate if the students' responses were independent of their application status as NSFAS beneficiaries. Also, the results of research question 1 indicated that students' responses were based on their experiences and students who were beneficiaries may respond better to some question on NSFAS impact than those who were not beneficiaries as they may know better what they lacked in the absence of NSFAS bursary.

After a review of students' responses to questions on the impact of NSFAS on academic performance the results failed to indicate a dependable response since the questionnaire items did not give responses as expected. Therefore, the question of independence became imperative as the theoretical assumption is that students who were not beneficiaries of NSFAS could, statistically and significantly, differ in their perception of the impact of NSFAS on students' academic performance. Given this

background, a non-parametric chi-square test of independence was conducted to test if access to NSFAS by students had a statistically significant influence on their perception of the impact of NSFAS on students' academic performance.

Table 4.10: Correlation between NSFAS bursaries and academic performance

Variable	Mode	Mode	Categories	Freq	(%)
1. Does the availability of NSFAS to students prevent failures?	Disagree (D)	195	Agree (A)	150	29.4
			Disagree (D)	195	38.92
			Neutral (N)	130	25.95
			Strongly Agree (SA)	22	4.39
			Strongly Disagree (SD)	4	0.80
2. Does provision of financial aid to students ensure success?	Disagree (D)	293	Agree (A)	100	19.6
			Disagree (D)	293	58.48
			Neutral (N)	92	18.8

Variable	Mode	Mode	Categories	Freq	(%)
					36
			Strongly Agree (SA)	13	26.0
			Strongly Disagree (SD)	3	6.0
3. Does NSFAS motivate students academically?	Agree (A)	283	Agree (A)	283	56.49
			Disagree (D)	14	2.79
			Neutral (N)	124	24.75
			Strongly Agree (SA)	71	14.17
			Strongly Disagree (SD)	9	1.80
4. Do students who have received NSFAS perform better academically?	Agree (A)	232	Agree (A)	232	46.31
			Disagree (D)	31	6.19

Variable	Mode	Mode	Categories	Fr eq	(%)
			Neutral (N)	1 9 0	3 7 .9 2
			Strongly Agree (SA)	4 1	8 .1 8
			Strongly Disagree (SD)	7	1 .4 0
			Agree (A)	6 4	1 2 .7 7
			Disagree (D)	1 0 3	2 0 .5 6
5. Do students without NSFAS under perform academically	Neutral (N)	250	Neutral (N)	2 5 0	4 9 .9 0
			Strongly Agree (SA)	1 9	3 .7 9
			Strongly Disagree (SD)	6 5	1 2 .9 7
6. Do students under NSFAS all graduate with the best class of degrees?	Neutral (N)	201	Agree (A)	1 9 3	3 8 .5 2

Variable	Mode	Mode	Categories	Freq	(%)
			Disagree (D)	68	13.57
			Neutral (N)	201	40.12
			Strongly Agree (SA)	21	4.19
			Strongly Disagree (SD)	18	3.60

Source: Fieldwork

4.6.5 Analysis on the correlation between NSFAS bursaries and academic performance

This section deals with the cross-tabulation analysis of all the six items. The analysis was done testing each item to ascertain the independence of respondents based on NSFAS bursary application status.

Table 4.11, Figures 4.4, 4.5 and 4.6 explicitly provide cross-tabulation analysis of the impact of NSFAS on students' academic performance. Table 4.12 represents the distribution of respondents regarding the impact of NSFAS on students' academic performance. Figure 4.4 represents those who were beneficiaries of NSFAS. It shows majorly agreed that NSFAS, indeed, affected their academic performance in tertiary institution. Figures 4.5 and 4.6 represent those whose applications were declined and those who did not apply for the bursary because they had other bursaries and eligibility issues. The results indicated that the majority of the students neither agreed nor disagreed that NSFAS had an impact on their academic performance. The reasons for their responses were not farfetched since they did not personally experience the impact

of the bursary as they were not beneficiaries of the scheme. Consequently, Table 4.12 provides details on non-parametric chi-square test of independence and degree of association as measured by Crammer V.

Table 4.11: Analysis on correlation between NSFAS bursaries and academic performance

		Response					Total
		Strongly Disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly Agree (SA)	
Approved	Does the availability of NSFAS to students prevent failures?	3 (0.8%)	167 (43.2%)	57 (14.7%)	139 (35.9%)	21 (5.4%)	387 (100.0%)
	Does provision of financial aid to students ensure success?	1 (0.3%)	252 (65.1%)	24 (6.2%)	97 (25.1%)	13 (3.4%)	387 (100.0%)
	Does NSFAS motivates students academically?	7 (1.8%)	11 (2.8%)	47 (12.1%)	256 (66.1%)	66 (17.1%)	387 (100.0%)
	Do students who have received NSFAS perform better academically?	5 (1.3%)	27 (7.0%)	111 (28.7%)	207 (53.5%)	37 (9.6%)	387 (100.0%)
	Do students without NSFAS under perform academically	26 (6.7%)	73 (18.9%)	222 (57.4%)	53 (13.7%)	13 (3.4%)	387 (100.0%)
	Do students under NSFAS all graduate with the best class of degrees?	12 (3.1%)	58 (15.0%)	120 (31.0%)	179 (46.3%)	18 (4.7%)	387 (100.0%)
Total		54 (2.3%)	588 (25.3%)	581 (25.0%)	931 (40.1%)	168 (7.2%)	2,322 (100.0%)
Declined	Does the availability of NSFAS to students prevent failures?	1 (1.2%)	25 (30.9%)	45 (55.6%)	9 (11.1%)	1 (1.2%)	81 (100.0%)
	Does provision of financial aid to students ensure success?	2 (2.5%)	37 (45.7%)	40 (49.4%)	2 (2.5%)	0 (0.0%)	81 (100.0%)

		Response					Total
		Strongly Disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly Agree (SA)	
	Does NSFAS motivates students academically?	2 (2.5%)	3 (3.7%)	49 (60.5%)	22 (27.2%)	5 (6.2%)	81 (100.0%)
	Do students who have received NSFAS perform better academically?	2 (2.5%)	4 (4.9%)	50 (61.7%)	22 (27.2%)	3 (3.7%)	81 (100.0%)
	Do students without NSFAS under perform academically	25 (30.9%)	19 (23.5%)	23 (28.4%)	9 (11.1%)	5 (6.2%)	81 (100.0%)
	Do students under NSFAS all graduate with the best class of degrees?	6 (7.4%)	8 (9.9%)	56 (69.1%)	9 (11.1%)	2 (2.5%)	81 (100.0%)
Total		38 (7.8%)	96 (19.8%)	263 (54.1%)	73 (15.0%)	16 (3.3%)	486 (100.0%)
Not Applicable	Does the availability of NSFAS to students prevent failures?	0 (0.0%)	3 (9.1%)	28 (84.8%)	2 (6.1%)	0 (0.0%)	33 (100.0%)
	Does provision of financial aid to students ensure success?	0 (0.0%)	4 (12.1%)	28 (84.8%)	1 (3.0%)	0 (0.0%)	33 (100.0%)
	Does NSFAS motivates students academically?	0 (0.0%)	0 (0.0%)	28 (84.8%)	5 (15.2%)	0 (0.0%)	33 (100.0%)
	Do students who have received NSFAS perform better academically?	0 (0.0%)	0 (0.0%)	29 (87.9%)	3 (9.1%)	1 (3.0%)	33 (100.0%)
	Do students without NSFAS under perform academically	14 (42.4%)	11 (33.3%)	5 (15.2%)	2 (6.1%)	1 (3.0%)	33 (100.0%)

		Response					Total
		Strongly Disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly Agree (SA)	
	Do students under NSFAS all graduate with the best class of degrees?	0 (0.0%)	2 (6.1%)	25 (75.8%)	5 (15.2%)	1 (3.0%)	33 (100.0%)
Total		14 (7.1%)	20 (10.1%)	143 (72.2%)	18 (9.1%)	3 (1.5%)	198 (100.0%)
Total	Does the availability of NSFAS to students prevent failures?	4 (0.8%)	195 (38.9%)	130 (25.9%)	150 (29.9%)	22 (4.4%)	501 (100.0%)
	Does provision of financial aid to students ensure success?	3 (0.6%)	293 (58.5%)	92 (18.4%)	100 (20.0%)	13 (2.6%)	501 (100.0%)
	Does NSFAS motivates students academically?	9 (1.8%)	14 (2.8%)	124 (24.8%)	283 (56.5%)	71 (14.2%)	501 (100.0%)
	Do students who have received NSFAS perform better academically?	7 (1.4%)	31 (6.2%)	190 (37.9%)	232 (46.3%)	41 (8.2%)	501 (100.0%)
	Do students without NSFAS under perform academically	65 (13.0%)	103 (20.6%)	250 (49.9%)	64 (12.8%)	19 (3.8%)	501 (100.0%)
	Do students under NSFAS all graduate with the best class of degrees?	18 (3.6%)	68 (13.6%)	201 (40.1%)	193 (38.5%)	21 (4.2%)	501 (100.0%)
Total		106 (3.5%)	704 (23.4%)	987 (32.8%)	1,022 (34.0%)	187 (6.2%)	3,006 (100.0%)

Source: Fieldwork

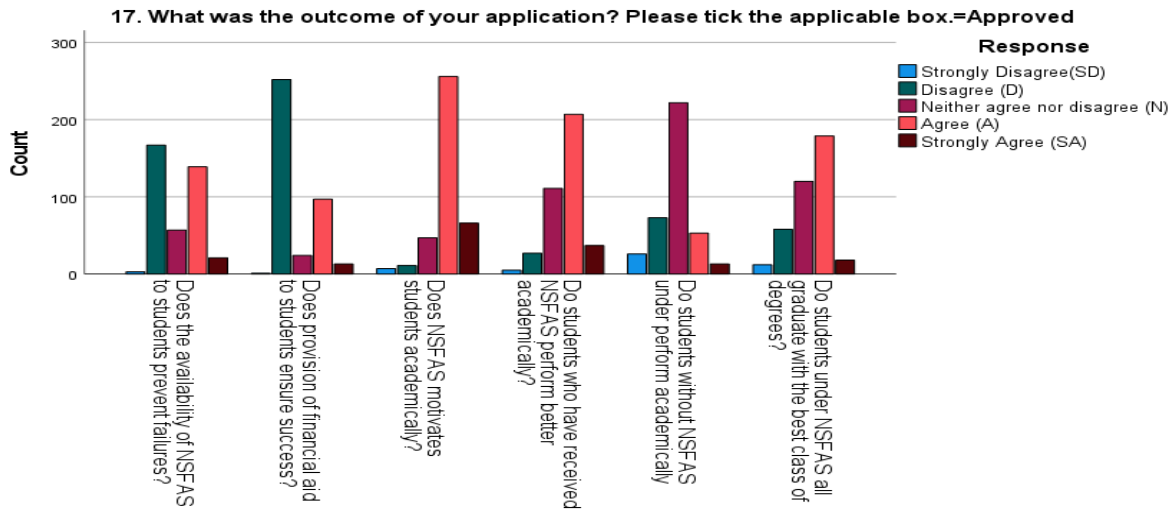


Figure 4.3: Approved responses cross tabulation analysis on correlation between NSFAS bursaries and academic performance

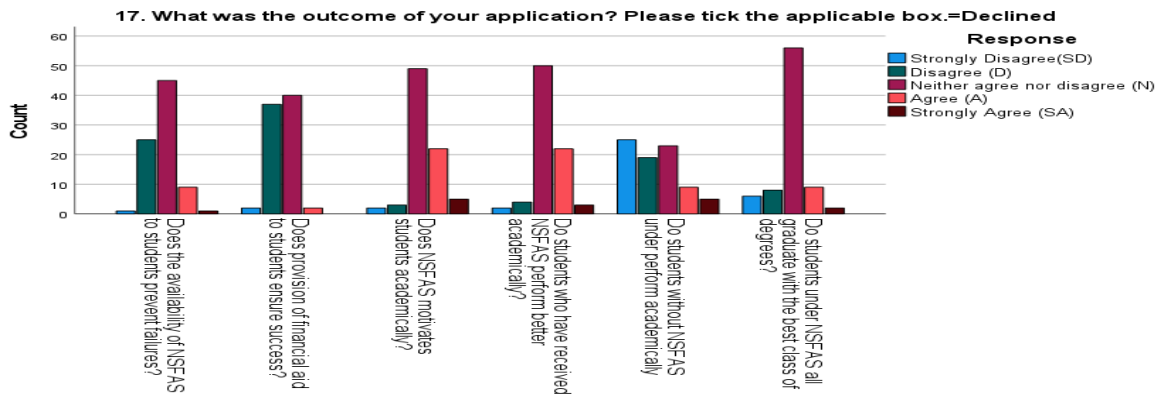


Figure 4.4: Declined response cross tabulation analysis on correlation between NSFAS bursaries and academic performance

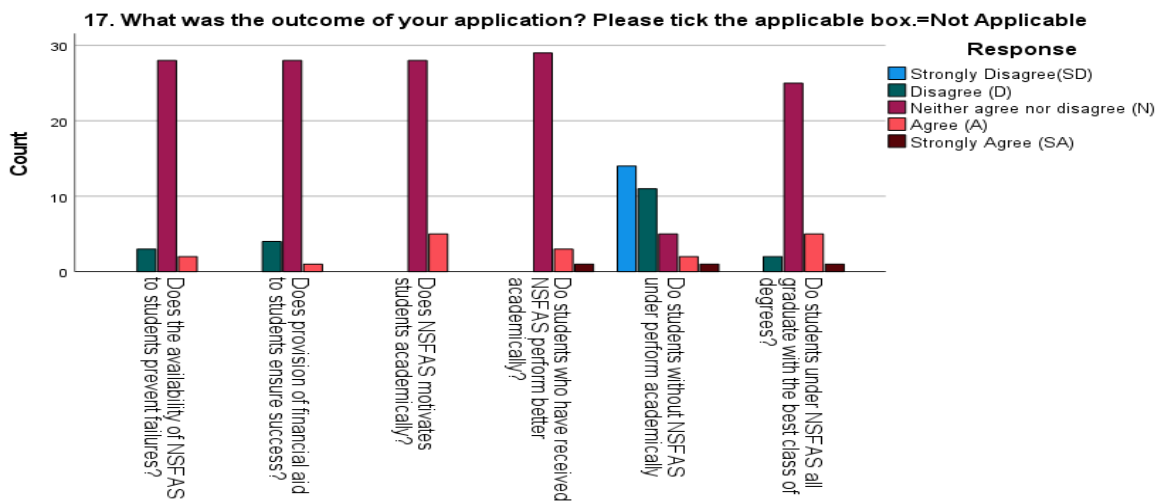


Figure 4.5: Cross-tabulation analysis on correlation between NSFAS bursaries and academic

performance on not applicable responses

Table 4.12 shows that the Chi-square value is 1,030.424, which suggests a statistically significant impact of NSFAS on students' academic performance. This implies that students' responses were based on their experience as it is difficult to express perception on what is not based on one's experience. Therefore, students, indeed, revealed their experiential knowledge in relation to this study, which could be used to draw inferences on policies that might enhance NSFAS activities in South Africa. The chi-square value: $\chi^2(20, n = 501) = 1,030.424$, $p\text{-value} = 0.000$, Cramer's $V = 0.293$. The Cramer's V result in Table 4.13, as recommended by (Gravetter & Wallnau, 2004; Pallant, 2011) confirmed a moderately strong effect of student application status on their perception on availability of NSFAS as students' failure prevention measures.

Table 4.12: Test of independence between the student application status and their perception on the impact of NSFAS on students' academic performance

Application Status		Value	df	Asymptotic Significance (2-sided)
Approved	Pearson Chi-Square	1,007.739 ^b	20	.000
	Likelihood Ratio	986.163	20	.000
	Linear-by-Linear Association	21.891	1	.000
	N of Valid Cases	2322		
Declined	Pearson Chi-Square	175.156 ^c	20	.000
	Likelihood Ratio	164.822	20	.000
	Linear-by-Linear Association	.011	1	.916
	N of Valid Cases	486		
Not Applicable	Pearson Chi-Square	120.911 ^d	20	.000
	Likelihood Ratio	109.374	20	.000
	Linear-by-Linear Association	3.603	1	.058
	N of Valid Cases	198		
Total	Pearson Chi-Square	1,030.424^a	20	.000
	Likelihood Ratio	995.039	20	.000

Application Status		Value	df	Asymptotic Significance (2-sided)
	Linear-by-Linear Association	14.967	1	.000
	N of Valid Cases	3,006		

Table 4.13: Structural Equation Model Analysis correlation between NSFAS bursaries and academic performance

Symmetric Measures				
Application Status			Value	Approximate Significance
Approved	Nominal by Nominal	Phi	.659	.000
		Cramer's V	.329	.000
		Contingency Coefficient	.550	.000
	N of Valid Cases		2,322	
Declined	Nominal by Nominal	Phi	.600	.000
		Cramer's V	.300	.000
		Contingency Coefficient	.515	.000
	N of Valid Cases		486	
Not Applicable	Nominal by Nominal	Phi	.781	.000
		Cramer's V	.391	.000
		Contingency Coefficient	.616	.000
	N of Valid Cases		198	
Total	Nominal by Nominal	Phi	.585	.000
		Cramer's V	.293	.000
		Contingency Coefficient	.505	.000
	N of Valid Cases		3,006	

Source: Fieldwork

4.6.6 Structural Equation Model Analysis correlation between NSFAS bursaries and academic performance

The two preceding analyses on impact of NSFAS on students' academic performance in tertiary institutions explain responses of the students to the variable under consideration and test the independence of the variable to the application status of the students. However, there is a need to conduct advanced statistical analysis to draw inferences on the magnitude and direction of impact of NSFAS on students' academic performance in the selected tertiary institution in the Western Cape. The analysis of structural equation model revealed in Figure 4.7 illustrates the details. Figure 4.7 illustrates the structural equation model on the impact of NSFAS on students' academic performance in the tertiary institution. Only one hypothesis was proposed to effectively provide an answer to the third research question, stated as follows: there is no statistically significant impact of NSFAS on students' academic performance in tertiary institution.

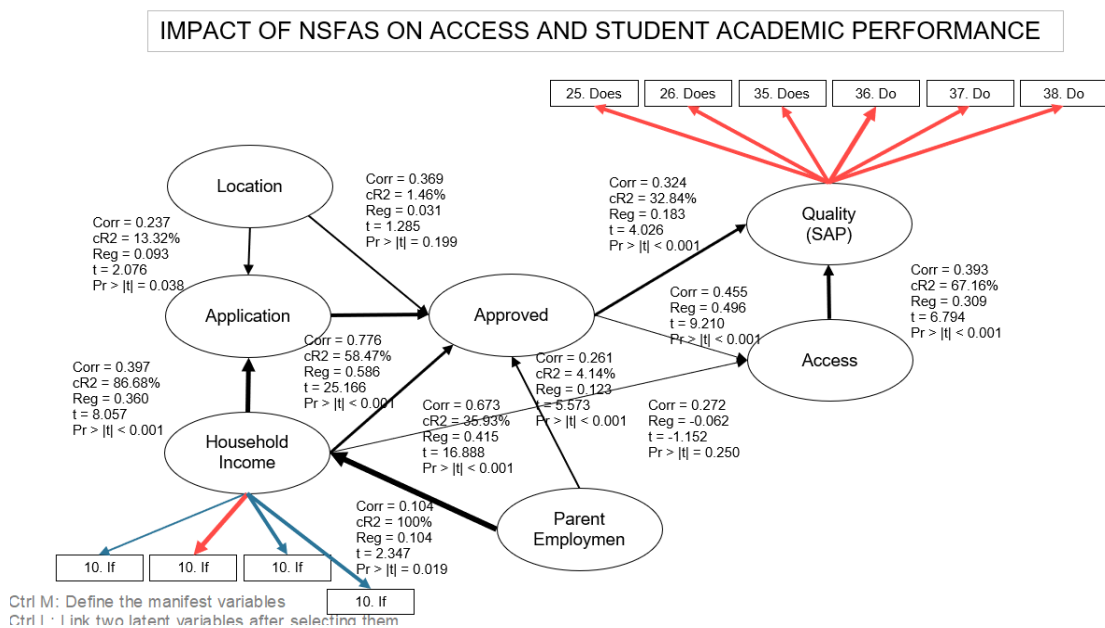


Figure 4.6: Structural Equation model

Table 4.14: Structural estimates (Hypotheses testing).

Hypotheses	Beta	SE	t-value
H1: Application Approval Status -> Perceived Student Academic Performance	.183**	.046	4.026
H2: Access to Tertiary Institution -> Perceived Student Academic Performance	.309**	.046	6.794

Note. Critical t-values. **2.58 ($p < .01$). ** indicated significant with probability level less than 1%.

In Table 4.14, the model predictive measure gives a satisfactory result based on the R^2 values of 0.181. Falk and Miller (1992) suggest that R^2 must be greater than 0.10 in order for the model to have predictive relevance. The model reveals that access to NSFAS, indeed, has a statistically significant impact on students' access and a statistically significant impact on students' performance in a tertiary institution. The study builds on the theory of planned behaviour, which explains perception as a major predictive measure of behaviour as captured in this study to be performance. The result revealed that NSFAS' impact increased the probability of students performing better by 18% when they are granted access to NSFAS. Also, the direction of the result is positive, which indicates that NSFAS, indeed, positively impacted on student academic performance in the selected tertiary institution in the Western Cape Province.

The structural equation modelling of XLSTAT provides a unique tool to visually understand the importance and performance of an explanatory variable. Figure 4.7 presents an importance-performance matrix analysis of the impact of NSFAS on students' access to tertiary institution. Table 4.14 virtually displays students' decision to apply for NSFAS (NSFAS Application) and application approved status (Application Approval) at the top right corner of the IPMA chart, which indicated a high level of both importance and performance of NSFAS application and its successful approval as major determinant factors for students having access to tertiary institutions. However, an additional variable was added to the model of impact of NSFAS on students' access to tertiary institution. The variable captured the channels through which the students received information about the success or failure of their applications. The IMPA chart revealed that channels of information, mainly either by email (Internet based) or SMS, are not strong determinant of access in tertiary institutions.

4.7 FINANCIAL AID STAFF JOB ANALYSIS AND ADMINISTRATION

In Section C of the questionnaire, respondents were asked to provide data on their positions and responsibilities in the financial aid office of the selected institution. This was important as the staff were instrumental in providing answers to the main research question and sub-questions of the study. This section was designed mainly to be completed by financial aid staff only. (See Appendix B). Demographic data requested from the financial aid staff included: gender, age group they belong, the campus they are based, the period they have been employed by the institution, positions, and their highest qualifications. This data was meant to ensure that only appropriate respondents were selected to participate in the survey and that those selected had different characteristics to minimise non-response bias.

Table 4.15: Demographics of the Financial Aid Staff

Variable	Responses				
	Mode	Mode	Categories	Freq	(%)
What is your gender?	Male	3	Male	3	75
			Female	1	25
Which age group do you belong to?	Above 32 Years	4	Above 32 Years	4	100
Please indicate your campus?			District Six	1	25
			Mowbray	1	25
			Wellington	1	25
			Athlone	1	25
What is your current occupation?	Financial Aid Officer	4	Financial Aid Officer	4	100
How long you have been in this institution?	6-10 Years	2	6-10 years	2	50
		1	1-5 years	1	25
		1	Above 10 Years	1	25
What is your highest qualification?	Degree	2	Degree	2	50
	Diploma	2	Diploma	2	50

Source: Fieldwork

The responses from the four staff members were categorised into three themes. These were:

- Correlation between NSFAS bursaries and academic performance.
- Challenges that inhabit students' access to NSFAS bursaries.
- Measures that can be put in place to ameliorate those factors, if any, that affect students' access to NSFAS bursaries.

4.7.1 Correlation between NSFAS bursaries and academic performance

Responses to the question on how NSFAS bursaries had an impact on students' academic performance were obtained from four financial aid officers when the questionnaire was sent to the Director of Financial Aid Office via email. The financial aid officers explained that:

- The financial aid office faces challenges when making disbursements to students. These challenges interfered with students' academic performance as the disbursements are sometimes made later than expected, making it difficult for the students to receive all the required resources before the start of the academic year.
- They attempt to distribute the allowances to qualifying students within one week from the date the students signed the bursary agreements, however there were instances when that did not happen because the funds were not yet available, while some students had to wait even longer because of delay in processing all the documentation.
- Students whose applications were unsuccessful are informed of the outcome, but no reasons were given. It is only when students go to the financial aid office or contact the NSFAS head office directly that they are given the reasons for their applications being declined.
- The Financial Aid Office does not have any alternative funding for students whose applications were not approved. Rather, students have to apply for other bursaries and loans on their own.
- Students sometimes provide inactive and incorrect banking details, making it difficult for the transferring unit to make disbursements on time.
- Pending queries from NSFAS servicing team causes delay in allocation.

4.7.2 Challenges that inhabit students' access to NSFAS bursaries

The second theme asked about challenges that inhibit students' access to NSFAS bursaries, which the Director and the staff in the Financial Aid Office experienced with the administration of NSFAS application process. The financial aid staff highlighted that:

- The most important challenge was that requests for funding far outstripped the money available and the institution could not make up the shortfall.
- Communication with prospective students and other stakeholders was a challenge. In some cases, students did not know about bursary funding and the existence of NSFAS bursaries.
- Incomplete applications were often submitted (that is, those not having all the necessary documentation).
- Students who did not sign the bursary agreements when they were asked to do so because they did not check their emails and portals.
- Some students who fell outside the threshold income bracket that allows for financial assistance from NSFAS (which is one of the main criteria of the means test).
- Students did not read their emails and did not respond accordingly.
- Sometimes, students got approved on the NSFAS portal, however it did not reflect on the funded list because of poor communication between NSFAS head office and the institution.
- Students appeared in the funded list at the beginning of the year however were later rejected by NSFAS because of incomplete documents and newly found information such as affordability.
- The institution would load the registration template of the student, however NSFAS would take time to generate the NSFAS Bursary Agreement for the students.
- Students were sometimes linked to two institutions at NSFAS head office because they registered with those two institutions but failed to deregister from one.

The responses provided by the financial aid staff suggested that many students were forced out of the higher education system as a result of financial aid challenges, and

that a high number of students from low socio-economic backgrounds fail to complete higher education courses after gaining access. The respondents further noted that there was neither equitable access nor retention in higher education. All these issues are at the core of student funding, which is a key driver for access and participation by most previously disadvantaged students.

4.8 THEORETICAL JUSTIFICATION ON ACCESS TO TERTIARY EDUCATION BEFORE AND AFTER THE INTRODUCTION OF NSFAS

This section analyses secondary data from the National Financial Aid Scheme and the Department of Higher Education and Training on access to tertiary education before and after the introduction of NSFAS. Tables 4.16 and 4.17 expose inequality of access to opportunities for higher education, which had an impact on participation rates in the higher education system before the introduction of NSFAS. As can be seen from Table 4.16, there was, indeed, only a trickle of Black South Africans going into higher education in the 1950s. The racial breakdown of universities in 1958 was as follows:

Table 4.16: Enrolment in South African universities 1958

University	White	Coloured	Indian	Black	Total
Orange Free State	1,709	0	0	0	1,709
Potchefstroom	1,474	0	0	0	1,474
Pretoria	6,324	0	0	0	6,324
Stellenbosch	3,694	0	0	0	3,694
Cape Town	4,408	388	127	37	4,960
Natal	2,530	31	378	188	3,122
Witwatersrand	4,756	22	158	73	5,009
Rhodes	1,098	0	0	0	1,098
South Africa	6,144	204	601	1,179	8,128
Fort Hare	0	59	59	320	438
Total	32,137	704	1,318	1,797	35,956
Percentage of total	89.4%	2.0%	3.7%	5.0%	100%

Source: World Bank: Higher Education Quality Committee and the Council on Higher Education (2006)

Table 4.17 depicts the number of students from three different ethnic groups that applied for access to tertiary education. Black South Africans were the most denied group because of race, socio-economic status, and inability to pay for tuition fees, accommodation and living expenses.

Table 4.17: Number of previously disadvantaged students granted permission to study at white universities 1980-1983

Ethnic Group	Year	Applicants	Granted	%	Refused	%
<i>Black</i>	1980	1,046	410	39.2%	636	60.8%
	1981	1,391	667	48.0%	724	52.0%
	1982	1,545	723	46.8%	822	53.2%
	1983	2,605	954	36.6%	1 651	63.4%
<i>Coloured</i>	1980	1,175	989	84.2%	186	15.8%
	1981	1,221	1,126	92.2%	95	7.8%
	1982	1,314	1,172	89.2%	142	10.8%
	1983	1,371	1,255	91.5%	116	8.5%
<i>Indian</i>	1980	1,013	919	90.7%	94	9.3%
	1981	1,049	924	88.1%	125	11.9%
	1982	1,724	1,374	79.7%	350	20.3%
	1983	1,679	1,323	78.8%	356	21.2%

Source: World Bank Higher Education Quality Committee and the Council on Higher Education (2006)

Table 4.18 provides the number of students financially supported and amounts paid out in awards by NSFAS from 1996 (when it was founded) to 2021. On average, 255,733 students were assisted each year and it is clear that an increasing number of students are supported each year. When NSFAS was established in 1996, the number of students that were assisted stood at 67,641. This significantly increased to 767,001 in 2020/21 annual report. The amount paid out in terms of awards has increased substantially over the years, from a mere R333.30 million in 1996 to R37.1 billion in 2021. Over the period 1996-2021, R171 billion was granted to needy students in the form of NSFAS awards. The maximum amount a student could receive in 1999 was R13,300; this increased substantially to R93,400 in 2020.

Table 4.18: Number of students assisted, amount paid out by NSFAS: 1996-2021 and state budget 1996-2021

Year	Number of Students	Amount paid out by means of disbursements
1995/96	67,641	333.3 million
1996/97	63,272	350.9 million
1997/98	67,558	394.5 million
1998/99	68 363	441.1 million
1999/00	72,038	510.8 million
2000/01	80,513	635.1 million
2001/02	86,147	733.5 million
2002/03	96,552	893.7 million
2003/04	98,813	985.0 million
2004/05	106,852	1. 2 billion
2005/06	107,586	1.7billion
2006/07	113,519	1.8 billion
2007/08	117,766	2.4 billion
2008/09	135,208	3.2 billion
2009/10	191,040	3.2 billion
2010/11	210,592	3.7 billion
2011/12	332,187	5.9 billion
2012/13	383,114	7.7 billion
2013/14	416,365	8.7 billion
2014/15	414,802	8.9 billion
2015/16	414,949	9.3 billion
2016/17	451,306	12.4 billion
2017/18	460,341	14.1 billion
2018/19	586,763	21.1 billion
2019/20	740,037	27.8 billion

Year	Number of Students	Amount paid out by means of disbursements
2020/21	765,740	37.1 billion

Source: NSFAS Annual Reports and Department of Higher Education and Training (1995-2021)

Figure 4.8 provides analysis on the number of students enrolled in public higher education institutions from 2000 to 2016. The percentage of enrolled students increased by 38% between 2000 and 2008, then by 22% between 2008 and 2016. Students started to gain more access into tertiary institutions after the introduction of NSFAS as funding was available for them to pay for their tuition fees, accommodation and living expenses.

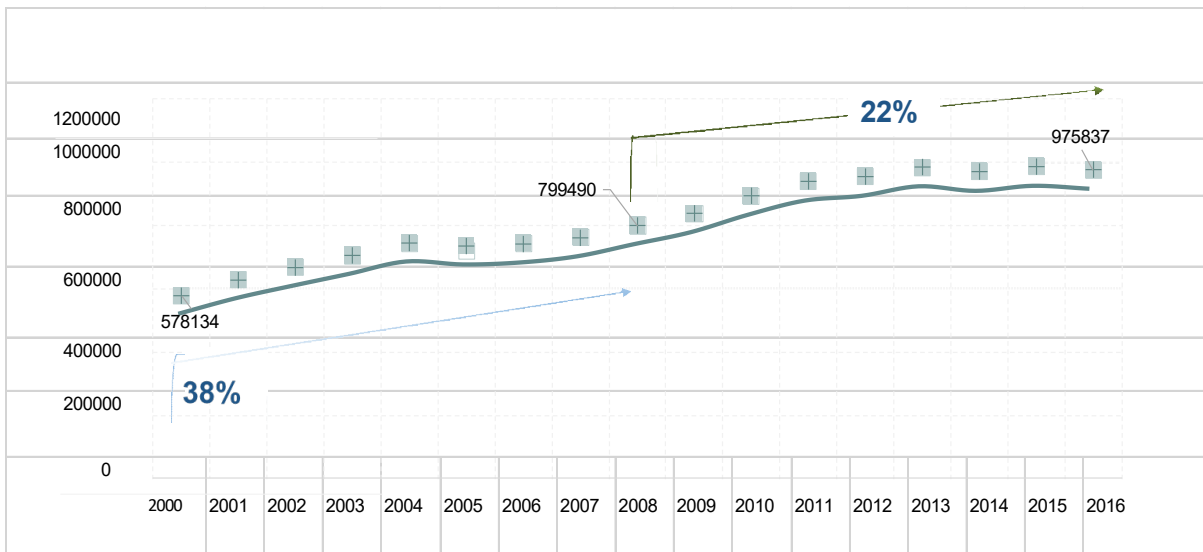


Figure 4.8: Number of students enrolled in public higher education institutions from 2000-2016

4.9 SUMMARY

The aim of this study was to investigate the impact of the National Student Financial Aid Scheme (NSFAS) on students' access to higher education at a selected university in the Western Cape. The chapter analysed and discussed the results of the impact of NSFAS on students' access to tertiary education, challenges that hinder students from accessing NSFAS bursaries and the impact of NSFAS bursaries on students' academic performance. The results of the analysis showed that 62.68% of the sampled students were positively affected by NSFAS to develop and advance their studies, whereas 20.56% of students said NSFAS did not help them advance academically. About seventeen percent (16.77%) of students who participated in the research said they had been unable to receive funding from the scheme because of academic performance and poor NSFAS capturing of their details and documentation.

From the study, it was understood that South Africa faces a large and growing demand for financial support for tertiary education due to a variety of factors, including pressure to expand the higher education system to address historical inequalities in access to higher education, the highly unequal distribution of income in the country and widespread poverty. These difficulties can only be overcome by ensuring that student funding is sufficient to meet the needs of students targeted by the scheme. In addition, funding must be based on reliable financial modelling, which will require a considerable amount of data that is not readily available.

With regard to challenges that hinder students from accessing NSFAS bursaries, the results indicated that entry into higher education is a daunting proposition to many students as they have to face new social experiences, culture, and new ways of doing things at university. Lack of information is one and the biggest challenge that inhibits students from accessing NSFAS bursaries as most respondents indicated that they came from rural areas and have no access to the internet where applications are normally advertised. Regarding the impact of NSFAS on students' academic performance, the results revealed that some of the student challenges corresponded with some of the financial aid staff difficulties. In fact, the challenges were directly related to the fact that students were financially needy and did not have the necessary financial resources at the start of the academic year to function as 'normal students' who could concentrate on their academic work.

Furthermore, policymakers will have to make difficult policy decisions regarding the future size and shape of the higher education sector, as well as financial priorities. However, before such decisions are made, it must be informed of the existing state of financial aid in the country. The study also found that not all students, particularly first-years, were aware of the existence of NSFAS or how to apply for financial aid. As a result, more enlightenment on funding opportunities is required, especially for the new students. It is quite clear that NSFAS indeed, to some extent, had a positive impact on students' access to tertiary education and created a unique experience for beneficiaries, which was statistically and significantly reflected in the findings. Further, the study also found that students' access to the funding scheme could be enhanced through effective and early communication to potential beneficiaries and efficient disbursement when funding is most needed by students.

Chapter 5 provides the summarises key findings, provides a conclusion, discusses the contribution of the study, its limitations and makes suggestions for further research.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 INTRODUCTION

The previous chapter outlined the presentation, analysis and discussion of results, This study investigated the influence of NSFAS on enrolment in higher education in a selected university in the Western Cape as well as whether financial assistance from NSFAS addressed equity in higher education. It was motivated by a lack of research in South Africa on the impact of NSFAS on students' access to tertiary education. To achieve this aim, an online survey was conducted.

This chapter summarises the major results and draws conclusions on how the scheme has influenced access to tertiary education for many students. The results of this research are important since they provide essential information that could assist government to make informed decisions about financial aid for students in higher education. They could also enlighten policymakers on the effectiveness of the financial aid scheme to students.

The chapter proceeds with a re-statement, in Section 5.2, of the research problem, research question, sub-questions and objectives outlined in Chapter 1. This is followed by a recommendation and summary of the literature review presented in Chapter 2, Section 5.3. Section 5.4 presents a summary and conclusion of the research design and methodology used in the study as presented in Chapter 3. Section 5.5 provides a summary and conclusion of the analysis and discussion of results of the study presented in Chapter 4. Section 5.6 addresses factors affecting students' access to NSFAS bursaries and academic performance, while Section 5.7 outlines general recommendations. Section 5.8 presents contribution and significance of this study, followed by the limitation of the study in Section 5.9. Finally, Section 5.10 provides suggestions for further research.

5.2 SUMMARY ON RESEARCH PROBLEM, MAIN QUESTION, SUB-QUESTIONS AND OBJECTIVES

The problem underpinning the study is that NSFAS has been widely criticised as being slow, inconvenient, and ineffective in terms of providing for all needy students' tertiary education financial needs (Fiske & Ladd, 2004:116; Motala, 2005:80). Therefore, the purpose of the study was to investigate the impact of financial aid on students' access

to higher education, with reference to a selected university in the Western Cape. The study was undertaken to fill the gap in the literature on the impact of NSFAS on students' access to tertiary education. To revisit the research question, it is re-stated here as follows:

- To what extent has the National Student Financial Aid Scheme influenced students' enrolment in higher education in a selected university in the Western Cape?

To address the research question comprehensively, the following sub-questions were formulated:

- What is the impact of NSFAS on students' access to tertiary education?
- What are the challenges that hinder students' access to NSFAS bursaries?
- How does the NSFAS bursary impact on students' academic performance?

To fill the gap, evident in limited research according to the researcher, on the impact of NSFAS on students' access to tertiary education, the following objectives were formulated, to:

- examine the impact of NSFAS on students' access to tertiary education;
- investigate the challenges that hinders students from accessing NSFAS bursaries; and
- examine the impact of NSFAS on students' academic performance.

5.3 RECOMMENDATION AND SUMMARY OF LITERATURE REVIEW ON THE IMPACT OF NSFAS ON STUDENTS' ACCESS TO TERTIARY EDUCATION

The literature review, carried out in Chapter 2, provided the first recommendation to analyse and describe literature findings of the study prior to determining the impact of NSFAS on students' access to tertiary education. The analysis and description identified gaps in the literature regarding the influence of financial aid on students' access to tertiary education. The reviewed findings further identified gaps in the literature on challenges inhibiting students' access to tertiary education as well as gaps relating to the impact of NSFAS on students' academic performance. There have been very few earlier studies according to the researcher on the impact of NSFAS on students' access to tertiary education at the selected Western Cape university. As a result, this section examined previous research on the subject undertaken in other

countries as well as in South Africa. Based on the review of the literature, the following gaps were identified:

- Other studies conducted did not cover all the objectives covered by this research.
- Many of the studies did not focus on the impact of NSFAS on students' access to higher education; instead, they investigated various issues related to NSFAS in general.
- Some of the studies were in the form of case studies, or employed a limited sample size, a scenario that undermined the generalisability of their findings regarding the impact of NSFAS;

Given these gaps identified in the literature, there was a need to conduct this study to determine the impact of NSFAS on students' access to tertiary education in a selected university in the Western Cape.

5.4 RECOMMENDATION ON RESEARCH DESIGN AND METHODOLOGY

This study described the quantitative research methodology used to collect the data needed for the investigation to meet the objectives of the study. The quantitative description commenced by discussing and justifying the positivist paradigm adopted, followed by a justification of the survey questionnaire strategy used. The quantitative study described the research population and sampling technique employed as well as the design of the questionnaire.

A pilot survey conducted to ensure that the questionnaire was clear, concise, and understandable was discussed as well as measures taken to ensure reliability and validity of the research instrument. Finally, limitations of the survey questionnaire method adopted, measures taken to overcome them as well as ethical considerations regarding this study were discussed.

Based on an elaborate discussion of the research methodology and measures taken to ensure reliability and validity, it was concluded that the methodology outlined in Chapter 3 was appropriate for addressing the research objectives of the study.

5.5 RECOMMENDATION ON ANALYSIS AND DISCUSSION OF RESULTS

In Chapter 4, results of the data collected via questionnaire and analysed to determine the impact of NSFAS on students' access to tertiary education in a selected university

in the Western Cape were presented and discussed. The results presented and discussed showed that NSFAS funding impacted on students, especially when they were trying to access tertiary education funding. Several challenges hindered students from accessing NSFAS bursaries, which impacted on students' academic performance. Regarding the impact of NSFAS on students' access to tertiary education, almost 60% of the students either agreed or strongly agreed to the statement that NSFAS, indeed, positively influenced their access to tertiary education, which indicated the true perception of the respondents of whom more than over 90% were beneficiaries of NSFAS. Concerning challenges that inhibit students from accessing NSFAS bursaries, the results showed that more than 35% faced challenges in accessing NSFAS bursaries. The main inhibiting factors were a lack information (23.36%) and complexity of NSFAS application (13.67%). With respect to the impact of NSFAS on students' academic performance, the results indicated that 62.68% of students stated NSFAS helped them to advance academically, while 20.56% stated that NSFAS did not help them to advance academically. This is also the case in Kenya as the state was seen to be able to guarantee equality of opportunity most effectively through free provision (Ngolovoi, 2008).

5.6 ADDRESSING FACTORS AFFECTING STUDENTS' ACCESS TO NSFAS BURSARIES AND ACADEMIC PERFORMANCE

Financial aid officers suggested measures that could be put in place to ameliorate factors that affect students' access to NSFAS bursaries and academic performance, namely:

- The NSFAS Head Office should release more funds to the institution at the beginning of the academic year.
- The university needs to find alternative funding in order to bridge the shortfall at the beginning of the year so that more students could be assisted sooner.
- Students must adhere to the application due dates and submit all required documentation on time.
- NSFAS Head Office must ensure that information in the NSFAS portal corresponds with what is on the funded list.
- NSFAS must be 100% sure of students approved at the beginning of the year.

- NSFAS Bursary Agreement must be generated as soon as the registration template is loaded to avoid delays.
- NSFAS needs to put measures in place to ensure that students are not linked to many institutions.
- Being able to work on an offline system that will update at the later stage when the system is back live.
- Students should regularly check their emails daily for updates and information.
- Students should go to the financial aid office to enquire about anything they do not understand or are uncertain of in order to receive proper information and guidance.
- Frequent correspondence from NSFAS Head Office with regard to pending queries is essential.
- Improvement of the ICT department.
- Private sector should play an important role in supporting individual students.
- Ongoing orientation to university life and institutional support systems.
- The NSFAS Head Office needs to release more funds at the beginning of the year.

5.7 GENERAL RECOMMENDATIONS

Based on these results and interpretation thereof, the following recommendations are made:

- It emerged from the study that South Africa faces a big and growing demand for financial support for tertiary education because of a variety of factors such as pressure to expand the higher education system to address historical inequalities in access to higher education, highly unequal distribution of income and widespread poverty. This difficulty can be overcome only by ensuring that funding is sufficient to meet the needs of students targeted by the scheme. This must be based on reliable financial modelling, which will require a considerable amount of data that is not readily available.
- The study also found that not all students, particularly first-years, are aware of the existence NSFAS or how to apply for financial aid. As a result, more enlightenment of funding opportunities is required especially for the new students.

- Higher education institutions are not involved in the allocations made by the NSFAS Head Office. It is recommended that the NSFAS Head Office liaise with higher education institutions before deciding on an amount so that institutions communicate their specific needs and challenges. This will ensure that institutions receive adequate allocations for all their financially needy students.
- Underfunding, top slicing, and delayed transfer of the allocated amount to the university were problematic and negatively impacted on students' academic performance. Consequently, it is recommended that the university finds alternative funding options and also liaise with big businesses nationally and internationally to find more bursaries and other funding opportunities for students.
- Furthermore, students' access to the funding scheme should be enhanced through effective and early communication to potential beneficiaries and efficient disbursement at the time funds are most needed by students.

5.8 CONTRIBUTION AND SIGNIFICANCE OF THE STUDY

In the following subsections the contribution and significance of the study are discussed.

5.8.1 Contribution of the study

This study makes a valuable contribution to higher education literature. Firstly, it is the first study to investigate the impact of NSFAS on students' access to tertiary education in a specific South African university according to the researcher. As such, the thesis contributes to the literature by uniquely investigating the influence of NSFAS on student access in a critical however neglected sector. Secondly, students face various challenges linked to the cost of attending university, their inability to pay for education and difficulties in gaining access to financial resources. Thirdly, the study could contribute through its recommendations that might improve the NSFAS funding process to enable students concentrate on their studies without financial stress.

5.8.2 Significance of the study

The results of this study should be of significance to DHET, National Treasury, Department of Planning, Monitoring and Evaluation in the Presidency, NSFAS Head Office, and institutions of higher learning. It investigates how the financial assistance received from NSFAS, or a lack thereof, impact on the students' academic

performance and, in the long run, their retention and success, issues of interest to these entities. There are insufficient studies on financial aid issues in South Africa according to the researcher. It is, therefore, important for this gap be filled. Besides, the results of this study could be helpful to other researchers interested in and determined to further research the topic. The results are potentially important to boost the economy of South African as many graduates could be produced by universities to contribute to the issues revolving around the economy. Further, the study could assist South Africa to improve the level of governance and compliance and garner more sponsorship of and investment in the scheme.

5.9 LIMITATIONS OF THE STUDY

Although the results of this study provide valuable insights, the study has limitations highlighted as follows.

- Given that only a few studies have been conducted on the impact of NSFAS on students' access to tertiary education, the study was informed by limited literature. In addition, the study focused on only one selected university in the Western Cape. Accordingly, the results are not applicable to all Universities in South Africa.
- Student participants were mostly undergraduates. The inclusion of senior students who have experienced a full NSFAS cycle could have provided more data and added more insights to this investigation.
- Some obstacles were encountered while distributing the questionnaire to the respondents. Due to their potential participants' busy schedules and the impact of Covid-19 lockdown, it was difficult to get most of them to respond to the questionnaire. Furthermore, was the fact that respondents were not interviewed due to time constraints and Covid-19 disaster management regulations. Focus groups with the respondents could have provided richer data.
- These limitations, however, did not outweigh the valuable contribution made by this study to the body of knowledge on the impact of NSFAS on students' access to tertiary education.

5.10 SUGGESTIONS FOR FURTHER STUDIES

The limitations of the study present potential areas for future research, summarised as follows:

- This study aimed to make a modest contribution to the body of knowledge with regard to the impact of NSFAS on students' access to tertiary education, challenges that hinder students from accessing NSFAS bursaries, and the impact of NSFAS on students' academic performance. More research is needed to determine how different stakeholders could work together to ensure that the right to education of students from low socio-economic backgrounds are ensured through the provision of adequate financial assistance.
- The results were based on a sample of 501 students and four financial aid staff at one selected university. Future studies could use a larger sample size by including other institutions of higher learning to increase the generalisability of the results.
- This study used a mixed methods approach, with the quantitative method as dominant. A more qualitative-leaning study involving an in-depth case study could provide a deeper understanding of factors that inhibit students from accessing NSFAS bursaries.

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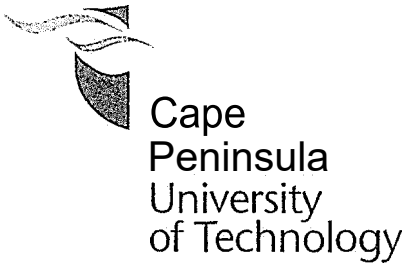
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APPENDIX A: PERMISSION LETTER



Office of the
Deputy Vice Chancellor:
Research, Technology
Innovation & Partnerships
Bellville Campus
P O Box 1906
Bellville 7535
Tel: 021-9596242
Email: SheldonM@cput.ac.za

02 October 2019

Mr Xolela Sokhweba

Department of Cost and Management
Accounting Faculty of Business and
Management Sciences
CPUT

Email: 214078000@mycput.ac.za

Dear Mr Sokhweba

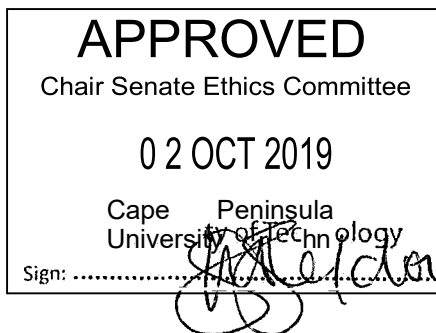
RE: PERMISSION TO CONDUCT RESEARCH AT CPUT

The Institutional Ethics Committee received your application entitled: "Impact of National Student Financial Aid Scheme on student's access to tertiary education in a selected university in the Western Cape" together with the dossier of supporting documents.

Permission is herewith granted for you to do research at the Cape Peninsula University of Technology.

Wishing you the best in your study.

Sincerely



PO Box 1906 Bellville 7535 South
Africa
086 123 2788

APPENDIX B: CONSENT LETTER



To whom it may concern

I..... do hereby consent to allow Xolela Sokhweba, a Cost and Management Accounting student at Cape Peninsula University of Technology to carry out his research project entitled **The Impact of NSFAS on Students' Access to Tertiary Education in a selected University in the Western Cape** which will involve myself as a participant. I allow him to conduct his survey with myself on a date that is suitable for both parties.

If you have any queries concerning this matter, kindly please contact me using the information provided below.

Name:

Occupation:

Email:

Phone:

Sincerely

APPENDIX C: QUESTIONNAIRE

The impact of National Student Financial Aid Scheme on students' access to tertiary education in a selected university in the Western Cape

Dear respondent, this is an academic exercise aimed at examining the challenges students face when they access the National Student Financial Aid Scheme bursaries. The data you provide is confidential. The questionnaire will take 10-30 minutes to complete.

SECTION A: BIOGRAPHICAL INFORMATION

Please tick the applicable box	
1. What is your gender?	
a. Male	1
b. Female	2
2. Which age group do you belong to?	
a. Between 18 and 20 Years	1
b. 21-23 Years	2
c. 24-26 Years	3
d. 27-29 Years	4
e. 30-32 Years	5
f. Above 32 Years	6
3. Please indicate your campus below	
a. Athlone	1
b. Bellville	2
c. District Six	3
d. Mowbray	4
e. Wellington	5

4. How long you have been in this institution?	
a. Less than a year	1
b. 1-4 Years	2
c. 6-10 Years	3
d. Above 10 years	4
5. What is your position in the institution?	
a. Student	1
b. Financial Aid Staff	2

If you are student, please proceed to Section B. Financial Aid staff, please proceed to Section C.

SECTION B: STUDENT BIOGRAPHICAL & INTROSPECTION ANALYSIS

STUDENT BIOGRAPHICAL INFORMATION (Continued)

Please tick the applicable box	
6. When was your first registration as a student at the Cape Peninsula University of Technology?	
a. 2012-2014	1
b. 2015-2017	2
c. 2018-2020	3
7. Please indicate which academic year you are currently in	
a. Between 1st and 2nd Year	1
b. 3rd-4th Year	2
c. Postgraduate	3
8. Do you come from rural or urban area?	
a. Rural	1
b. Urban	2

9. Are your parent(s) /guardian(s) employed?	
a. Yes	1
b. No	2
10. If employed, what is the total household income per month?	
a. Between R0 and R7 000	1
b. R8 000-R14 000	2
c. R15 000-R21 000	3
d. Above R21 000	4
11. If unemployed, how is the provision made for living expenses? Please explain.	
12. How many people depend on the above monthly income or provision?	
a. Between 1 and 3 dependents	1
b. 4-6 dependents	2
c. More than 6 dependents	3
13. Who pays for your tuition fees, travelling, accommodation, food, books and other expenses associated with your studies?	
a. Parent(s)	1
b. Guardian	2
c. Bursary	3
d. Private Sponsorship	4
e. Loan	5
f. Self	6

**INTROSPECTION ANALYSIS ON THE IMPACT OF NSFAS ON STUDENT'S
ACCESS TO TERTIARY EDUCATION**

14. How did you find out about NSFAS bursaries? Please tick the appropriate box.

Newspaper Advert	Visit to NSFAS offices	Open day
From friends or family	Radio or TV Adverts	Internet
Career Expos	Social Media	Other

15. Have you applied for financial assistance to NSFAS?

Yes	No
-----	----

16. If your answer to the previous question is No, please give reasons below.

a.
b.
c.
d.

17. What was the outcome of your application? Please tick the applicable box.

Approved	Declined
----------	----------

18. Were you notified of the outcome of your application?

Yes	No
-----	----

19. If yes, when were you notified?

Immediately	After 1 week	Within 1 month
After 2 months	Between 3 and 6 months	After 6 months

20. How were you notified?

SMS	Telephone Call	Email
Billboards on campus	Word-of-mouth	NSFAS Online Portal

Please tick the applicable box		
	Yes	No
21. Were you taken through the process of what needs to be done after approval of your application?		
22. If your application was declined, were you given a brief explanation as to why?		
23. Do you think NSFAS has helped you achieve further?		

Please use the following scale to respond to items 24 to 26: SD= Strongly Disagree, D = Disagree, N= Neither agree nor disagree, A= Agree, SA= Strongly Agree					
	SD	D	N	A	SA
24. NSFAS positively influenced my access to tertiary education					
25. The availability of NSFAS to students prevents failure					
26. Provision of financial aid to students ensure success					

**INTROSPECTION ANALYSIS ON CHALLENGES THAT INHIBITS STUDENT'S
ACCESS TO NSFAS BURSARIES**

27. What challenges did you encounter when applying for NSFAS bursaries?

Lack of information	Procedural Eligibility Issue	and	Complexity of NSFAS Application	Other
---------------------	------------------------------	-----	---------------------------------	-------

28. If other, please specify.

--

29. What type of financial assistance did you receive? Please tick the applicable box(es).

Tuition Fees Payment	
Accommodation	
Travelling Allowance	
Food Allowance	
Book Allowance	
Other expenses related to your studies	

30. When did you start receiving the above-mentioned allowances? Please tick.

Start of the first term	
Second Term	
Third Term	
Fourth Term	
Not Applicable	

31. Did you receive full amount of funding as per your agreement?

Yes	No
-----	----

32. If no, was there any correspondence received as to why full payment was not allocated?

Yes	No
-----	----

33. What were your challenges with NSFAS bursary allocations? Please explain in point forms.

a.
b.
c.
d.
e.

CORRELATION BETWEEN NSFAS BURSARIES AND ACADEMIC PERFORMANCE

34. How did the challenges indicated in question 33 impact your academic performance and progress? Please explain

Please use the following scale to respond to items answer 35 to 38:

SD= Strongly Disagree, **D** = Disagree, **N=** Neither agree nor disagree, **A=** Agree, **SA=** Strongly Agree

	SD	D	N	A	SA
35. NSFAS motivates students academically					
36. Students who have received NSFAS perform better academically					
37. Students without NSFAS underperform academically					
38. All students under NSFAS graduate with the best class of degrees					

SECTION C: FINANCIAL AID STAFF JOB ANALYSIS AND ADMINISTRATION

Please tick the applicable box	
39. What is your designation in the Financial Aid Office?	
a. Director	1
b. Senior Financial Aid Officer	2
c. Financial Aid Officer	3
d. Administrative Assistant	4
e. Financial Aid Assistant: Helpdesk	5
40. How long you have been in this position?	
a. Less than 1 Year	1
b. 1-5 Years	2
c. 6-10 Years	3
d. Above 10 Years	4
41. What is your highest level of education?	
a. Matriculation	1
b. Short Course Qualification	2
c. Diploma	3
d. Bachelor's Degree	4
e. Master's	5
f. Doctorate	6
g. Other	7

42. What are your key responsibilities as far as NSFAS bursaries and loans are concerned? Please summarise in point form.

a.
b.
c.
d.
e.

Please tick the applicable box	
43. At which level of study do you administer NSFAS allocations?	
a. Undergraduate	1
b. Postgraduate	2
c. Both	3
44. How do you inform students about the application process of NSFAS?	
a. Email	1
b. SMS	2
c. NSFAS Website	3
d. Telephone Call	4
e. Billboards	5
45. Are students informed as to which documents are required for submission when applying? If yes, please briefly explain how?	
46. Are students informed of the procedure followed after they have made applications? Kindly please explain.	
47. Once the process has been finalised, is communication sent to students to inform them of the outcomes?	
a. Yes	1

b. No	2
48. If yes, what method of communication is used?	
a. Student emails	1
b. SMS	2
c. Telephone calls	3
d. Billboards on campus	4
49. If students are approved for NSFAS funding, how soon are they informed of the allowances they ought to receive?	
a. Before Registration	1
b. 1 Week after Registration	2
c. 1 Month after Registration	3
d. Before the end of the first semester	4
e. After the first semester	5
50. If students are NOT approved for NSFAS funding, how soon are they informed of the outcome?	
a. Before Registration	1
b. 1 Week after Registration	2
c. 1 Month after Registration	3
d. Before the end of the first semester	4
e. After the first semester	5
51. Are students not approved for NSFAS Funding allowed to appeal?	
a. Yes	1
b. No	2

52. Is there a set of criteria for allocating the allowances that students receive?	
a. Yes	
b. No	
53. If Yes, kindly please list the criteria in point forms below.	
a.	
b.	
c.	
d.	

54. Please indicate: when are the funds (allowances) paid out to students?

As soon as they sign Bursary Agreements (BA)	1 week after signing
Between 1 to 3 months after signing	6 months after signing

Please tick the applicable box	
55. How are the tuition and accommodation fees paid out to students?	
a. Student Fee Account	1
b. Student Bank Account	2
c. Fundi Card	3
56. How is the traveling allowance paid out to students?	
a. Student Fee Account	1
b. Student Bank Account	2
c. Fundi Card	3
57. How is the book allowance loaded to students?	
b. Student Fee Account	1
c. Student Bank Account	2
d. Fundi Card	3

58. How is the food allowance disbursed to students?	
a. Student Fee Account	1
b. Student Bank Account	2
c. Fundi Card	3

59. Are there any challenges that the financial aid office has come across that have caused delay in paying out students' allocation?

Yes	No
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60. If yes, please explain these challenges in point forms.

a.
b.
c.
d.
e.
f.

61. How can these challenges be overcome?

a.
b.
c.
d.
e.
f.