



**STAFF AND STUDENT PERCEPTIONS OF RESEARCH  
STRUCTURES AND SERVICES PROVIDED BY THE FACULTY  
RESEARCH OFFICES AT A UNIVERSITY OF TECHNOLOGY IN  
SOUTH AFRICA**

**By**

**MUSAWENKOSI NGIBE**

Submitted in fulfilment of the requirements of the Master of Technology Degree in  
Commercial Administration

In the

Department of Information and Corporate and Management  
Faculty of Accounting and Informatics  
Durban University of Technology  
Durban, South Africa

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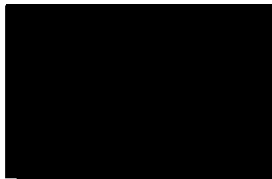
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Durban, South Africa

I, Musawenkosi Ngibe declare that this dissertation is a representation of my own work both  
in conception and execution.



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04/03/2015  
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Approval for final submission



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## ABSTRACT

The higher education landscape in South Africa has undergone significant change and transformation in recent decades, obliging all higher education institutions to be more competitive and provide services of quality to attract and retain students. Since their emergence as universities in the years of 2003-2004 Universities of Technology (UoTs) have been required to engage in research and to improve research output and throughput rapidly despite having their roots in a former colonial and apartheid era in which they were required to play a purely technical role. Importantly, the government funding formula for universities in South Africa is now the same for all public universities (based on publications and throughput) even though traditional universities were always research-oriented. This makes it likely that UoTs will continue to lag behind traditional universities if drastic measures to increase research capacity are not put in place. In order to service the provision of this sustainable research output different measures and research structures have therefore been designed by UoTs to support the increasing pressure to produce M and DTech graduates and upgrade the qualifications of teaching staff.

The purpose of this study was therefore to investigate the administrative support of research services and structures at faculty level at a selected UoT; to provide insights in terms of staff and student perceptions of postgraduate support and to make recommendations as to how to enhance existing research services and improve research structures to support research functions.

The study was a case study of a selected UoT. It used mixed method research to enable the researcher to collect both qualitative and quantitative data from academics and M and DTech students and Faculty Research Office staff members. Questionnaires and interviews were used as data collection instruments. Supported by the Gap Model of service quality and delivery and an adapted SERVQUAL instrument, the study sought to determine staff and postgraduate students' perceptions and expectations of research structures and service quality across four dimensions, namely reliability, responsiveness, assurance and empathy.

Analysis of the data revealed that Faculty Research Offices across each of the six faculties were lacking in certain respects in providing research support and development in each of the four identified service dimensions. They were particularly lacking in terms of communicating the nature and details of the research support services they offer.

The study concluded that with improved research structures and more skilled personnel all research activities could be incorporated and be facilitated by Faculty Research Offices, taking these functions away from departmental research committees where these exist. It also concluded that by communicating these research services through faculty orientations, workshop sessions, and online forums, academics and students' awareness would be enhanced. This could also have a positive impact on handling research matters and processes, improving the reliability of the research office services and allowing students to associate with the research office on a more regular basis.

This study therefore recommended that the identified quality gaps should be attended to in order to improve research services. Further, issues of research capacity development and support and service quality need to be urgently considered by the institution in order in the longer term to be in a position to improve enrolment and graduation rates, increase scholarly publications and contribute to the knowledge society. Inviting research experts and drawing on the greater experience and expertise of their Australian counterparts in the ATN network (with whom SA UoTs have a formal MoU) could lead to further research and development in the area investigated. This should go a long way in ensuring progress and growth in research output within the faculties of the institution investigated and could be of interest to other UoTs facing similar challenges.

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## ABBREVIATIONS USED IN THIS STUDY

AEI	Australian Government-Australia Education International
ATN	Australian Technology Network
CAEs	Colleges of Advanced Education
CHE	Council on Higher Education
CRIC	Central Research and Innovation Committee
CTP	Committee of Technikon Principals
DoE	Department of Education
DoHET	Department of Higher Education and Training
DRI	Directorate of Research and Innovation
DTech	Doctor of Technology Degree
DUT	Durban University of Technology
FRO	Faculty Research Office
Go8	Group of Eight
HEIs	Higher Education Institutions
IREC	Institutional Research Ethics Committee
ITS	Information Technology Support services
MTech	Master of Technology Degree
NFF	New funding framework
NPHE	National Plan for Higher Education
PR	Postgraduate Research
QUT	Queensland University of Technology
R&D	Research and Innovation
RC	Research Co-ordinator
RCs	Research Centres
SA	South Africa
SAPSE	South African Post-Secondary Education
SATN	South African Technology Network
TUT	Tswane University of Technology
UoT	University of Technology
VET	Vocational Education and Training

# CHAPTER ONE

## INTRODUCTION

### 1.1 BACKGROUND

Universities are the cornerstone of a better life as they strive for higher teaching, and learning and especially for research productivity which involves the production of new knowledge. According to Biermann and Jordaan (2007:7), the state of research at Universities of Technology (UoTs) in South Africa is however poor because of the scarcity of research expertise, inexperienced supervisors, and supervisors working in fields outside of their specialization. Mutula (2009:7) concurs that the Higher Education (HE) sector in South Africa (SA) as a whole falls far short of first world countries and that the transformation of technikons into Universities of Technology (UoTs) in particular has involved a serious and ongoing deficit in research skills.

As early as 2001 the National Plan for Higher Education (NPHE) prioritized increased output of postgraduate students (specifically Masters and Doctoral graduates); increased research outputs and sustaining existing research capacity and strengths, while simultaneously creating new centres of excellence and focus areas in institutions where research capacity/potential existed. It also advocated facilitating partnerships and collaborations in research (specifically at the regional level), along with postgraduate training and promoting articulation between the different elements of the research system with the aim of developing a national research strategy (Essack and Uys, 2009).

In 2004 the Department of Education (DoE) set an increase in postgraduate enrolments and outputs as a strategic goal for the South African Higher Education system as a whole (Singh, 2004:167). This was also the time when UoTs were established as the successor institutions of the Technikons which had had no responsibility for research output, nor were their staff required to have masters or doctoral qualifications. As fully-fledged universities this now changed and according to du Prè (2009:23), the DoE benchmarks planned for

2010 would require 40 and 60 percent respectively of academic staff to have doctorates or masters degrees as a minimum qualification for teaching at a University of Technology. This has not been achieved.

The Department of Higher Education and Training (DHET)'s requirements to increase postgraduate enrolment, scholarly publications, postgraduate pass rates, staff qualifications and the implementation of sustainable research functions, meant that significant changes had to be made within Universities of Technology which had their roots in technical education and had no research culture to draw on. This has resulted in these universities striving to attract respected research-active academics and formulating structures to boost research outputs in order to generate government subsidy and address the challenges of meeting their research output targets.

These challenges in the HE system as a whole were identified as including low throughput; decreasing government subsidies; inadequate research capacity; poor preparation/grooming of students for postgraduate programmes; inconsistent postgraduate research guidelines and services; statutory research permit requirements; bureaucracy in the admission process; slow thesis examination processes; poor supervision; balancing occupations (employment) and academic work for most postgraduate students; inadequate facilities; and heavy teaching loads for staff, (Mutula, 2009:1). The slow growth in masters and especially doctoral graduates was found to be more prevalent in 2007 than it had been five year before (Mouton, 2007: 1078) and there is no indication that this trend has been significantly arrested. It will be argued in this dissertation that the great majority of these problems can be alleviated or improved with the assistance of appropriate postgraduate support structures

In an email communication to all staff on 01 November 2012, the Vice-Chancellor and Principal of the University of Technology which is the subject of this study, stated that currently only some 13% of the academic staff at the university hold a doctoral qualification; some 45% hold qualifications at masters level; and that the University therefore falls far short of the targets set for UoTs by the DHET. He also said that the project of increasing the number of staff

with doctoral qualifications is fundamental to the future sustainability and wellbeing of University and that this had to be a focus of much of its attention from 2013. He emphasized that postgraduate enrolments also fall short of the target of 7% set by the DHET as currently these run at only between 2% and 3%.

For those institutions that plan to increase their postgraduate enrolments and outputs, it is clear that they will first need to create the institutional conditions for this to occur (Singh, 2004:168). Klem and Connell (2004) agrees that research management, or the ability to design and operate new structures and processes for stimulating, guiding, and overseeing research is therefore a major challenge for researchers and administrators alike.

Therefore this study has sought to ascertain the perceptions of academic staff and postgraduate students concerning the research structures and services provided by the Faculty Research Offices (FROs) at the selected university. The study uses the Service Quality ('SERVQUAL') instrument which was developed by A. Parasuraman, L Berry, and A Zeithaml, in the 1980s (Gibson, 2009) but which remains a respected research instrument today. This enables the identification of gaps in required standards of service delivery across four service dimensions, namely reliability, responsiveness, assurance and empathy. It was used to assess students' and staff perceptions and expectations of the research service quality offered by the six FROs in the University. The instrument enabled the researcher to evaluate the gaps between the perceived and expected research services currently offered to the university's research community.

## **1.2 RATIONALE FOR THE STUDY**

It is generally agreed that university academic staff do complex work in an increasingly demanding environment. Traditionally, universities have defined the role of academic staff according to the three domains of teaching, research, and service, while responsibility for some administration has always also been understood as part of their responsibilities. However the primary emphasis is traditionally placed upon teaching and research with lesser emphasis upon

service or administration (Houston, Meyer and Paewai, 2006:17). These authors argue that university faculty (teaching staff) are motivated most strongly by their core academic and disciplinary interests and are increasingly challenged by the higher workloads and increasing responsibility for research which is now being demanded of them. It could be claimed that this is especially true of Universities of Technology. This situation has in effect intensified academic work and changed the former balance between research and teaching towards a greater emphasis on research output. The situation becomes particularly pressing as governments adopt performance funding as the norm for the research budget components of higher education across all public universities. In addition, while all academics potentially have research interests within their fields of expertise, all are not producing research output which is accredited in South Africa by the DoE (North, Zewotir, Murray, 2011:1416) complicating the situation still further.

However research and teaching need not be mutually exclusive but are in fact intertwined and can interact synergistically to increase the effectiveness of both (Matthews, 2012:6).

Madue (2008:129) explains that with the increasingly competitive allocation of research funding and declining public funds for higher education, institutions around the world are not only facing significant pressure to produce research outputs but are having to compete for faculty, grants and graduate students to boost their revenue (Bienen, 2011:633).

De Villiers and Steyn, (2009), explain that in South Africa the Department of Higher Education (DoE) allocates funds to universities by means of a government funding formula, largely focusing on the two outputs of student throughput and research productivity. He further explains that each of the South African Universities has developed its own strategies to improve the delivery of these outputs so as to maximise their funding from the DoE. As a result, all six UoTs in South Africa, i.e. the Cape Peninsula University of Technology, the Durban University of Technology, the Vaal University of Technology, the Tswane University of Technology, the Mangosuthu University

of Technology and the Central University of Technology have identified different strategies to enhance student throughput and research productivity.

According to the Ministry of Higher Education and Training (2010), universities need to deliver the high level professional and occupational skills, research and innovation required for economic growth and development – and this could be seen as particularly the function of Universities of Technology which remain industry and technology focussed. Further to this, the presidency's Performance Monitoring and Evaluation (PME) sets targets for the Minister of Higher Education and Training's focus on specific areas that must align with the Department of Higher Education and Training (DHET's) strategic goals and objectives and also these targets focus on increased outputs of honours graduates, research masters graduates, doctoral graduates and post-doctoral fellowships. It could be argued that the task of UoTs is now to find the necessary synergy between these two sets of demands – that is between required economic growth and postgraduate research output. They are arguably in an especially good position to achieve this provided they can develop their research capacity effectively.

While research activity, as explained above, is relatively new to UoTs it is gradually developing although these institutions are still not research intensive compared to traditional universities. The idea of formulating research structures to oversee research functions and activities has, however, helped to improve research output in the most successful UoTs. These structures are designed to co-ordinate and channel research activity. Some UoTs have however been found to lag behind their counterparts and as a result their research capacity progress has been slower. This may be due to many factors but the research suggests that research structures and services to support and develop research may have been lacking.

Mouton (2007) attributes the slow growth of doctoral graduates in South Africa to serious systemic issues including:

- ❖ insufficient institutional attention and resources devoted to postgraduate support;

- ❖ too many overburdened and inexperienced supervisors; and
- ❖ insufficient research preparation for doctoral students.

Addressing these challenges successfully seems possible only by establishing Faculty Research Offices (FROs) with adequately trained and skilled staff to support research activities such as capacity development, academic and administrative assistance, research funding, and improved research infrastructure. In addition new knowledge can be developed through enhancing the intellectual capacity of researchers in terms of knowledge and skills, motivation, and the supply and demand factors now in operation where the demand for postgraduate qualifications has never been higher (Lues and Lategan, 2006:110). Maintaining service quality in higher education plays a significant role in enhancing educational standards and, at its best, should provide continuous satisfaction to staff and students.

Shahin (2007) defines service quality as the situation where customer expectations of service meet or exceed the perceived service. Jaipuria (2006:22) agrees that good perceived quality is achieved when the experienced quality meets the expectations of customers. Below are the research aims, objectives and research design of the study.

### **1.3 RESEARCH AIMS, OBJECTIVES AND DESIGN**

UoTs have been tasked to build and sustain research, increase throughput and output and academic staff were requested to upgrade their qualification. The need for functional research office to carryout research processes is pivotal. The aim of this research was to ascertain the perceptions of academic staff and postgraduate students towards the research structures and services provided by the FROs at a selected UoT in South Africa.

In order to achieve this aim, the following objectives were formulated. To determine:

- ❖ how academic staff and students perceive the research services provided by their faculty office;
- ❖ what research services are required by staff and students;

- ❖ what services are offered by each of the faculty research offices; and
- ❖ the structure of each faculty's research office.

This research was a case study conducted within a mixed method paradigm using both quantitative and qualitative methods. Probability sampling was used to select the respondents and collect data from academics and M and DTech students who participated in the questionnaire. Purposive sampling was employed to gather data from research office staff in order to ensure sufficient data to meet the objectives of the study. The sample was made up of academic staff, MTech and DTech students, Faculty Research Co-ordinators (RCs) and Faculty Research Officers (ROs). Data was collected from academic staff and students using questionnaires while interviews were conducted with research office staff as a means of qualitative data collection. Information gathered was based on the research structures and services designed to sustain the research functioning of the University.

It is envisaged that the findings of this study will make recommendations for improved research structures and the appointment of suitably qualified and experienced research administrators to provide enhanced research services to increase research output, and throughput of graduates at the university. This in turn will translate into increased institutional government funding allocation within the UoT context.

## **1.4 OVERVIEW OF CHAPTERS**

This study consists of 5 chapters.

### **1.4.1 Chapter one: introduction**

Chapter one is an introduction and provides the rationale for the study. This chapter also indicates the aims and objectives of the study and the situation faced by universities of technology in terms of research productivity.

### **1.4.2 Chapter two: literature review**

Chapter two provides a review of the literature providing an overview of the historical South African Higher Education landscape and the funding of

Universities of Technology. The Gap Model of service quality as the theoretical framework of this study is also explained with emphasis on the importance of Gap 5 as defined by the SERVQUAL model. The value of this instrument in terms of identifying staff and postgraduate students' expectations and perceptions of service quality is explored.

#### **1.4.3 Chapter three: Research methodology**

Chapter three discusses the research design and methodology used for the study. It describes the development of a sampling plan; the choice of data collection instruments; the distribution of the academic staff, and the design of M and DTech questionnaires. The reliability and validity of the instruments used in the study are also discussed.

#### **1.4.4 Chapter Four: Analysis of results**

Chapter four presents the data in tabular form, and provides an analysis and discussion of the results gathered from academics, M and DTech students, Research Co-ordinators and Research Assistants across the six faculties of the University.

#### **1.4.5 Chapter five: Conclusions and recommendations**

Chapter five discusses the conclusions and recommendations arising from the findings and provides a brief discussion on the limitations of the study along with suggestions for further research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 INTRODUCTION**

Chapter one provided an introduction to this study. The research problem was identified and the aim of the study was presented together with the research objectives. This chapter discusses the literature underpinning the study. Presently, the literature pertaining to service quality in the higher education sector is significantly undeveloped (Beaumont, 2012:12), while rather more studies have focused on commercial services (Sultan and Wong, 2010). However a study conducted by the Research Information Network (2010: 5), found that Universities of Technology generally do not have solid structures to support research services. They therefore concluded that these universities should seek ways to develop services that will more effectively integrate the collection, analysis and dissemination (internally and externally) of information about their research activities. Where this is found to be lacking students may favour UoTs that market themselves more effectively and whose information is more easily accessible to both internal and external stakeholders.

The literature therefore supports the idea that universities can gain a competitive advantage by improving the service quality that is offered to students and academics. It becomes increasingly important that universities understand staff and students' expectations and perceptions regarding the service they offer. This chapter therefore discusses the literature pertaining to the research role of higher education institutions in South Africa (HEIs) with particular reference to research support structures and to the means of investigating perceptions of service excellence.

#### **2.1 A BRIEF OVERVIEW OF HIGHER EDUCATION IN SOUTH AFRICA**

South Africa's higher education system has its roots in the nation's colonial and apartheid past (Bawa, 2005) and, as a result, since the advent of democracy in 1994 it has been undergoing changes to rid itself of the negative influences of this past. Its restructuring process was informed by what was known as

'international best practice, which has become common amongst policy makers around the world (Sehoolo: 2006: 1). According to Du Pré (2009: vi) in 1967, the government identified six technical colleges in SA which were developed as Colleges of Advanced Technical Education (CATEs). In 1979 these CATEs were redesignated 'technikons' and recognised as post-secondary higher education institutions. They offered career-oriented certificates and diplomas in the first three years of the tertiary level. For a long time technikons were not regarded as part of the higher education (HE) sector (Imenda, Kongolo and Grewal, 2004). However, after the promulgation of the Technikon Act in 1993 (Act 125 of 1993), they were licensed to offer degrees up to doctoral level (Jinabhai, 2003: 54) in addition to their existing certificates and diplomas.

In 1997, the Committee of Technikon Principals (CTP) recommended that Technikons become 'Universities of Technology' taking into account that they had already been granted degree-awarding status and also in order to bring them in line with world trends (Du Pré, 2009: vi). Subsequently, in 2003, Professor Kader Asmal (then Minister of Education), announced that some technikons would be redesignated 'Universities of Technology' and that other technikons would merge with universities to form comprehensive universities (Du Pré, 2009: vii). UoTs came into existence in South Africa on 1 January 2004 (SATN, 2012). In that year six technikons were given University of Technology status. Loosely the Australasian model for such institutions is being followed, as Australia and New Zealand had also recently gone through a transition from polytechnics (similar to South African technikons) to universities of technology (Van Zijl, 2005). The transformation from Technikons to UoTs was not always well received by their academic staff, as some staff members found the process of transformation difficult, as was adapting to the new need to balance teaching and research (Fourie, 1999). In line with this new focus, research became a critical output of these institutions necessarily leading to the need for staff members not only to publish but to upgrade their qualifications (Cecil. Arnolds, Regina,Stofile, Riyaadhand Lillah, 2013:3).

During 2004-2005, the higher education landscape altered completely with the merging of institutions, which reduced the existing 36 HE institutions to 23 (de

Villiers and Steyn: 2007). According to the Ministry of Education (2001) and Teferra and Knight (2008: 388-389), these universities are divided into three types as follows:

- eleven institutions are traditional universities, namely, the Universities of: Cape Town, Fort Hare, the Free State, KwaZulu-Natal, Pretoria, Stellenbosch, the Western Cape, the Witwatersrand, Rhodes and North West;
- six are universities of technology (the former technikons) namely: Cape Peninsula University of Technology, Central University of Technology, Durban University of Technology, Mangosuthu University of Technology, and Vaal University of Technology; and
- six are comprehensive universities, namely: University of Johannesburg, Nelson Mandela Metropolitan University, University of South Africa, University of Venda for Science and Technology, Walter Sisulu University for Technology and Science, and the University of Zululand.

Traditional universities offer theoretically-oriented university degrees; universities of technology are vocationally based; and comprehensive universities offer a combination of both types of qualifications (Top Universities home page, 2014). UoTs serve three functions in the higher education system, namely to deliver learning programmes; to do research; and to focus on technology from the viewpoint of various fields of study rather than a particular field of study (Du Pré 2009:15). The 23 public universities are state-funded institutions, with generally a low base of private income and are heavily dependent on student tuition income. The private higher education institutions depend largely on students' tuition fees and private sector investment as they are not funded by the state (Teferra and Knight, 2008: 389).

As recognised by the literature, the transformation of HE is witnessing numerous challenges. du Pré (2005) identifies some of the challenges faced by UoTs as the need for improvements in staff qualifications, the need to build research capacity, and the need to increase research output, while at the same time strengthening cooperative education and the links with industry, and increasing the intake of postgraduate students. Badat (2007) adds that current

difficulties experienced in the retention and reproduction of a new generation of academics can be detrimental to HEIs if not attended to promptly.

## **2.2 STAFFING AND QUALIFICATION IN SOUTH AFRICAN UNIVERSITIES**

The need to increase Africa's stock of PhD qualified staff has featured prominently in many discussions and reports in recent years as it is part of a broader concern with securing the 'next generation' of academics – a critical foundation for universities, and something on which their future teaching and research strength will depend (Harle, 2013). A major barrier for advancing research and post-graduate training at South African universities is the low proportion of academic staff with appropriate qualifications to oversee post-graduate research and to advance knowledge creation. Overall, only one third of full-time permanent academic staff hold doctoral degrees (CHE, 2009). According to Ng'ethe, Iravo and Namusonge (2012: 205) central to any realization of university goals and objectives are the academic staff whose number, quality and effectiveness either ensure or put in jeopardy the success of their universities' education production function. Piennar and Bester (2008) concur that without well qualified and committed academic staff, no academic institution can ensure sustainability and quality in the longer term. As discussed in Chapter 1, Mapesela and Strydom (2005) argue that SA HE is facing an unprecedented number of demands for increased public accountability; responsiveness; capacity-building; efficiency and effectiveness. In this current tertiary environment, increasing pressure is placed on academic staff to carry out research and to improve their qualifications (du Plessis, 2005: 1379).

According to Mapesela and Strydom (2005) the biggest challenge regarding staffing in South Africa and other African countries is "brain drain" and the loss of talented staff and experts within Africa's academia to other continents remains one of the critical problems facing universities here. The Council on Higher Education (CHE, 2009) finds that staffing the HE sector continues to be a challenge, particularly when it comes to attracting and retaining suitably qualified academic staff as there are few people qualified for academic work and many academic staff lack master's and doctoral qualifications. Also well

qualified people are often attracted to careers in the private sector where salaries tend to be higher.

### **2.3 FUNDING OF HIGHER EDUCATION IN SOUTH AFRICA**

During apartheid two broad types of government funding were in place in South Africa representing a division between the Republic of South Africa (RSA) and the so-called 'homelands' of Transkei, Bophuthatswana, Venda and Ciskei. This system existed up to 1997. The first type was that of negotiated budgets and was associated with the historically black universities and technikons. The second was that of 'formula funding' which was associated initially with the historically white universities (Bunting, 2004). He explains that the historically white universities, within the apartheid constraint of being required to serve the 'white community' only, were given considerable administrative and financial powers. (For example, they decided how their funding grants from government were to be spent, how many staff members they should employ, what their tuition fees should be, and how any surplus funds should be invested). However technikons were not given such privileges. From 1987 through 2003, government subsidies to HEIs were based on the South African Post-Secondary Education (SAPSE) subsidy formula (Mouton, Louw and Strydom, 2013:291). Meristotis and Gilleland (2000) add that this formula was largely fulltime equivalent (FTE) enrolment driven, and, as such, funding was heavily weighted by FTE levels. Hence HEIs received a subsidy from the government on the basis of the number of subsidy students multiplied by various unit costs. However the SAPSE formula proved to be problematic as it contributed to institutional inequities by treating all HE institutions as equal (Council on Higher Education, 2004). The White Paper on HE transformation rejected this formula and proposed its replacement with a new model aimed at bringing greater equity and efficiency into the HE system (Mouton, Louw and Strydom, 2013:291).

In the Education White Paper: A Programme for the Transformation of HE (Education White Paper 3, July 1997), it was stated that a new funding framework was required to facilitate the transformation of the HE system (Ministry of Education, 2003). The New Funding Framework (NFF) was then

introduced and gazetted in 2003 and according to The CHE (2007:31) the NFF is goal-orientated and performance-related thus enabling the distribution of government grants to institutions in line with national goals, priorities and approved institutional plans. De Villiers and Steyn (2009) agree that in SA, the Department of Higher Education and Training (DHET) allocates funds to universities by means of a government funding formula which focuses largely on the two key outputs of student throughput and research productivity. As mentioned in Chapter 1 each of the South African Universities has developed its own strategies to improve the delivery of these outputs so as to optimize their funding.

Pillay (2003:4) explains further that the extent of NFF subsidy consists of four block grants, namely the teaching input grant (planned full-time equivalent student enrolments) which includes provision for research training; the teaching output grant (non-research graduates produced) which includes provision for research training; the research output grant (publications and postgraduates produced); and grants for other institutional factors (development). Woodiwiss (2012) highlights that HEIs are judged by expressing their weighted research output as a percentage of their normed research output and the actual subsidy earned by an institution is equal to the institution's weighted research output. Singh (2009:1192) cautions that in the short term, this funding formula could be detrimental to some institutions and especially to universities of technology which do not have strong research capacity or output. She argues that universities with a low output are likely to continue to underperform because they will only be receiving small amounts of funding proportionate to their output. This can be illustrated through the government incentives offered for research outputs – these being clearly more easily obtained by traditional research-focussed universities.

In an attempt to encourage and enhance research productivity in HEIs, various systems have been introduced, such as government subsidy that is granted to HEIs in reward for research outputs (primarily journal publications and postgraduate student graduations) (Woodiwiss, 2012). Tongai (2013) explains that the government's incentive system works by funding universities for articles

published in accredited journal or peer-reviewed conference proceedings, or for publication of books, measured in publishing units. The DHET subsidy is R120 000.00 per full publication although this could fluctuate from year to year. However, in addition to the government subsidy, collaborative approaches with other universities and countries have been implemented by HEIs to build capacity (Harle, 2013) (a system noted below as potentially valuable if implemented more rigorously between Australian and South African UoTs). In addition universities have put in place postgraduate and/or research centres or offices to develop, promote and improve research participation and capacity among their staff and students (Zheng, 2012:16), this being clearly of special relevance to the current study.

Bosch and Taylor (2011: 443) raise a concern that many institutions are rooted in a strong tradition of teaching and find it hard to develop research capacity and produce research outputs. Macleod (2012) adds that research funding under the NFF has been criticized for being a “zero-sum game” in which better performance across the sector results in decreased allocations as the pool of funding remains static. Also the formula does not take into account the quality of research outputs.

Globally, research has become a key factor in determining both the status and funding for HEIs (Bosch and Taylor, 2011). Academic staff are therefore under great pressure to be productive in research. In aspiring to maintain and/or gain high-level profiles, all HEIs must therefore strive to increase their research output (Woodiwiss, 2012).

#### **2.4 ROLE OF HIGHER EDUCATION INSTITUTIONS IN SA**

Colleges and universities, in addition to their research missions, train and educate future researchers (Matthews, 2012:06). They need to deliver the high level professional and occupational skills, research and innovation required for economic growth and development (Ministry of Higher Education and Training, 2010). Therefore universities play an important role in the provision and development of the manpower required for the social, economic and technological advancement of any nation.

Badat (2007:07) concurs that the role of HE must necessarily intersect and effectively engage with the economic and social challenges of local, national, regional, continental and global contexts. He also sees that universities offer research-based teaching which is in contrast with other types of HEIs devoted to the provision of training and skills. However given the drastic increase in the demand for tertiary education over the past decade, many universities have been obliged to pursue both these missions with equal vigour even when funding and other resources have been extremely limited (Kearney, 2008:06). Del-Palacio, Sole and Berbegal (2011: 40) agree that traditionally, universities were responsible for providing education and developing research but that subsequently their goals have become more ambitious in training people, creating knowledge and in some cases, even transferring this knowledge to industry. Such broadly-based but research-focussed missions are bound to impact on the structures expected to uphold them, which will have to develop accordingly. Below is a brief overview of HE systems with particular reference to Australia due to its widely known research intensive UoTs.

## **2.5 A BRIEF OVERVIEW OF HIGHER EDUCATION SYSTEMS WITH PARTICULAR REFERENCE TO AUSTRALIA**

The researcher believes that it could be of benefit to the development of strong faculty research offices in South African UoTs if they were to see their counterparts in Australia as a benchmark against which to measure themselves. Australia has an overall reputation for scholastic excellence. Williams, Rassenfosse, Jensen and Marginson (2012: 06) point to Australia as being amongst the leading countries in respect to tertiary education with prolific, highly regarded and well-funded HEIs. Australian UoTs went through a similar route in terms of HE development, transformation and the re-designation of colleges to institutes of technology and universities of technology. They have high research intensive UoTs which are amongst the top 500 universities in the world and these technical univesities have also demonstrated success in research activities and have been able to benefit from strong collaboration agreements with private organisations in a way which is currently lacking in South Africa.

Another reason for benchmarking with the Australian UoTs follows du Pré's (2009: vi) explanation of the formal signing of a Memorandum of Understanding (MoU) between the South African Technology Network (SATN) and Australian Technology Network (ATN) which enables the South African UoTs to draw on good practice of the ATN experience in developing their UoTs. This preceded the South African experience by between ten and fifteen years. Thus far however the evidence is lacking for South African UoTs having taken advantage of this opportunity to draw on the Australian experience of developing faculty research support structures.

In the last twenty years, the higher education sector in Australia has undergone tremendous changes in terms of organization, supervision, participation, and financing. From the early 1970s to 1988, tertiary education in Australia was made up of three separate sectors: universities, colleges of advanced education (CAEs) and technical and further education schools and was overseen by the Commonwealth Tertiary Education Commission. In 1988, new policy directions were announced in a government White Paper and the binary line between universities and CAEs was abolished. The two sectors were replaced with a new single, combined sector, the unified national system of higher education. It is this higher education system together with vocational education and training (VET) that makes up what is considered the "tertiary education sector" in Australia (Higher Education Finance and Cost-Sharing in Australia: 2006)

According to the Australian Education Network home page (2014) the Australian Technology Network (ATN) is a coalition of five Australian universities that share a common focus on the practical application of tertiary studies and research. These universities therefore share a similar background as SA UoTs in the way they distinguished themselves as technical colleges before becoming accredited universities.

Similarly to SA UoTs, these universities also have Research Offices/Centres who oversee research activities. These universities provide more or less similar research services and support but in a more developed manner and with

greater resources. What also stands out is their collaborative research which involves industry partners, government (local, state and federal) and community organisations. According to the Queensland University of Technology homepage (QUT) homepage (2014) the Office of Research supports and stimulates the development of QUT's research profile through the provision of expert advice and assistance to the research community. They provide the following: Funding opportunities, Collaborative research, Research data management, Research Ethics, Workshops, presentations and seminars (on different aspect to enhance research community) and Research Finance.

Resulting from this background the universities have developed a framework of flexibility and innovation that continues to deliver practical results. The network university members are as follows:

- Curtin University of Technology
- University of South Australia
- RMIT University
- University of Technology Sydney
- Queensland University

It remains the case however that Australia's Go8 universities (equivalent to South Africa's traditional research universities) account for over two-thirds of the research undertaken at Australian universities. Also Go8 universities attract the highest levels of industry and competitive government grant funding for research (Go8 Australia homepage, 2014) and it is likely that the research output in Go8 universities will continue to rise as they received \$190.2 million from international sources and \$4130.6 million from donations, bequests and foundation last year. The ATN universities receive considerably less compared to the Go8 institutions. The ATN universities however receive funding of \$19.0 million from international sources and \$25.3 million from donations, bequests and foundation (Go8 Policy Note 4, 2012)

## **2.6 CHALLENGES EXPERIENCED BY HEIS IN TERMS OF STAFFING AND RESEARCH GLOBALLY**

The ever increasing intake of students and the increasing demands of academic work has resulted in many academics working longer hours than in the past and expressing dissatisfaction with their working conditions (Vardi, 2009: 499). Arnolds, Stofile and Lillah (2013:11) agree that there is an increase in administration, teaching, research and supervision workloads. According to Lee and McKenzie (2011:69) academic workloads and other requirements (such as increasing administrative work, and supervision duties) has a negative impact on the quality and output of supervision and research. They find that as teaching workload and administration intensifies there is less and less time for research and research supervision.

According to Burgess writing in 1996, there was already growth in the sector that had not been matched by resources for staffing and this has continued and been accompanied by a shift towards more competitive performance-based funding exacerbating an already over-stretched workload situation. Mapesela and Strydom (2005:2) add that finding talented staff and experts in Africa's academia still remains one of the critical problems facing universities which are experiencing a steady loss of academics to other countries to better-paying universities or to the corporate world which offers appealing salaries.

According to the Ministry of Higher Education (2001) HE has a critical and central role to play in facing the challenges of overall unsatisfactory quantity and quality of graduate and research outputs, lack of representative staff profiles, and the need for staff members to upgrade qualifications (CHE, 2009: 73) with only around 8% of staff at UoTs holding doctorates, 12% at comprehensive universities and 21% at universities.

## **2.7 CHALLENGES OF POSTGRADUATE RESEARCH**

Research in most universities in Africa is hardly co-ordinated while there is often, considerable variation in approach and even in fulfilment of the requirements for postgraduate research programmes (Mutula, 2011).

There are therefore many challenges facing postgraduate research especially in Africa. Wadesango and Machingambi (2011:33) agree that postgraduate

students in UoTs are faced with the same but also some additional challenges – one of the most common being supervision-related problems. In their study, they found that students at UoTs find it difficult to pursue their studies as a result of supervisors being too busy to be effective in their roles; lack of feedback from supervisors due to enormous workloads; limited knowledge and expertise in the field; communication gaps and disagreements about the research project; and supervisors' level of commitment and interest. This situation can be better understood in the light of the number of postgraduate students in SA universities having doubled over the past 15 years, whilst the number of permanent academic posts has only increased by 40% over the same period. This has resulted in academics being increasingly burdened with an unrealistically high number of postgraduate students to supervise while often lacking experience of supervision roles (CHE, 2009).

## **2.8 POSTGRADUATE RESEARCH (PR) AND RESEARCH CENTRES (RCS) AT SOUTH AFRICAN UOTS**

Addressing these challenges successfully seems possible only by establishing structural research capacity such as a centre for research development and support can provide. Such a centre can oversee research funding and provide research infrastructure where new knowledge can be developed through enhancing intellectual support for researchers in terms of the provision of information, motivation, and support and guidance in general given the increasing supply and demand for postgraduate qualifications (Lues and Lategan, 2006:110). This section will examine the current state of these support systems in three leading South African UoTs. To have an understanding as to how a range of developing UoTs operate in terms of research, the researcher investigated the Durban University of Technology, the Tswane University of Technology (TUT) and the Central University of Technology to ascertain what is the role and purpose of their Research Offices and what they offer in terms of postgraduate research services

### **2.8.1 Durban University of Technology (DUT)**

According to du Prè (2009:18), the Postgraduate Development and Support Centre at DUT was established in 2008 to enhance postgraduate research

activities. The centre administers postgraduate scholarships and bursaries, provides financial assistance, promotes research output, tracks postgraduate exchanges and study visits, recruits international postgraduate students, and assists existing staff to upgrade their qualifications. .

#### 2.8.2 Tswane University of Technology (TUT)

As an emerging research institution the focus for TUT is on the development of Research and Innovation (R&I) capacity in strategically selected areas of strength (niche areas) that are relevant to national and regional needs, priorities and opportunities. Staff development, increasing the number of postgraduate students and postdoctoral fellows, strengthening leadership and platforms for R&I, building an enabling environment and institutional culture for R&I, facilitating knowledge transfer and commercialization and increasing R&I funding and output are some of the priorities. TUT is continuously seeking to improve the systems and incentives to support these priorities. The R&I endeavours are supported and sustained through collaborative networks and partnerships (TUT homepage, 2013).

The Directorate of Research & Innovation (DRI) is the operational arm of the Central Research and Innovation Committee (CRIC) and functions as a central institutional advice and support service for mobilizing resources for R&I, and aims to ensure effective administrative support systems. Its key performance areas include the development of R&I policy, strategy and procedural documents; facilitation of R&I focus and niche areas; communication and reporting on research-related information; contributing to the enhancement of research skills of postgraduate students; monitoring and implementing quality assurance mechanisms with respect to successful postgraduate progress and throughput; facilitation of research-related training; as well as ensuring total quality management for R&I services. The Directorate is a single unit with offices at the Pretoria Campus of TUT and serves all the campuses of the institution.

#### 2.8.3 Central University of Technology (CUT)

According to the Central University of Technology's homepage their Unit for Research and Innovation wants to contribute towards 'a stimulating academic heartland that will contribute towards citizenship with skills and competencies in appropriate technologies'. It supports a research and development focus; institutional research development; institutional structures for the management of research development; research policies and procedures; a research and development plan; research programmes; CUT research grants and research publications (Central University of Technology homepage, 2013).

Taken from the above information (and other UoT websites not included here) it is clear that the postgraduate centres for research in each of the selected UoTs are designed to carry out the same objective: to cater for postgraduate enhancement. It must be highlighted that even though UoTs cater for postgraduate enhancement, there is a large gap between their rankings and also there is a considerable gap in terms of postgraduate enrolment, scholarly publications, graduation rates and administration of postgraduate research services. It is difficult to compare these UoTs because there are many aspects that one would have to take into consideration or be mindful of (for example, capacity within the university, resources, postgraduate enrolment, funding, and research support.). However, very few UoTs have emphasised in their homepages the paramount importance of having good administrative support and a well-established structure to administer research activities – an exception being TUT which claims that proper research structures and good administrative support have contributed to the university's success rates.

Like DUT, TUT has decentralized Research Offices and according to TUT's Annual Research and Innovation Report (2011:8) in order to develop and support sustainable research activities across the breadth of the university's disciplines, it was necessary to ensure that suitable research structures were in place to plan and deliver research and supporting activities over time and that one of the important factors in creating a positive research and innovation environment and to maximise the potential of staff, is to provide good administrative support to research management and administrative support to researchers at central level. Their research support achieved the following in

2011: external income of R87,541,340.21; a total of 836 (820 in 2010) staff members held a master's (37.68 percent) or doctoral (19.74 percent) qualification; 35 TUT researchers were NRF rated in 2011 (an increase from 33 in 2010); submission of approximately 248.5 (192.87 was approved in 2010) research publication output units; and graduations of 149 masters (128 in 2010) and 24 doctoral (22 in 2010) students. Although TUT is one of the biggest and most progressive UoTs in South Africa, there may be a gap between their intentions given in their publicity documents and what they are able to achieve on the ground as they are still facing challenges in terms of upgrading staff qualifications and increasing graduation rates. This is experienced across most UoTs; DUT and Central University of Technology are no exceptions. As documented in the DUT Research Report (2012) the research outputs are lower than TUT, reflecting that a total of 557 students registered for postgraduate study in 2012, 461 for MTech and 96 DTech qualifications. In 2011, 85 Masters and 14 DTechs graduated. In terms of staff qualifications, out of a total of 606, 13% of the Universities' academic staff have Doctorates and 47% have a Masters qualification. The report also states that there was a 45% increase in terms of research outputs between 2010 and 2012. This might be an achievement and improvement to DUT but it is below to what the DHET requires. As concluded in a study by Wadesango, Maphosa and Moyo (2014) postgraduate students require deliberately planned and implemented academic and research support; this will go a long way in enhancing research and completion rates at postgraduate level.

The following section looks at the effectiveness of having either centralized or decentralized research centres.

## **2.9 CENTRAL VERSUS DECENTRALIZED RESEARCH CENTER STRUCTURE**

All UoTs in South Africa have either a centralized or a decentralized research office and services at each of the institutions differ (Zheng, 2012). The issue of whether the research functions should be centralized or decentralized to some degree has paralleled the general shifts in institutional policy regarding central control and responsibility. Zheng (2012) found that the smaller research institutions have greater need for centralization from a management or

administrative responsibility. The centralized structure can avoid redundancy and promote consistency, and a large institution may have a central research office but may decentralize some of its functions. With decentralized function, the office of research can assume an even greater coordination and policy and oversight role for its individual faculty, and all in all there is no right structure; the structure must fit the culture of the institution. (Kulakowski and Chronister, 2008:57-58)

While Research Centers in UoTs will normally play a positive role in academic studies, if not run properly and effectively, they can in fact hinder staff and student academic work. These hindrances may vary from clients being provided with out-of-date information; to a failure in capacity development, to a lack of proper postgraduate guidance (Rosentreter, 2012:44). Rosentreter also warns against any exaggerated claims for the effectiveness of Research Centres since a student's achievement can be hindered by environmental factors outside of the university's ambit such as socioeconomic factors (culture, social understandings, religion and education), which can effectively limit that person's access to some developmental opportunities. A sensitivity to these factors can however be factored into the services provided by a good Research Centre mitigating their effects to some extent.

## **2.10 PROVIDING RICH RESEARCH SUPPORT AND SERVICES**

To establish a research culture in UoTs, comes, as explained above, with great challenges since UoTs were traditionally teaching universities without a research culture. Therefore proper mechanisms need to be considered if UoTs are to attempt to match the powerhouse research universities. According to Wadesango, Maphosa and Moyo (2014:53) it is of paramount importance for universities to provide academic support that provides a personal and practical approach to academic study so as to ensure that research which is appropriate and relevant to the needs of the economy can be encouraged. Accordingly, one of the key challenges for the higher education sector involves delivery of a high quality of service to satisfy its staff and students – thus helping to achieve sustainability in a competitive service environment (DeShields, Kara and Kaynak, 2005). According to Beaumont (2012) this demonstrates the

importance of service quality in gaining a competitive advantage for individual universities while also highlighting the need to better understand the role that service quality plays in the higher education sector as a whole.

## **2.11 QUALITY IN HIGHER EDUCATION**

The search for improvement in research performance is a powerful influence on all universities. Hence universities are increasingly interested in how they can improve their competitive position in attracting, supporting and promoting the work of high-quality researchers (Research information network report, 2010: 5). Del-Palacio, Sole and Berbegal (2011) add that university internal services principally infrastructures and staff can contribute to improving research performance.

Quality in higher education is a complex and multifaceted concept and a single appropriate definition of quality is lacking (Voss, Gruber and Szmigin, 2007). According to Heck and Johnsrud (2000) higher education is facing pressure to add value to its activities and the present view for enhancing educational value is to spend effort on continuous service improvement, to focus on stakeholder interest and to increase student satisfaction. Tan and Sei (2004) add that quality in education can be determined by the extent to which students needs and expectations can be satisfied. O'Leary and Quinlan (2007) describe student satisfaction as a combination of product and service quality. Sinclair (2007) adds that student satisfaction can be viewed both as an outcome of the learning process and a requirement for successful learning. A major gap today is the need to have administrative staff to help develop and support research (Research-costing practices).

### **2.11.1 Delivery of quality service to customers in higher education**

In the business world, customer service is a prized commodity as it has a direct impact on profits. Given the struggling global and South African economies, traditional higher education institutions are dealing with decreased revenues. One way for colleges and universities to accomplish this objective is to place a renewed focus on meeting or exceeding the expectations and needs of their customers, namely their students (Boyd: 2012). Green and Ramroop (2014)

argue that service quality comprises various criteria that are intangible and subjective which are therefore difficult to measure but nonetheless important. However, it must be remembered that service quality is dependent upon academic quality which it can support but not replace or create. Even when universities are persistent in ensuring service delivery and student satisfaction; the academic basis of research services offered by the university cannot be delivered by administrators alone. They have to be decided in a collaborative partnership between educational and disciplinary experts and experienced research administrators (who know about the practicalities of handling student services on a daily basis). Students may then judge if the research services provided to them meet their expectations.

According to Gbadamosi and de Jager (2009:880) in South Africa, traditional students and their expectations have changed and are still changing. They further state that South African higher education students include a wide spectrum from young, to mature and working class people and part-time students.

In times of fierce tertiary education competition where many institutions offer similar products in terms of fees and educational programmes; student service differential can provide an organization with a distinct competitive advantage (Gyamfi, Agyeman and Otoo, 2012:21). Since severe competition results in little variation of facilities, the quality of student services has been regarded as one of the main factors deciding whether or not the institution operates successfully.

According to Sharabi (2010:318) both the students and their parents are looking for added value for their money and the higher education institutes have to deliver quality that is compatible with students' expectations and needs (Smith, Smith and Clarke, 2007:334). Gruber, Fuß, Voss and Gläser-Zikuda (2010:106) add that increasingly, higher education institutions are beginning to focus on providing service delivery to meet or even exceed the expectations of their students. Besides striving for promotion of good student services and

facilities in order to strengthen competitive advantage of an institution and differentiate it from others, advancing the service quality of the institution ensures that students have a positive impression. These must therefore be key points for every member of the management team to consider (Gyamfi *et al.* 2012:21).

It therefore becomes important to analyse students' satisfaction in higher education, also because institutions of higher education could greatly benefit from being able to establish a lasting relationship with their students (Alves and Raposo, 2007:572). Alumni support is underdeveloped in South Africa. Gbadamosi and de Jager (2009:877) add that continuous improvement of existing standards is necessary for increasing student satisfaction. The following section looks at the service quality model which underpins this study.

## **2.12 THE SERVICE QUALITY MODEL**

Having briefly considered the role of Research Offices in UoTs, it is now necessary to analyse service quality in more depth. The Service Quality Gap instrument 'SERVQUAL' was first developed by Parasuraman, A., Berry, L and Zeithaml, A in the 1980s (Gibson, 2009).

According to Zeithaml, Bitner and Gremler (2006), service quality, unlike product quality, is hard to define or measure because of the inter-relationship of user expectations and the impact of specific features of service such as intangibility, inseparability, heterogeneity, and perishability. SERVQUAL is a multi-item scale developed to assess customer perceptions of service quality in service organisations and measures service quality as the discrepancy (gap) between a customer's expectations of a service offering and the customer's perceptions of the service received. (Parasuraman, Berry and Zeithaml, 1988).

Shahin (2007) also defines service quality as the difference between customer expectations of service and perceived service. Jaipuria (2006:22) adds that good perceived quality is obtained when the experienced quality meets the expectations of the customers. According to Landrum, Prybutok and Zhang (2007:104) service quality is a means of developing a competitive advantage.

Sharabi (2010:317) finds that only those institutions focusing mainly on the needs of their customers will endure serious competition.

Dehghan, Shahin and Zenouzi, (2011) add that nowadays almost all organizations are realizing the significance of customer-centered philosophies, and one of the key challenges they are facing is how to manage service quality.

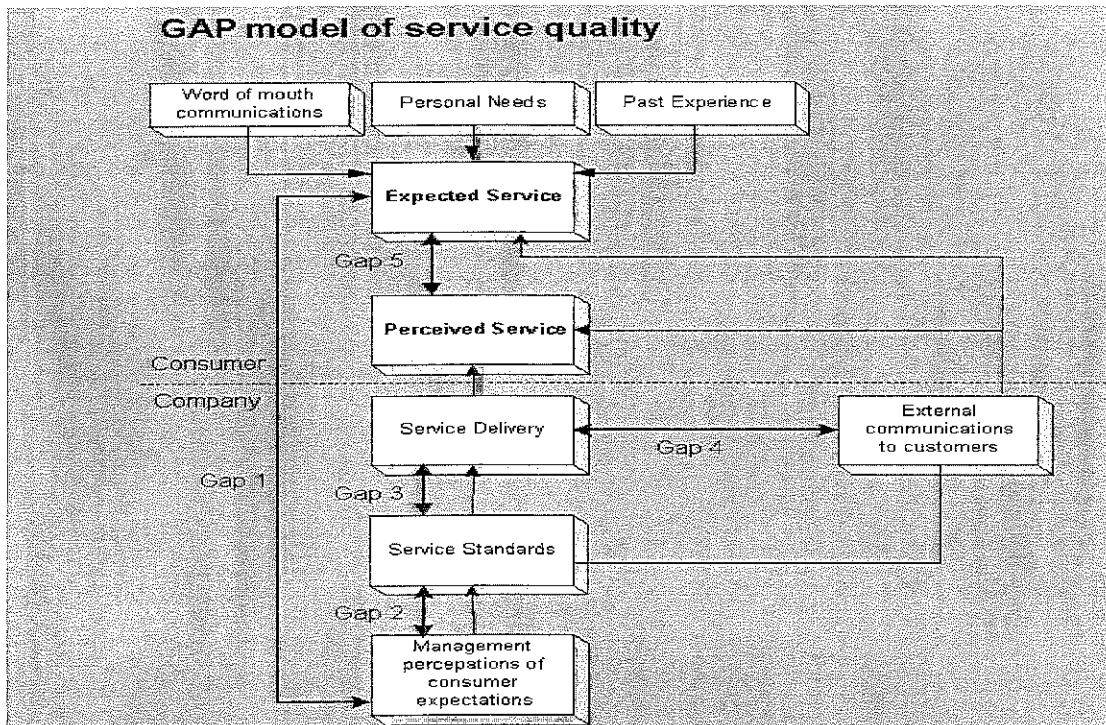


Figure 2.1: GAP model of service quality from Parasuraman et al. (Zithaml&Bitner 1996)

The service quality model was derived from the magnitude and directions of five gaps as follows (Singh and Khurana, 2011:13):

**Gap 1 (Understanding):** the difference between customer expectations and management perceptions of customer expectations.

**Gap 2 (Service Standards):** the difference between services quality specifications and management perceptions of consumer expectations.

**Gap 3 (Service Performance):** the difference between service quality specifications and the service actually delivered

**Gap 4 (Communications):** the difference between service delivery and what is communicated about service to customers.

**Gap 5 (Service Quality):** the difference between customer expectation of service quality and customer perception of the organization's performance.

According to Shahin (2007:2) gap1 to gap 5 result from the following:

**Gap 1** is a result of lack of a marketing research orientation, inadequate upward communication and too many layers of management.

**Gap 2** occurs as a result of inadequate commitment to service quality, a perception of unfeasibility, inadequate task standardisation and an absence of goal setting.

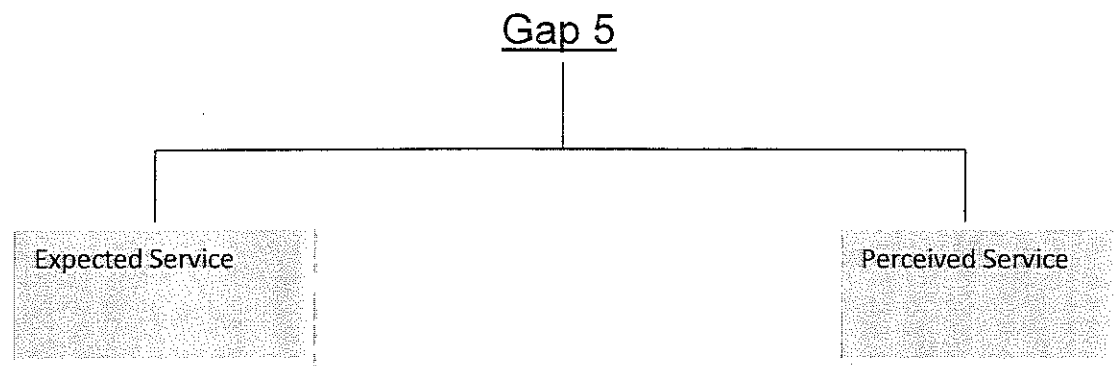
**Gap 3** occurs as a result of role ambiguity and conflict, poor employee-job fit and poor technology-job fit, inappropriate supervisory control systems, lack of perceived control and lack of teamwork.

**Gap 4** occurs as a result of inadequate horizontal communications and a propensity to over-promise

**Gap 5:** Occurs as a result of the influences exerted from the customer side and the shortfalls (gaps) on the personal needs, word of mouth recommendation and past service experiences.

### 2.13 PERCEIVED SERVICE QUALITY GAP (Gap5)

Thorough understanding of Gap 5 is crucial to this study as it is directly related to its main focus: staff and student perceptions of research structures and services.



This gap is directly related to everyone's perception of service quality as customers expect certain things from certain companies. If gaps 1 to 4 are closed to a minimum then gap 5 should follow. If there are any gaps left in steps 1 to 4 the perceived customer service quality will be negatively affected. The way to make sure these gaps are closed or minimised is through thorough systems design, precise communication with customers, and a well-trained workforce (Coppola 2001).

Expectations and perceptions are measured separately to produce a relative measure of how well the service was performed relative to the consumers' expectations. Satisfying customers is one of the main objectives of every business. Businesses recognize that keeping current customers is more profitable than having to win new ones to replace those lost, (Naik, Gantasala and Prabhakar, 2010:234). Dehghan and Shahin, (2011) add that customer satisfaction can be secured when the actual performance meets or exceeds the expectation of those being served.

The service quality gap signifies that the perceived or experienced service is not consistent with the expected service resulting in negatively confirmed quality and a quality problem, bad word-of-mouth reports, leading to a negative impact on corporate or local image and lost business (Jaipuria, 2006:22). Therefore it is safe to say that universities should constantly provide quality services to their students, to the extent that these can be seen as 'customers'. If there are any gaps left in step 1 to 4, the perceived service quality will be negatively affected (Coppola, 2001:11).

Addressing these gaps could be a basis for developing service processes in which expectations and experience consistently meet expectations. The potential payoff from improved service quality is considerable. Providing excellent service, which should be the goal of every organization, leads to greater efficiency and effectiveness and a loyal customer base, (Zeithaml, Parasuraman, and Berry, 1990). Zheng (2012) indicates in her study that universities should strive to increase students' satisfaction by providing the services they really require. Customer satisfaction has an effect on the

profitability of nearly every commercial business and when customers perceive good service, each will typically tell nine to ten people (Naik, Gantasala and Prabhakar, 2010:234). To translate this into the university situation, university management should recruit the correct people for the job (Research Centre/Faculty Research Office staff) and train them in administering research, using technology and purchasing the equipment and resources that will be appropriate to increase these employees' efficiency.

#### **2.14 IMPORTANCE OF TRAINING ADMINISTRATIVE PERSONNEL**

Universities in Australia have indicated that the conscious and active management of the research environment is the biggest change in research activity in recent years (Taylor, 2006) and that research management, or the capability to design and operate new structures and processes for stimulating, guiding, and overseeing research has become a major challenge for researchers and administrators alike (Bosch and Taylor, 2011). It is reasonable to say that in order for a person to carry out his/her job in the specialised field of providing research services, proper training is essential in order to ensure that the person clearly understands all research processes and procedures. Personnel training and development allows for increased expertise (quantity) and improved levels of competence (quality) within universities. (Mabizela, 2005).

In a study conducted by Popoola, Adesopo and Ajayi (2013) in Nigerian Universities it was revealed, amongst other findings, that the universities administrative staff lacked adequate mentoring skills, information and training. They add that university administrators perform a range of professional duties which include providing services to students and staff members; servicing of committee meetings; record keeping; dealing with written documents in the form of rules and serving in an advisory capacity at such meetings. They then highlight that within these duties mentoring is required in a number of areas. In the experience of the researcher this is lacking in most universities in South Africa. Administrative staff most often learn on the job here also and this may compromise their efficiency in providing satisfactory research services.

## **2.15 SUMMARY**

The chapter presented an overview of South Africa Higher Education with some reference also to Australia and especially to Australian Universities of Technology. It explained the funding formula in both countries. It also looked at the challenges faced by HEIs in terms of staff workload and postgraduate issues to make a case for the need for more knowledgeable Faculty Research Officers to be employed to man Research Centres in UoTs. The use of the SERVQUAL service quality model, as the preferred instrument for measuring the gap between customers' expectations and their perceptions of service quality in service organisations, including universities, was explored. The importance of Gap 5 (the difference between customers' expectations and perceptions of service quality) is highlighted as the most important service quality gap, forming the theoretical basis of this research.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 INTRODUCTION**

The preceding chapter presented a review of the pertinent literature and discussed the theoretical framework underpinning this study. In this chapter, the research design, population, sample and data collection are discussed. The chapter further highlights the ethical considerations and reliability and validity issues within the scope of the study.

#### **3.1 RESEARCH DESIGN**

According to Khan (2008: 69); and Malhotra (2011), a research design provides a framework or blueprint for conducting the research project by specifying the procedures necessary for obtaining the required information needed to solve the research problem. Creswell (2009:3) adds that research designs are plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis to obtain answers to research questions or problems. In this study, data were gathered from MTech and DTech students, academic staff and the Research Office staff from the six campuses across all faculties at the selected university. In order to achieve the aim of this study, two sets of questionnaires were distributed; one to the sample of MTech and DTech students; and the other to the academic staff sample. Interviews were conducted with all personnel of the Faculty Research Offices. Further, semi-structured interviews were conducted with academic staff and MTech and DTech students who agreed to participate in a follow-up interview.

#### **3.2 RESEARCH METHODOLOGY**

According to Kumar (2011:1), research is an intensive and purposeful search for knowledge and understanding of social and physical phenomena. Research can be undertaken for two different purposes: to solve a current problem by an organization, which is called applied research; or to generate a body of knowledge by trying to comprehend how certain problems that occur in organizations can be solved, which is basic research (Sekaran and Bougie,

2009:6). This basic research study sought to use a suitable research approach to address the aims and objectives of the study.

### **3.3 MIXED METHODS RESEARCH**

Naoum (2007: 37) states that deciding on which type of research to follow, depends on the purpose of the study and the type and availability of the information which is required. He adds that there are two types of research approaches, namely: qualitative and quantitative research. In an attempt to obtain a suitable research outcome, this study adopted a mixed method approach which involves the mixing of quantitative and qualitative research methods, approaches, or other paradigm characteristics (Johnson and Christensen, 2012: 33). Mixed methods research combines elements of qualitative and quantitative research approaches for the purposes of breadth and depth of understanding and corroboration (Creswell and Clark, 2011:4), and to produce converging findings in the context of complex research questions (Lingard, Albert and Levinson, 2008:03).

Andrew and Halcomb (2009:68-69) explain that in many instances, the collection of mixed data is achieved through the use of two or more complementary methods of data collection that separately collect qualitative and quantitative data either sequentially or concurrently. Questionnaires, structured interviews, and semi-structured interviews were used in this case study which comprised both qualitative and quantitative data gathering stages to address the research objectives.

### **3.4 TARGET POPULATION**

The target population is the complete group of objects or elements relevant to the research project. They are relevant because they possess the information the research project is designed to collect (Hair Jr, Wolfinbarger, Money, Samouel and Page, 2011:165). They are also the group of people to whom the results of our research will apply (Whitley Jr and Kite, 2013:485). It is therefore important to clearly define the target population or the set of elements to whom one wishes to apply the findings of the study (Daniel, 2012:9). All academic staff, registered M and DTech students, and personnel of the six Faculty

Research Offices across the five campuses of the university formed the target population for this study. The reason for targeting academic staff and postgraduate students for the study was because they are most likely to use the services offered by the faculty research offices. Also, academic staff are required to publish, increase their research output and upgrade their qualifications (Singh, 2011; Govender, 2011) and therefore those not currently research-active are nonetheless likely to use the research services in the future.

The lists of academic staff and MTech and DTech students from all departments across the six campuses of the university were obtained from the Department of Information Technology Support Services (ITSS) on 26 November 2012 and indicated that: full-time academics totalled 670; and registered MTech and DTech students totalled 559.

Having discussed the target population, the next section details the research sample in this study.

### **3.5 SAMPLING**

According to Zikmund (2000); and Hair, Babin, Money and Samouel (2003), the purpose of sampling is to enable researchers to estimate some unknown characteristics of the population. The goal of all sampling is to obtain an unbiased or representative sample of the target population, and the methods used to accomplish this fall into two categories: probability and non-probability (Diamantopoulos and Schlegelmilch, 2006; Gomez and Jones, 2010:80-81).

The researcher believed probability and purposive sampling to be appropriate to address the objectives of the study and to ensure that sufficient data were collected to meet its aim and objectives. Probability sampling means that the probability of each element in the population being sampled is known (Davis and Pecar, 2013:191); this knowledge can be attained through the application of randomness in the choice process (Stopher, 2012:70).

### **3.5.1 Sample Size**

According to Sekaran and Bougie (2010: 295), the sample size for a population of 670 should be 278; and for a population of 559, the sample should be 260. The adoption of Sekaran and Bougie sample size table fitted with the objectives of the study as it allowed the researcher to have satisfactory participants. Simple random sampling was used to identify the sample size for this study. Using this type of probability sampling, the researcher assigned numbers to the units composing the population; this generated a set of numbers, and the units having those numbers were included in the sample (Babbie, 2011: 228). The researcher used Microsoft Excel to randomly select every second person on the academic staff and the M and DTech lists respectively until the sample size for each group was reached.

A purposive sample was also used to identify the sample size of the Faculty Research Office personnel across six faculties. According to Davis and Pecar (2013: 191) a purposive sample is a sampling method in which elements are chosen based on the purpose of the study. Purposive sampling may involve studying the entire population of some limited group. Ornstein (2013:85) adds that a purposive sample should resemble the population of interest. Therefore the researcher selected the Faculty Research Office personnel who administer and provide research services to postgraduate students and academic staff.

The next important aspect in the research process is data collection

### **3.6 DATA COLLECTION**

According to Dlabay and Scott (2011:442), data may be placed into two major categories: primary and secondary data. Secondary data is disseminated through some media like external or internal reports, newspapers, hand books, magazines or websites, scholarly journal articles and books (Srivastava and Rego, 2011:5). Primary data are collected by the investigator directly from study participants by in-person or telephone interviews, mail survey, or computerized questionnaires to address a specific question or hypothesis (Velentgas, Dreyer, Nourjah, Smith and Torchia, 2013:109).

In this study, the researcher used a combination of both primary and secondary data, first conducting secondary research to understand the theory and framework of this study. This was then followed up with primary data using appropriate data collection instruments.

### **3.7 DATA COLLECTION INSTRUMENTS**

Data collection instruments play a critical role in designing and developing research projects. It is therefore of vital importance to select suitable instruments or tools (Richey and Klein, 2007:106; Hall, 2008:146; Marwat, 2010: 1).

The collection of data for this study took place between August 2013 and February 2014. Due to a very poor response rate, the period for data collection was extended to allow the staff and student samples to complete the questionnaire. Interviews with the Faculty Research Office personnel staff were conducted from 07 to 14 October 2013.

#### **3.7.1 The questionnaires**

A questionnaire is a printed list of questions that respondents are asked to answer (Goddard and Melville, 2007:47). The questionnaires in this study were designed and disseminated to obtain primary data from MTech and DTech students, and members of the academic staff. Both questionnaires included open-ended and closed questions. Open-ended questions were included on the questionnaires to allow the participant to record their ideas in their own words in the space provided (Cooper and Schindler, 2008:340). As explained by Babbie (2011:255), the closed questions required the respondent to select an answer from among a list provided by the researcher.

Both sets of questionnaires had an optional section (on the last page) for follow-up interviews. Participants were asked to complete this section only if they were willing to participate in an interview. They were asked to provide their contact details. They were informed that this section would be removed from the main questionnaire before it was sent for analysis. This was done to ensure the participants' anonymity and to maintain the confidentiality of the

information they provided. They were also assured that only the researcher and his supervisor would have access to the information provided on this page. The questionnaire in this study played a pivotal role in assisting the researcher to understand what services and academic support are provided to academic staff, M and DTech students by Faculty Research Offices.

### **3.7.1.1 Design and layout of the questionnaires**

Designing a questionnaire is an integral part of the research process. According to Wimmer and Dominick (2011: 198), the questionnaire should be organized in a logical sequence, proceeding from the general to the specific and the transition between question sections should be clear and logical. Lowe (2007) adds that a good questionnaire moves from objective facts to subjective attitudes and opinions and allows you to obtain justifications for answers to open questions and to sensitive, personalised data.

Acknowledging the above, the questionnaires in this study were carefully designed to collect information about key variables that might help explain differences in research structures and services (Anderson and Morgan, 2008:102) put in place in the various Faculty Research Offices to administer effective and efficient postgraduate research support.

Two sets of questionnaires were designed: one for academic staff (Appendix H) and the other for M and DTech students (Appendix I). The MTech and DTech student questionnaire was conducted as an online survey. The reason for disseminating the questionnaire and the Consent Form (Appendix D) electronically is as follows. Some M and DTech students are registered part-time and are therefore not always on campus; sending the Consent Form *via* email and waiting for the participants to sign and send it back to the researcher was going to be time consuming and would probably have resulted in a low return rate. The researcher therefore attached the Letter of Information and Consent Form to the questionnaire.

The researcher opted to personally administer the academic questionnaires *via* the department secretary. The reason for conducting it personally was

because the researcher believed that, due to academic staff work commitments or workload, an emailed questionnaire could be easily overlooked, or easily forgotten (Stausberg and Engler, 2011) (discussed later in this chapter).

Both sets of questionnaires contained a covering letter (Appendix B and C), a letter of information and a consent form (Appendix D and E). The covering letter included brief information about the researcher and also gave the participants an understanding of what the questionnaire was about. The letter of information gave a brief introduction and purpose of the study; explained the procedures of the study, informed them that participation was voluntary and that they could withdraw from the study if they chose to do so. It also outlined clearly the measures taken to ensure participants' anonymity and confidentiality. The consent form also assured the participants of their anonymity, confidentiality and the protection of their rights and welfare.

The academic staff questionnaire focused on the services and resources put in place by the Faculty Research Offices to assist academic staff members who are engaged in research activities or who are registered for postgraduate studies. The questionnaire was divided into three sections, namely Section A: Biographical information, Section B: Services provided by my Faculty Research Office and Section C was optional. The questionnaire consisted of 5 pages and included 25 questions. The purpose of the questionnaire was clearly stated and concise instructions were provided for the completion thereof. The first four closed questions assisted the researcher to gather background information about the participants such as biographical details, employment position, educational level, years of employment, and the capacity in which the respondent is employed by the university.

Section B included closed and open-ended questions. This section focused on the structures and services provided by Faculty Research Offices across six campuses. Open-ended questions allowed respondents to give their views on how they perceived the structures and services offered by their respective Faculty Research Offices. The respondents were granted an opportunity to advise on services they wanted their Faculty Research Offices to administer,

their views and opinions on upgrading their qualifications and registering for postgraduate studies. Participants were asked to complete section C only if they were willing to participate in a follow-up interview. The questionnaires were dropped in a safe box created by the researcher. Section C was removed from the questionnaire before sending to the statistician for analysis. This retained respondents' anonymity.

For the online survey questionnaire, the researcher attached the Letter of Information and Consent Form (Appendix D) to the questionnaire. Instead of signing the Consent Form (since the questionnaire was disseminated electronically), the participants were asked to place a tick (✓) in the box (□) provided to indicate that they consented to participate in the study. The Consent form was returned together with the completed questionnaire as there was no way of identifying the participant. To ensure anonymity of the respondents, the students returned their completed online questionnaires to an electronic drop-box created by the researcher. Baskharan and LeClaire (2009:25) describe an online survey as a survey that collects data electronically from the target audience over the internet. Rubin and Babbie (2010:117) add that the main advantage of online survey is that they can quickly and inexpensively be sent to very large numbers of prospective respondents anywhere in the world.

The M and DTech questionnaire included succinct instructions about how to complete the questionnaire (an example on how to answer the questionnaire was also included). The purpose of the student questionnaire was to gather their perceptions and expectations regarding services provided by the Faculty Research Offices to postgraduate students. The questionnaire contained 17 pages and three sections.

Section A had ten questions. The first five closed questions assisted the researcher to gather background information about the participants such as biographical details, educational level, and faculty in which they were currently registered. Questions 6 to 10 sought information regarding the participant's

knowledge about the Faculty Research Office in the faculty he/she is registered and the reasons for using the services of the faculty research office.

Section B was based on an adaptation of the SERVQUAL instrument (Parasuraman, Zeithaml and Berry, 1988). Students were requested to rate their levels of expectation as well as their perceived experiences regarding service quality provided by their Faculty Research Offices. The purpose of this section was to assist the researcher to identify and understand what research structures and services are in place to administrate and monitor postgraduate research in Faculty Research Offices and to find ways to improve services provided to postgraduate students. Questions 37 to 40 included open-ended questions where the respondents were encouraged to add comments (positive or negative) about their Faculty Research Offices.

Section C was optional and requested personal information from participants such as their names and contact details so that the researcher could contact them for an interview if more information was required based on the responses on the questionnaire. Participants were informed and assured that their details would be kept confidential, only the researcher and his supervisor would have access to their details.

### **3.8 PILOT STUDY**

A pilot study is a smaller scale version of the main study and is designed to check that the design is doing the job it is designed to do (Hall, 2008:79). The aim of the pilot study was to try out the research approach to identify potential problems that might affect the quality and validity of the results, (Blessing and Chakrabarti, 2009:114). Monsen and Van Horn (2008:5) believe that a pilot study is essential and can greatly improve the proposed study design and methodology. The pilot study was conducted among 10% of the population from each group of the research sample. The researcher formulated draft academic staff, M and DTech questionnaires and submitted these to his supervisor to check whether the questions would provide sufficient information that would answer the research questions. The layout of the questionnaire was checked; the wording of the questions was also checked to determine if there

were any misleading questions and to detect if there were any biasness in the questions.

A pilot test was then conducted among a sample of forty respondents which included twenty academic staff, and twenty M and DTech students to check further for any ambiguities or confusing questions in the questionnaire. The respondents raised concerns about the length of the questionnaires. It was noted that respondents failed to complete all questions and that some provided irrelevant information in some questions. Feedback indicated that the respondents did not fully understand or were confused by some of the questions and this resulted in some of the questions not being completed. The researcher then attended to each of the problem questions and they were reconstructed (Hall, 2008:79). These changes made sentences clearer, more comprehensible, and the questionnaire more coherent (Zheng, 2012: 67).

The pilot study confirmed the reliability and validity of the questionnaire indicating that it measured what it was designed to measure and provided answers to all of the study's research objectives. The next section discusses the interviews.

### **3.9 STRUCTURED INTERVIEWS**

According to Klenke (2008: 124); Myers (2013:122); and Taylor, Sinha and Ghoshal (2006:76), structured interviews involve the use of pre-formulated questions, usually asked in a specific order and sometimes within a specified time limit. This requires considerable planning beforehand in order to make sure that all the important questions are included in the script and that the interviewer can control the flow of the verbal exchange by asking each question sequentially and recording the responses. In this study, structured interviews were conducted with Faculty Research Office staff members. These included the Faculty Research Co-ordinators, Faculty Research Officers and Faculty Research Assistants.

The interviews were conducted face-to-face and, on the interviewees' request, were conducted in their offices. This request was due to work commitments and time constraints and it allowed the interviewees to feel comfortable and relaxed

during the interview session. The interviews took place from 07 -15 October 2013 between 11:00-13:00. Dates and times of the interviews were negotiated between the interviewees and the researcher.

The key focus of structured interviews was to acquire information on the functioning of the office, determining good practice and determining their experiences as a service provider. The interviews also assisted the researcher to obtain the interviewees' perception on the structures and services they provide.

Written permission was obtained from the respondents to record the interviews; they were also required to sign and return the Consent Form (Appendix F and G) before the interviews took place. The interviews were audio-recorded, transcribed and sent to the respondents to verify that the recorded information was correct. Six Faculty Research Co-ordinators, six Faculty Research Officers and ten Faculty Research Assistants were interviewed face-to-face. The interviews were held in the interviewees' offices, this technique being ideal to allow the interviewees to provide answers in a familiar, safe and comfortable environment which enabled the interviewer to uncover some real facts (Bajpai, 2011: 142)

### **3.10 SEMI-STRUCTURED INTERVIEWS**

Semi-structured interviews use an interview schedule containing only open-ended questions that can be varied by the interviewer to follow up points relevant to the research questions or to pursue matters in greater depth (Hall, 2008: 156). Klenke (2008: 126) explains that the advantage of semi-structured interviews are that more complex issues can be probed, answers can be clarified, and a more relaxed research atmosphere may contribute to the discovery of more in-depth and sensitive information. Based on this definition, the purpose of conducting semi-structured interview in this study was to gather further data where respondents did not supply sufficient information on the questionnaire or where responses were unclear or incomplete. Ten M and DTech students also took part in the semi-structured interviews; four of which were conducted face-to-face, and the other six telephonically. The interviews were negotiated depending on the interviewees' availability around campus.

### **3.11 ADMINISTRATION OF THE QUESTIONNAIRE**

A sample size of 278 academic staff was randomly chosen to participate in the study. In distributing the academic staff questionnaire to the sampled members, the researcher requested assistance from the relevant departmental secretaries across each of the six campuses. The completed questionnaires and consent forms were dropped in a box created by the researcher in various departments across the campuses. This retained the respondents' anonymity. A period of approximately six weeks was given to complete the questionnaire, but due to the year-end exams, a further two weeks' extension was given. The researcher issued follow-up reminders with the help of the departmental secretaries to address the initial poor response rate (Mudaly, 2013: 51). As stated by Basit (2010: 94), follow-up calls and emails usually result in more returned questionnaires.

The student questionnaire was conducted as an online survey; therefore the Consent Form and the questionnaire were administered *via* email to the target population.

Preliminary work was done before the questionnaire was administered for the main study. The preliminary work included a pilot study discussed in the next section. The next section also explains briefly the ethical issues related to this study.

### **3.12 ETHICS**

Ethics are generally understood to deal with beliefs about what is right or wrong, proper or improper, good or bad. Since social science research deals with human beings, it is necessary to understand the appropriate and officially permitted responsibilities of conducting research (Oliver, 2010:12; Rosentreter, 2012: 65). Miller, Mauthner and Jessop (2012:14) define ethics as moral deliberation, choice and accountability on the part of researchers throughout the research process.

In this study the researcher considered ethical issues from the outset of the research project by applying for permission to conduct research at the selected university *via* the university's Research and Postgraduate Support office. After

obtaining this permission the research proposal, which was approved by the Faculty Research Committee was submitted, together with each of the data collection instruments, consent forms, letters of permission, and covering letters to the Institutional Research Ethics Committee (IREC) for ethical clearance. On obtaining ethical clearance, the researcher tested the data collection instruments by means of a pilot study (see above) and made the revisions required. The outcome of the pilot study was submitted to IREC for full clearance before data gathering for the main study began.

The participants in the study were clearly informed of all the outcomes and consequences of the study before signing the consent form. They were also informed that participation was voluntary and that they had the right to withdraw from the study at any time. This research did not expose participants to risks, medical examinations, or any situation that could be harmful either mentally or physically. Participants were assured that they would remain anonymous and that their responses would be kept confidential throughout the course of the study. They were further assured that any identifying information would be removed before the questionnaires were sent for analysis, and that the audio-recordings would only be accessible by the researcher and his supervisor.

Full ethical clearance for the interviews and questionnaires was granted on 15 August 2013 by the IREC (Appendix K.). The information obtained from the questionnaires and interviews were used solely for the purposes of the study.

### **3.13 RELIABILITY AND VALIDITY**

Reliability and validity in research refers specifically to the measurement of data used to answer the research question: 'The data collected is only as good as the instrument used to collect it' (Wood and Ross-Kerr, 2011: 198). The extent to which results are consistent over time and an accurate representation of the population under study is referred to as reliability, and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable (Golafshani, 2003: 598, Kumar, 2008). In short, a reliable data collection instrument is one that is relatively free from measurement error (Connaway and Powell, 2010:64). According to

Krishnaswamy, Sivakumar and Mathirajan (2006: 264) reliability is a partial contributor to validity. The results of the pilot study indicated that the questionnaire was clear as it answered the objectives of the study and proved to be reliable. Validity refers to the degree to which a scale measures what it is supposed to measure (Alpaslan, Du Plooy, Gelderblom, Van Eeden, Van Rensburg, and Wigston, 2010:195). Cottrell and McKenzie (2010) adds that, validity in measurement addresses the degree to which the concept or concepts under study are accurately represented by the particular items on your questionnaire, test, self-report form, or other measuring device.

Cronbach's Co-Efficient Alpha is a reliability co-efficient that indicates how each of the items in a set is positively correlated to the others. Cronbach's Alpha is computed in terms of the average inter-correlations among the items measuring the concept. The closer Cronbach's Alpha is to 1, the higher the internal consistency reliability (Sekaran, 2006: 307). Due to the nature of the research questionnaire for academic staff, it was difficult to determine the reliability; hence reliability was obtained from section B of the M and DTech questionnaire. The overall reliability scores for sections were high (0.978 for expectations and 0.972 for perceptions). This indicates a high degree of acceptable, consistent scoring for the different categories for this research. All of the categories have (high), acceptable reliability values that exceed the minimum required value of 0.700.

<b>Dimension</b>	<b>Number of Items</b>	<b>Expectations</b>	<b>Perceptions</b>
Reliability	4	.930	.851
Responsiveness	19	.959	.939
Assurance	6	.969	.936
Empathy	6	.950	.824
<b>Overall</b>	<b>35</b>	<b>.978</b>	<b>.972</b>

*Table 3.1: Reliability scores*

Any measuring instrument is considered to be valid when it measures what it proposes to measure and construct validity is a prerequisite for achieving results that can be viewed with confidence (Ketchen and Bergh, 2006:399). Hence the pilot study assisted the researcher in determining the validity and reliability of the questionnaires as a uniform rehearsal for the final research project (Weathington, Cunningham and Pittenger, 2012:302).

### **3.14 DATA ANALYSIS**

Data analysis is the application of reasoning to understand the data gathered (Zikmund and Babin, 2010:59). After data are collected, proper tools and techniques should be used for classification and analysis of data. The analysis of data after collection yields a set of results either in the form of statistics regression equations, identification of significant factors or in the form of acceptance or rejection of different hypotheses (Panneerselvam, 2006: 14).

#### **3.14.1 Data preparation**

Data preparation (or pre-processing) in this context means the manipulation of data into a form suitable for further analysis and processing. It is essential for successful data excavating (Stewart, 2010). The raw data collected in the field were transformed into information to answer the questions (Zheng, 2012:71; Monette, Sullivan and DeJong, 2011:432).

Data coding is the first step in data preparation. Following Rubin and Babbie (2012:322), data coding involved transferring separate code numbers to each category of each variable in the study. As such, the researcher assigned a number to each questionnaire received. Each response was also given a number to enable effective coding.

#### **3.14.2 Statistical analysis**

The data collected from the responses was analysed with SPSS version 22.0. The results are presented in the form of descriptive statistics as graphs, cross tabulations and other figures for the qualitative data that was collected. Inferential techniques include the use of correlations and chi square test values which are interpreted using the p-values.

### 3.15 SUMMARY

This chapter outlined the methodology used in conducting the study. A mixed methods approach was applied. Questionnaires, structured interviews and semi-structured interviews were used to collect both qualitative and quantitative data to address the research objectives. Academic questionnaires were administered *via* the departmental secretaries and the postgraduate student questionnaire was administered electronically to collect data from the sample. A pilot study was carried out to ensure reliability and validity of the data collection instruments. Privacy and confidentiality were maintained during the administration of the questionnaire. Ethical clearance was sought and granted by the Institutional Research Ethics Committee to ensure that the research was conducted in an appropriate ethical manner.

The next chapter presents the analysis of the data and discussion of the results.

## **CHAPTER FOUR**

### **RESEARCH FINDINGS AND DISCUSSIONS**

#### **4.0 INTRODUCTION**

Chapter Three presented the study's research methodology and research design which included a discussion and described how data was gathered from academic staff, M and DTech students and from Faculty Research Office staff using questionnaires and interviews.

This chapter presents the results and discusses the findings obtained. The questionnaire was the primary tool used. The data collected from the responses was analysed with SPSS version 22.0. The results will present descriptive statistics in the form of graphs, cross tabulations and other figures derived from the quantitative data that was collected. This quantitative data will be qualitatively interpreted. Inferential techniques include the use of correlations and chi square test values which are interpreted using the p-values.

Academic questionnaires and M and DTech questionnaires are presented separately as these focus on different aspect of service delivery in post-graduate studies. Interview findings from Faculty Research Co-ordinators and Faculty Research Officers/Administrators are presented together where common questions were asked. Data gathered from the interviews was grouped according to themes as some responses overlapped. Interviews were organised around themes to guard against interviewee excessive response.

#### **4.1. STATISTICAL ANALYSIS**

Statistics involves collecting, summarizing, and analysing data. All three tasks are critical. Without summarization and analysis, raw data are of little value, and even sophisticated analyses cannot produce meaningful information from data that were not collected in a sensible way (Peck, Olsen and Devore, 2011: 07). Krishnaswami and Satyaprasad (2010: 161) add that statistical data analysis:

- summarizes a large mass of data into understandable and meaningful form;
- makes exact description possible;
- facilitates identification of the causal factors underlying complex phenomena;
- enables reliable inferences to be drawn from observational data (where data is collected and analysed in order to predict or make inferences about situations that have not been measured in full); and
- helps make estimations or generalizations from the results of a sample survey.

According to Krishnaswami and Satyaprasad (2010: 161) analysis may therefore be broadly classified into (1) descriptive analysis and (2) inferential analysis.

#### **4.1.1 Descriptive analysis**

This type of analysis describes the nature of an object or phenomenon under study. This analysis provides us with profiles of organisations, work groups, persons and other subjects on any of a multitude of characteristics such as size, composition, efficiency, preferences, etc. (Krishnaswami and Satyaprasad, 2010: 161). As noted above, two types of statistics are used in quantitative research: descriptive statistics and inferential statistics. Descriptive statistics are used for two major purposes. First, they are used to summarize a data set. Secondly they are used to numerically describe sample units, phenomena, and other variables of interest (McNabb, 2008:153).

#### **4.1.2 Inferential statistics and Chi-square**

Inferential statistics are used to make assumptions or inferences about a population from the measurement taken of sample units drawn from the population (Krishnaswami and Satyaprasad, 2010: 161). There are three inferential statistical tests namely z test and the *t* test and the third one is the chi-square. The z test and the *t* test, are parametric tests that require us to make certain assumptions about estimates of population characteristics, or parameters. The chi-square ( $\chi^2$ ) (also known as nonparametric test) is a test

that does not involve the use of any population parameters, and the underlying distribution does not have to be normal (Jackson, 2012:190). The reason for using inferential statistics and chi-square is to try to reach conclusions that extend beyond the immediate data alone, thus, in this study, trying to infer from the sample data what the population might expect and perceive from the FRO using the four Servqual dimensions. The dimensions will be discussed later in this chapter.

## **4.2 RESPONSE RATE**

Of the 278 questionnaires administered to academic staff 141 unspoilt questionnaires were returned. Twenty five spoilt questionnaires had to be rejected as there were large parts left out by respondents. The reasons for academic respondents leaving the questionnaire only half answered are unknown but may be due to heavy workloads and the need to provide very precise information. Of the 260 online questionnaires disseminated to M and DTech students, 161 were returned, which means a 62% response rate was achieved. According to Kittleson (1995), on average online surveys receive a 25% to 30% response rate. The response achieved is also higher than Nulty (2008) would expect as he concludes that, on average, online surveys receive a 33% response rate.

Data was also collected from three Faculty Research Co-ordinators (RC) and four Faculty Research Officers/Administrators (RO). The other two Faculty Research Co-ordinators and one Faculty Research Officer/Administrator were unavailable for interviews due to other commitments despite numerous attempts *via* telephone calls and emails to persuade them to avail themselves for interview.

## **4.3 PRESENTATION OF THE FINDINGS**

As stated above, in order to provide a clear overview of the findings, the presentation of the findings from academic staff, M and DTech students and Faculty Research Office staff was analysed separately. The results will present the descriptive statistics in the form of graphs, cross tabulations and other figures from the qualitative data that was collected. The presentation of the

findings from the academic questionnaire starts with an analysis of biographical data arising from Section A, followed by Section B which focuses on the services provided by Faculty Research Offices.

#### 4.4. THE RESEARCH INSTRUMENT

The research instrument consisted of 22 items, with a level of measurement at a nominal or an ordinal level. The questionnaire was divided into two sections which measured various themes.

Section A: Biographical Details

Section B: Services provided by my Faculty Research office

Section C: General Comments

##### 4.4.1 Biographical information

This section presents the descriptive statistics of biographical information obtained from academic respondents. According to Asaad and Hailaya, (2003) and Peck, Olsen and Devore, (2011: 7) descriptive statistics are methods employed in summarizing the obtained data into frequency distribution, and percentage distribution. It develops and utilizes techniques for the careful collection and effective presentation of data to highlight patterns otherwise buried in unorganized data (Burns and Burns, 2008: 6).

##### 4.4.1.1 Academics position

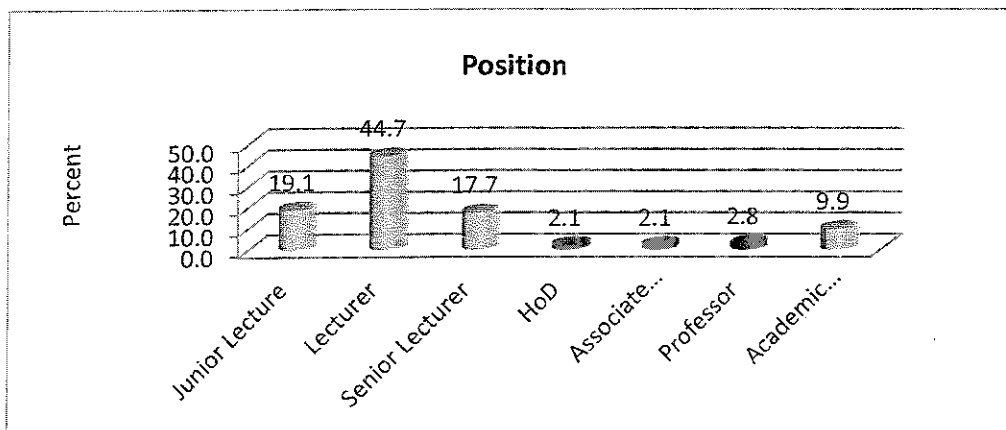


Figure 4.1: Position

Figure 4.1 indicates the positions held by academic respondents at the selected university. Almost half of the respondents were Lecturers (44.7%), 19.1% were Junior Lecturers, and 17.7% Senior Lecturers. The other percentage is shared amongst HoD, Associate Professor, Professor and Academic Support personnel. The table below indicates the qualifications of respondents and their years of experience working at the university.

#### 4.4.1.2 Cross-tabulation\*year of experience and qualification

		How many years have you been working at DUT?					Total	
		Less than a year	1-6yrs	7-12yrs	13-18yrs	19-24yrs		25-30yrs
Bachelor of Technology	Count	8	22	7	3	0	0	40
	% within Qualification	20.0%	55.0%	17.5%	7.5%	0.0%	0.0%	100.0%
Degree	Count	7	11	10	6	0	0	34
	% within Qualification	20.6%	32.4%	29.4%	17.6%	0.0%	0.0%	100.0%
Masters	Count	0	17	12	8	2	0	39
	% within Qualification	0.0%	43.6%	30.8%	20.5%	5.1%	0.0%	100.0%
Doctorate	Count	0	2	0	0	4	10	16
	% within Qualification	0.0%	12.5%	0.0%	0.0%	25.0%	6.25%	100.0%
Other (Specify)	Count	0	0	6	0	3	1	10
	% within Qualification	0.0%	0.0%	60.0%	0.0%	30.0%	10.0%	100.0%
Total	Count	15	52	35	17	9	11	139
	% within Qualification	10.8%	37.4%	25.2%	12.2%	6.5%	7.9%	100.0%

Table 4.1 Qualification \* How many years have you been working at DUT? Crosstabulation

Higher education in South Africa is increasingly challenged to recruit and retain adequate numbers of qualified academics and researchers who will constitute the next generation of research-active staff members (Altbach, 2009). The current low level of qualified staff resulted from a policy of UoTs in South Africa which did not require a doctorate (Rosentreter, 2012). Hence the cross tabulation above reveals that out of 141 respondents, only ten (6.25%) of staff with between 25-30 years of experience hold a Doctoral qualification. When interviewed on 22 August 2010 by Sharon Dell, Professor Mouton (Director of the University of Stellenbosch's Centre for Research on Science and Technology) stated that only around 40% of South Africa's 18 000 full-time academics have PhDs and statistics show that, overall, South Africa is producing doctorates at only one eighth of the rate of the European Union in the 25 to 34-year age group. Between 1-6 years of experience, seventeen (43.6%) hold a Masters, with eleven (32.4%) holding an Honours Degree and twenty two (55.0%) being a Bachelor of Technology. Although most of the academics who hold doctorates are found between 25-30 years of experience, tremendous work by the institution to motivate and encourage academics is starting to pay off. With structures put in place by the university there is still great potential for academics to upgrade their qualifications.

#### 4.4.1.3 Capacity in which respondents are employed.

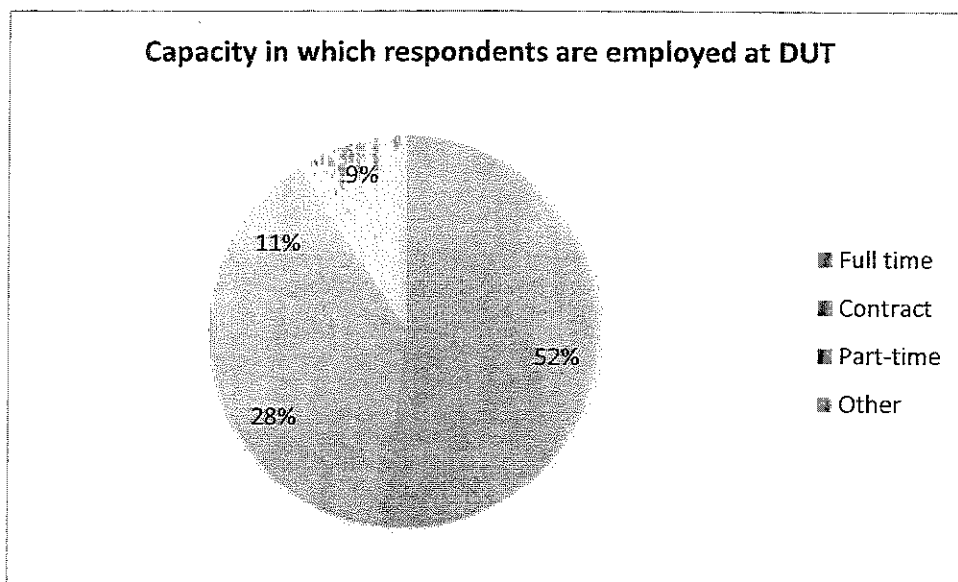


Figure 4.2: Capacity in which respondents are employed at DUT

Half of the respondents (52%) are employed full-time, with 28% being employed on a contract basis, 11% being employed part-time, followed by other (9%) which represents academics who work at DUT as substitutes when full-time academics are on leave or attending workshops or conferences.

#### 4.4.2 Section B: Services provided by Faculty Research Offices

This section reflects information pertaining to services provided by the Faculty Research Office to ascertain whether academics were receiving the perceived and expected research services from this Office. Below is a table reflecting the respondents' responses from statement 4.3.2.1 to statement 4.3.2.7.

Statement	Yes (%)	No (%)
4.3.2.1 Are you familiar with your Faculty Research Office?	83.7%	11.3%
4.3.2.2 Is it easy to find/locate your Faculty Research Office?	31%	59%
4.3.2.3 Is it easy to get information from your Faculty Research Office?	52.5%	38.3%
4.3.2.4 Do you use the services offered by your Faculty Research Office?	65%	27%
4.3.2.5 Does your Faculty Research Office offer programs/workshops to help staff and students to better their research skills?	65.2%	26%
4.3.2.6 Does your Faculty Research Office track students' progress in their studies?	37%	47%
4.3.2.7 Is there a comprehensive guide provided by the Faculty Research Office for postgraduate students?	22%	60.3%

Table 4.2

83.7% academics indicated that they were familiar with their FRO, the majority (59%) felt that it was difficult to locate. Slightly above 53% indicated that it was easy to get information whereas 38.3% found it difficult to get information and assistance from their FRO. The majority of respondents (66%) pointed out that they use the services provided by their FRO but a significant proportion (27%) were in disagreement. With the university making significant efforts to encourage academic staff to upgrade their qualifications, it was expected that the majority (65.2%) would be aware that their FRO offers research programs/workshops. However there were still 26% of respondents who were not aware of this. Even though the information is circulated to academics regarding conferences and research workshops to better their research skills, it

is evident that not all receive that information, hence the circulation of workshop notices and communication needs to be improved.

Providing a progress report for each student involved in postgraduate research is important as it provides an insight into how the student is progressing in his/her studies. It was therefore significant that only 37% were aware that their FRO tracks students' progress. 47% of academics indicated that their FRO was not tracking their students' progress. Regardless of how the postgraduate guides were made available by the institution, most of the academics (60.3%) indicated that their FRO was not giving them this guide which contains comprehensive and detailed information in terms of postgraduate studies, research processes and procedures and what is expected from a postgraduate student.

The following table shows the degree in which the academics deal with the FRO.

#### 4.4.2.1 Academic staff dealings with FRO

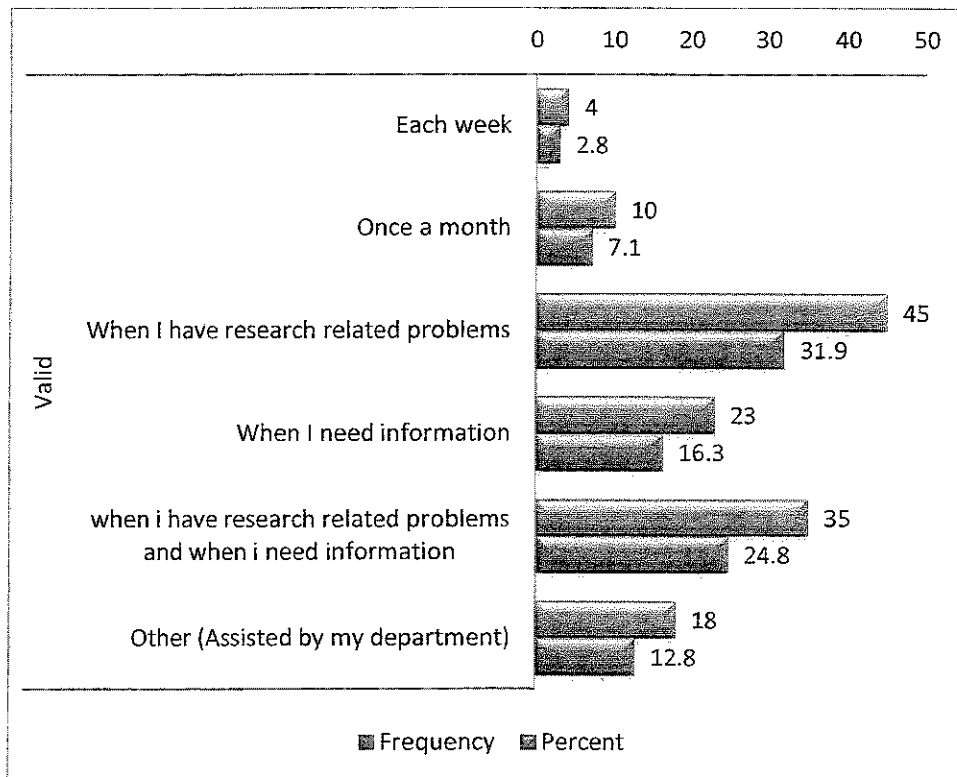


Figure 4.3: Academic staff dealings with FRO

With the FRO offering a variety of research services both to academic staff and postgraduate students, one would assume that staff would visit/consult with their FRO frequently. However it is evident on *Figure 4.3* that most of the academic staff (31.9%) visit the FRO when they have research related problems, with 24.8% visiting the FRO when they have research related problems for which they need specific information. This is followed by academics who consult with the FRO when they need information. Although the majority have indicated that they seek assistance from the FRO, 12.8% indicated that they are assisted only by their departments. Some went on to say that:

- ❖ *‘the information pertaining to postgraduate studies is circulated by a Research assistant within the department and no information is sent by the Faculty Research Officer to us’;*
- ❖ *“most of the time the Faculty Research Officer is not available due to the fact that she is working for two FROs”;*
- ❖ *“our faculty does not have a FRO”*

This raises a number of concerns and the researcher believes that in order for academics to improve their qualifications, proper structures and support should come from FROs rather than from individual departments. Academics who do not use the research services offered by the FRO may not be getting or receiving up-to-date postgraduate information on research workshops, capacity building initiatives, etc. The departments may also not be well equipped to manage all of the research services provided to academics and M and DTech students by the FRO. The table below illustrates academics’ reasons for visiting the FRO.

#### 4.4.2.2 Reasons for visiting the FRO

### Academics reasons for visiting FRO

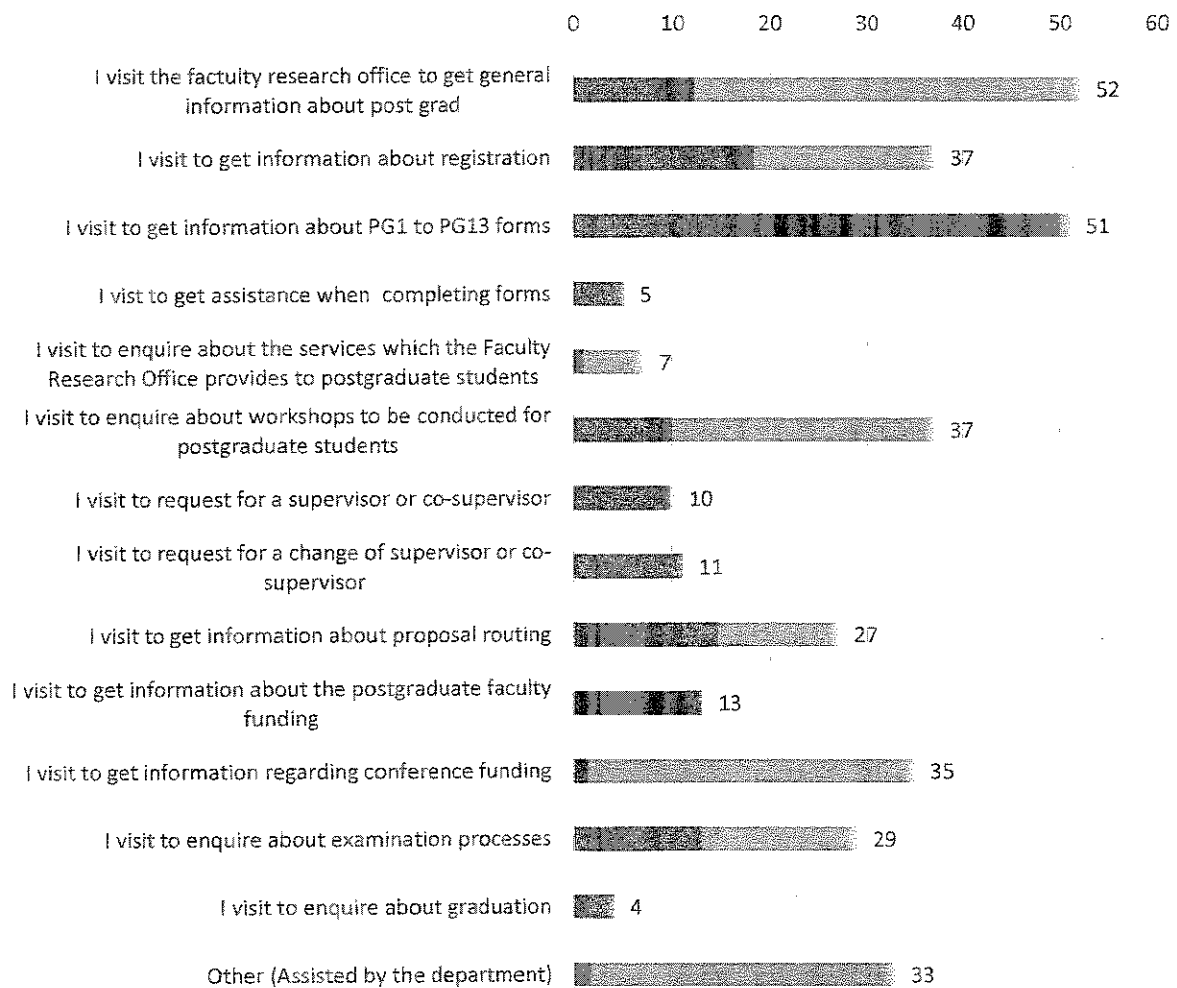


Figure 4.4: Academics reasons for visiting the FRO

While a small majority of academic staff (52%) indicated that they visit or consult with their FRO to get general information about postgraduate studies, 51% visit to enquire about postgraduate forms (PG1-Pg13), with 37% indicating that they visit to get information regarding workshops to be conducted by their FRO. Noting that academics are expected to produce scholarly publications on a yearly basis, it should be noted that only 35% of academics indicated that they visit their FRO to enquire about conference funding. It is clear that the institution needs to pay urgent attention to providing assistance and information about conference application processes and what is required for attending conferences. It is also evident that a considerable percentage (33%) preferred to use their respective departments to get postgraduate assistance.

#### 4.4.2.3 Having a decentralised FRO

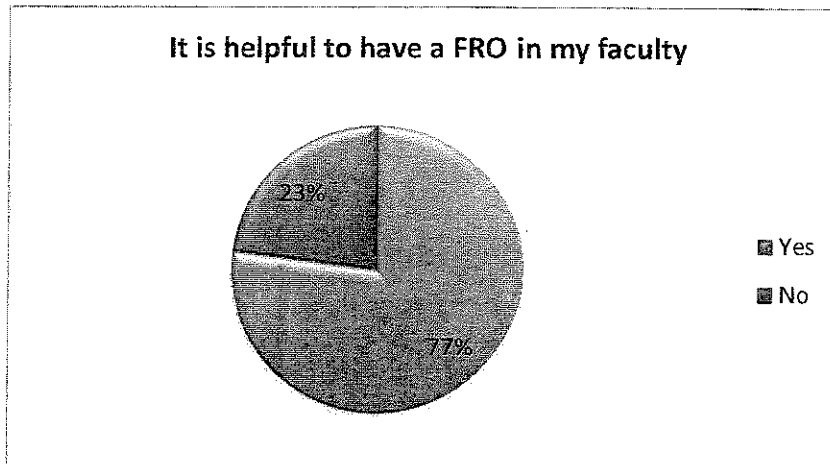


Figure 4.5: It is helpful to have a FRO in my faculty

It is evident on the graph above that most of the academics (77%) indicated that they find it helpful to have a FRO in their faculties. The majority indicated that it was helpful because:

- ❖ *"It efficiently tackles faculty issues and postgraduate issues";*
- ❖ *"It is easily accessible", and*
- ❖ *"Easy to deal with, rather than the Research and Postgraduate Support office".*

Although most indicated that it was helpful to have a FRO, some respondents (23%) perceived the FRO to be performing less effectively than expected. Comments from these respondents included:

- ❖ *"Our Faculty research Office does not even know that we exist on the Pietermaritzburg Riverside Campus";*
- ❖ *"No workshops are offered by the FRO, all workshops are organised and facilitated by the department"; and*
- ❖ *Everything pertaining to postgraduate studies is handled by the department. The FRO handles Faculty Research Committee meetings, examination processes and Higher Degrees submissions/liaison".*

A better understanding between the departments and the FRO is therefore essential as departments have a significant impact upon student outcomes

(Umbach and Porter, 2002: 213). A study by Pifer (2010) found that departments were highly competitive and that the faculty (staff) in these competitive departments were highly engaged which resulted in positive relationships within their departments. Consequently it is important that the university builds and clarifies how FROs relate to their respective departments over the six faculties, keeping in mind the end goal which is to work as one in guaranteeing that there is quality in postgraduate administration.

#### 4.4.2.4 Staff enrolment in postgraduate studies

While all UoTs attempt to encourage academic staff to enrol in postgraduate studies, not all are enrolling and completing their studies on time, in fact according to the Higher Education Monitor (2009) low progression rates and non-completion have an impact on funding of the HE institutions from both sponsors and government. Low enrolment, graduation and time-to-completion rates, as well as high dropout rates in some programmes, do not augur well for developing an adequate pool of high quality future academics (Tettey, 2009).

The graph below shows the percentage of academics encouraged to enrol in postgraduate studies.

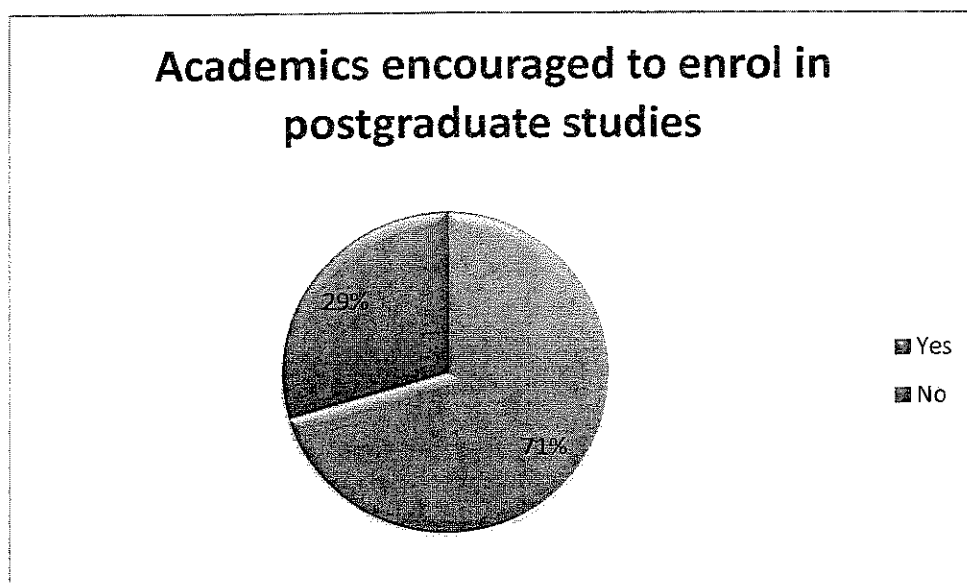


Figure 4.6: Academics encouraged to enrol in postgraduate studies

There is also a need for South Africa to recruit new PhD students who will be able to replace the academics reaching retirement age. Mouton (interviewed by Dell, (2009) said that PhDs in South Africa can not only be responsible for national innovation initiatives and economic development in the future but PhDs are also very important because you need a doctoral graduate to train the next generation of academics. The fact that the DHET is insisting that academics are hold a postgraduate degree, is evident from the graph above where 71% indicated that they are being encouraged to enrol in postgraduate studies. Most responses (68%) indicated that they are being encouraged by their Faculty Dean, HoD and Vice Chancellor *via* emails and in meetings. However 29% indicated that within their respective departments there is a lack of motivation to staff members and that academics are “dragging their feet” about committing themselves to postgraduate studies. Significantly only 3% indicated that they were encouraged by their FRO to undertake further studies.

The graph below illustrates the research services provided by the FRO to academics who were not registered for postgraduate studies.

#### 4.4.2.5 Research services provided by FRO to staff who are not postgraduate students but who are doing research

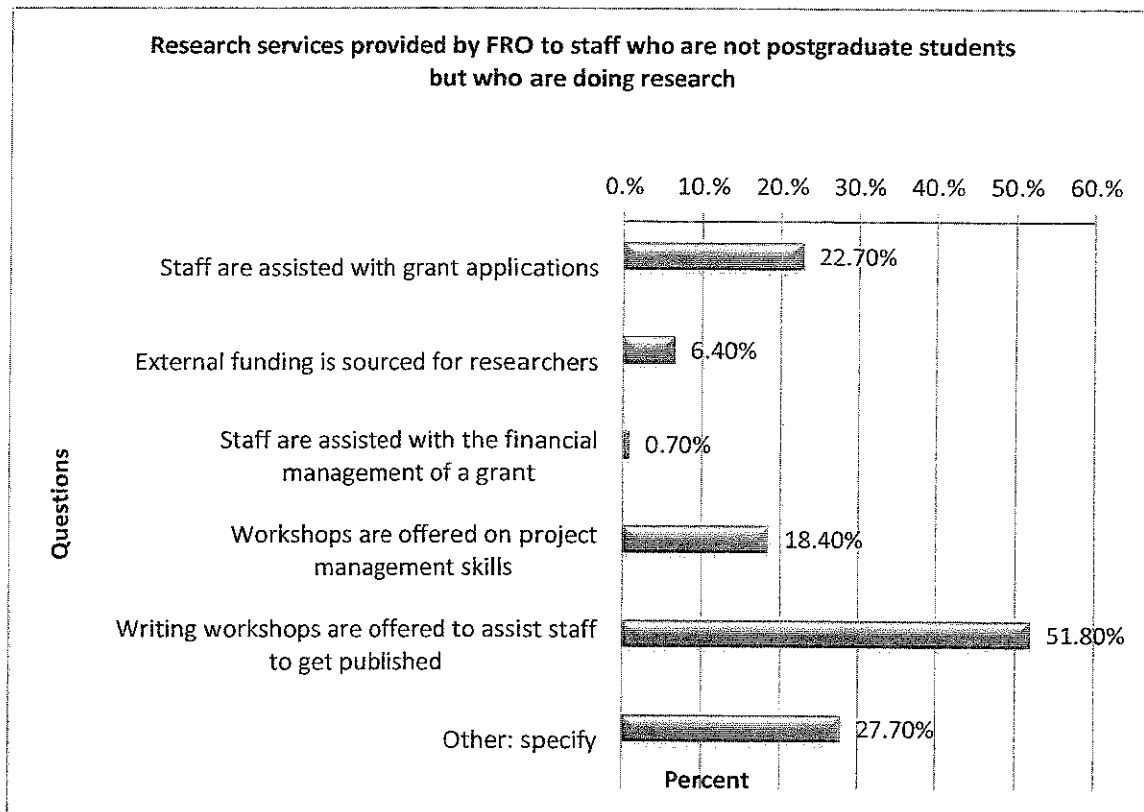


Figure 4.7: Research services provided by FRO to staff who are not postgraduate students but who are doing research

51.8% of the respondents indicated that they were assisted with writing workshops to equip them with skills to write for publication. With 'Other' (27.7%) indicating that they were unaware of what the faculty offers to staff members engaged in research but not registered for postgraduate studies. Some of them also indicated that workshops were organised by the university's Research and Postgraduate Development and Support Office but that the FROs were not assisting them. Again some said that they were not engaged in research and therefore were unaware of the services provided. 22.7% said that their FROs assisted them with grant application, while 18.4% indicated that workshops were offered on project management skills.

Funding of postgraduate studies remains an issue although the National Research Foundation has launched a sweeping new funding project to tackle the problem (Moodie, 2010). However staff members seemed unaware of where and how to get their projects funded. As depicted on the graph above, ignorance of the existence of external funding is a concern as only 6.4% of the

respondents stated that external funding is sourced for researchers carrying out research but not registered for postgraduate studies.

#### 4.4.2.6 Academic services preferred by academic staff to be offered by FROs

Academics voiced different opinions concerning what academic services they preferred. Most of the respondents indicated that they would prefer that a full day be dedicated to research related work/activities. There was also a request for FROs to assist with language editing and statistics; specific training on staff request (eg. Endnote) and more support on academics who are involved in research by reducing lecturing classes per day.

Academics also indicated that they felt it was unfair that the university was receiving a larger portion of the subsidy than the author responsible for writing journal articles when published in accredited journals. Most academics would like the money accruing from their publications to be deposited in their personal accounts. The researcher is of the opinion that while the favourite reward and encouragement may be money, allocating money to personal accounts would be problematic. The researcher is in favour instead of the current process: creating cost centres for academics who publish so that the money obtained from publications may then be utilised for further research related activities such as attending conferences or seminars, paying for conference fees and publication fees, for equipment, etc. This further develops the research capacity of the individual and of the institution

#### 4.4.2.7 Administrative support services offered by FROs preferred by academic staff.

Most of the respondents requested better administration of conference funding applications. They felt that the process of applying for conference funding was too slow and time consuming and that the process was not transparent as some applications for funding were rejected without reasons being provided. Others indicated that they needed administrative assistance in terms of processes such as registration, proposal routing, appointment of supervisors, changing of supervisors, requests for interruption/termination of study, and workshops on specific issues. One of the respondents said "*in order for us to*

*know what we need and prefer, we should be made aware of what is provided to us, and at this point I am really not aware”.*

Some were concerned about the examination processes, the respondents felt that the FROs were not giving feedback on examiners’ reports timeously: *“the waiting period is too much and during that time you are waiting patiently and nothing is being said to you and it is frustrating”* . Others suggested that the period given to examiners to examine a dissertation should be reduced from six weeks to four.

#### 4.4.2.8 Administration Service and Support

The administrative service and support provided underpinning any organisation is the element which steers the organisation in the right direction or if inefficient which can steer it off-course with serious consequences. Staff responses confirmed that FROs do provide research services and support but some were not providing uniformly effective services to their faculties.

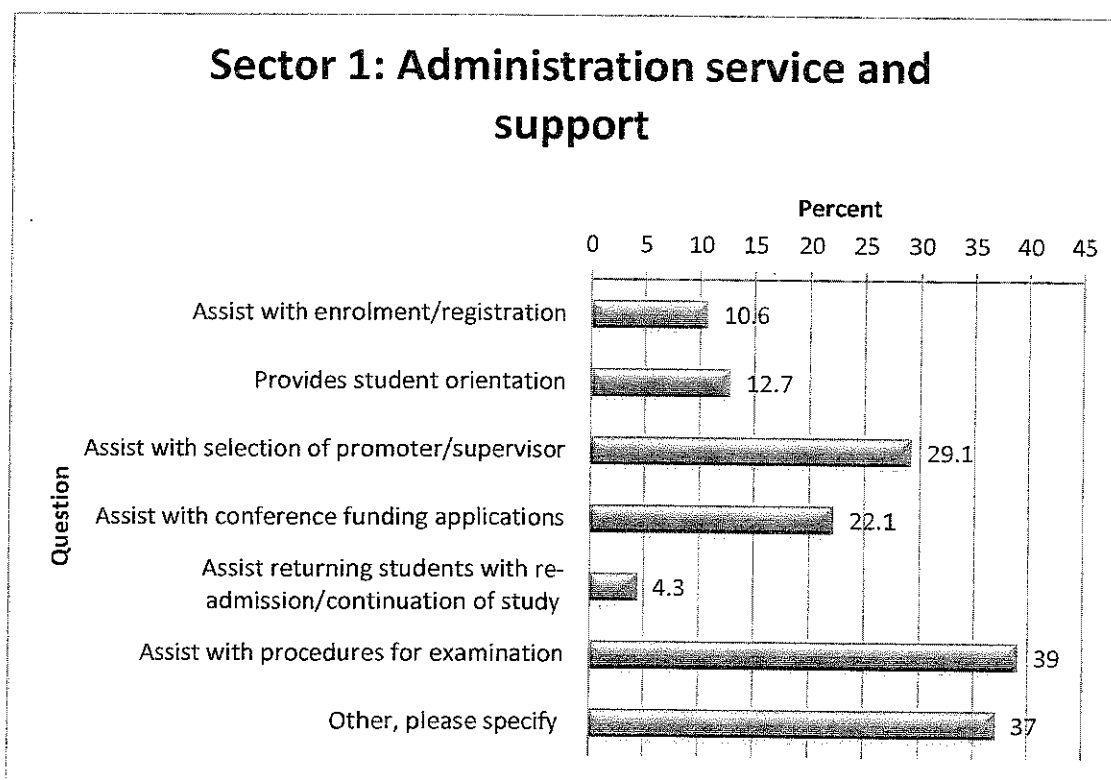


Figure 4.8: Administration service and support

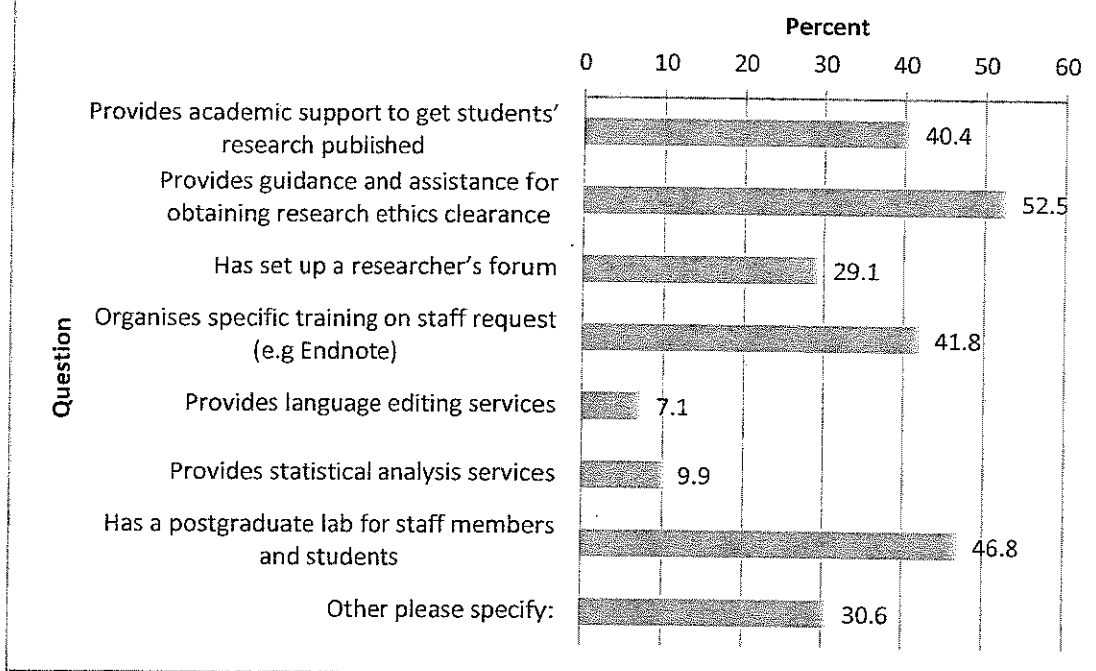
A significant minority of the respondents (39%) indicated that FROs assisted them with procedures for examination, with 37.1% responded “other” indicating that they were supported by their respective departments when it came to research related activities. Some academics complained:

- ❖ *“I only received invites to attend postgraduate induction which were facilitated by the Research and Postgraduate Support Office”;*
- ❖ *“No orientation was organised by the FRO to welcome the students to the faculty and give clarity on the faculty procedures and processes, of which I feel it is of great necessity”.*
- ❖ *“A Faculty Research Officer should also be placed in Pietermaritzburg Campus to assist us with research as we are uninformed of the services offered to staff members and students”*

29.1% stated that they were assisted with selection of promoters/supervisors, while 22.1% indicated that they were assisted with conference funding applications. However only 12.7% indicated that the FRO organises student orientation for staff and students to better understand the process and services provided to postgraduate students. 10% said that they were assisted with enrolment/registration, and only a small minority (4.3%) agreed that they were assisted with re-admission/continuation of study. This may be because registration is carried out by the Faculty Office.

#### 4.4.2.9 Research Capacity Development and support

## Sector 2: Research Capacity development and support



*Figure 4.9: Research Capacity development and support*

Although the majority of the respondents indicated that their FROs do provide Research Capacity development and support, 30.6% said that the FRO was not assisting them and that they got assistance from their departments and senior lecturers within the department. 52.5% of staff indicated that their FROs were providing assistance in obtaining research ethics clearance and 41.8% stated that specific training sessions were organised on request from staff. With 46.8% indicating that computer labs were available for postgraduate students and 40.4% respondents indicating that they received financial support to get their research published, the initiative to push and encourage postgraduate studies was evidently bearing some fruit. With the financial support offered to staff to publish their research it is expected that an increase in publications will be evident in the coming years, taking into account that a portion of the money that is earned from the state for research output is allocated to researchers' publication accounts (as discussed above) which is usable for purchasing equipment for research purposes, attending conferences, etc. (Schulze, 2008).

Respondents were also asked to state what system of communication was used to transmit and distribute information about postgraduate services offered to them. The majority indicated that they received emails from their FROs and some indicated that they receive information *via* emails from the department research assistants. Although academics acknowledged the support provided to them, they indicated that staff and students' expectations were not gathered. A study conducted by Kandiko, and Mawer (2013) found that students perceived a lack of clear information to have the greatest impact on their academic experience. The researchers recommended that, to support student expectations and choices, there should be greater transparency of information about services available.

Academics confirmed that conference attendance reports were requested after attending a conference and in most cases they were requested by the Dean's office and Head of department. The majority of respondents felt the structures and services provided for them suffered from a lack of personnel available within the FROs to assist the ever increasing intake of postgraduate students. 45% complained that there was no transparency in handling of documentation and that examination processes tended to be exhausting, examiners reports taking longer than expected to be received. 38% of academics pointed out that there was a need to place someone on the Pietermaritzburg Campus to oversee postgraduate inquiries and provide assistance and support to academics and students.

The following section will provide insights regarding M and DTech expectations and perceptions of FRO research services and structures.

#### **4.5 INTERPRETATION AND DISCUSSION OF M AND DTECH RESULTS**

As indicated above, the results of M and DTech students' questionnaire responses are presented here separately from those of the academics. As with the analysis of the results from the academic questionnaires above, the data collected from the responses and the results will present descriptive statistics in the form of graphs, cross tabulations and other figures from the quantitative

data that was collected. Inferential techniques include the use of correlations and chi square test values; which are interpreted using p-values.

#### 4.6 THE RESEARCH INSTRUMENT

The research instrument consisted of 87 items, with a level of measurement at a nominal or an ordinal level. The questionnaire was divided into 6 sections which measured various themes.

- Section A: Biographical Details
- Section B: Reliability
- Section C: Responsiveness
- Section D: Assurance
- Section E: Empathy
- Section F: General Comments

##### 4.6.1 Section A: Biographical information

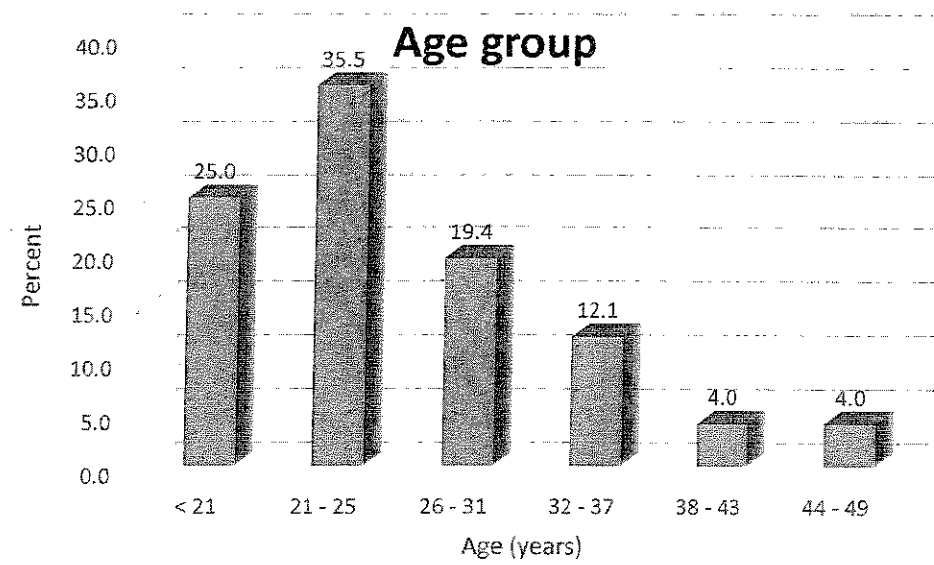


Figure 4.10: Age group

Approximately 80% of the respondents were younger than 31 years. This gives an idea of the pattern of respondents being young people who are interested in acquiring higher degrees as the institution is increasing postgraduate enrolment in accordance with DHET demands.

The mean and standard deviation of the respondents was determined using grouped data formulae and was  $26.1 \pm 7.2$  years. A little more than 70% of the respondents spoke either Zulu (38.7), English (21.8) or Xhosa (11.3) as their first language or mother tongue. Although the university is diverse as it accommodates national and international postgraduate students, very few students had Sesotho, Ndebele, Tshivenda, French, German, Hindi etc as their home language. Since the institution is within the region of KwaZulu Natal it is therefore understandable that most of the respondents were Zulu speaking.

The table below indicates how the respondents were registered within their respective faculties.

#### 4.6.2 Cross-tabulation: M and DTech registration per faculty

			Faculty in which you are registered						Total
			Accounting and Informatics	Health Sciences	Engineering and the Built Environment	Arts and Design	Applied Science	Management Sciences	
Please indicate information regarding your current registration	Master's Degree: Full time registered	Count % of Total	12 9.7%	14 11.3%	4 3.2%	4 3.2%	4 3.2%	19 15.3%	57 46.0%
	Master's Degree: Part time Registered	Count % of Total	7 5.6%	10 8.1%	0 0.0%	1 0.8%	1 0.8%	8 6.5%	27 21.8%
	Doctoral Degree: Full time registered	Count % of Total	8 6.5%	0 0.0%	2 1.6%	1 0.8%	2 1.6%	3 2.4%	16 12.9%
	Doctoral Degree: Part time registered	Count % of Total	4 3.2%	6 4.8%	1 0.8%	2 1.6%	0 0.0%	4 3.2%	17 13.7%
	In the process of registering	Count % of Total	0 0.0%	1 0.8%	0 0.0%	2 1.6%	0 0.0%	4 3.2%	7 5.6%
Total	Count % of Total	31 25.0%	31 25.0%	7 5.6%	10 8.1%	7 5.6%	38 30.6%	124 100.0%	

Table 4.3: Cross-tabulation: M and DTech registration per faculty

The majority of the respondents were registered for a full time Masters Degree (46.0%). There were similar numbers of respondents from the faculties of Management Sciences, Health Sciences and Accounting and Informatics (average = 27%). Similar or lower values (average = 6.5%) were from the remaining faculties. The largest grouping of respondents were full time Master's Degree students from the faculty of Management Sciences (15.3%).

#### 4.6.3 The period of registration

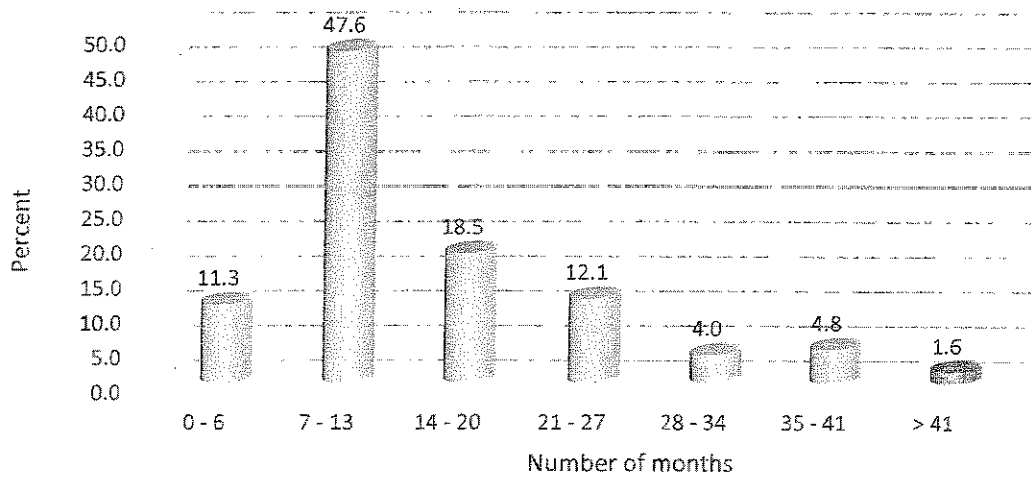


Figure 4.11: Period of registration

Figure 4.10 revealed that nearly half of the respondents (47.6%) had been registered for their respective qualification between 7-13 months; 18.5% being registered for 14-20 months; while 12.1% being registered between 21-27 months. The remainder was registered between 0-6 (11.3%), 28-34 (4.0), 35-41 (4.8) months. As reflected on table: 4.3 most of the respondents indicated that they were registered for a MTech qualification making figure 4.10 above justifiable in terms of the months/period in which the respondents had been registered. It is also important to understand that an MTech qualification at the selected university takes a minimum of one year after registration.

The table below indicates awareness and use of the Faculty Research Office

#### 4.6.4. Awareness and use of the FRO

		Are you aware that your faculty has a Faculty Research Office?		Total
		Yes	No	
Do you use the services provided by your Faculty Research Office?	Yes	Count 66	0	66
		% of Total 54.5%	0.0%	54.5%
No	Count 12	43	55	
	% of Total 9.9%	35.5%	45.5%	
Total	Count 78	43	121	
	% of Total 64.5%	35.5%	100.0%	

Table 4.4: Awareness and use of the FRO

Nearly two-thirds of the respondents (64.5%) were aware of the FRO. Of these, 54.5% used the services of the office, while a significant proportion (35.5%) indicated that they were unaware if their faculty had a FRO. This means that about 45.5% were not using the services provided by their FRO as they were either assisted by the departments in which they were enrolled, or by their supervisors.

Those students who indicated that they were not using the services provided by the FRO in their faculties were requested to provide reasons as to why they were not using the services and support provided by the FRO. Responses included:

- ❖ *“Since arriving, the Department has been very helpful and my supervisor played a crucial role in informing me of the processes”;*
- ❖ *“I normally use my Department (Media, Language and Communication); reason as to why I do not use the FRO is that I am not really clear of the services they provide”;*
- ❖ *“Not sure if we have one in our faculty as our Faculty Office assists us and the department”*
- ❖ *“Basically we have been struggling with research as we don't have research administrators as a result we tend to be a burden to our supervisors”;*

- ❖ *“I am working with my supervisors on my research proposal and I have never been told that there is a FRO, but since I have been told, I will visit the office to get enough information about postgraduate processes, services and most importantly workshops they offer”.*

The majority of respondents (54.5%) indicated that they use the services when they have research related problems, while 40% indicated that they used them when they needed information. Only 4% were using the services as often as once a week and the remainder were only using them on rare occasions – but this was often because they were rarely on campus.

49% of the respondents indicated that supervisors referred them to the FRO when they needed assistance; 47% were referred to the FRO when they had research related problems and 4% were referred to the FRO at least once a week. These students visited the FRO to seek assistance and clarity in different aspects of postgraduate studies. Their reasons for visiting the FRO are presented below.

#### 4.6.5 Reasons for visiting the FRO

## Reasons for visiting FRO

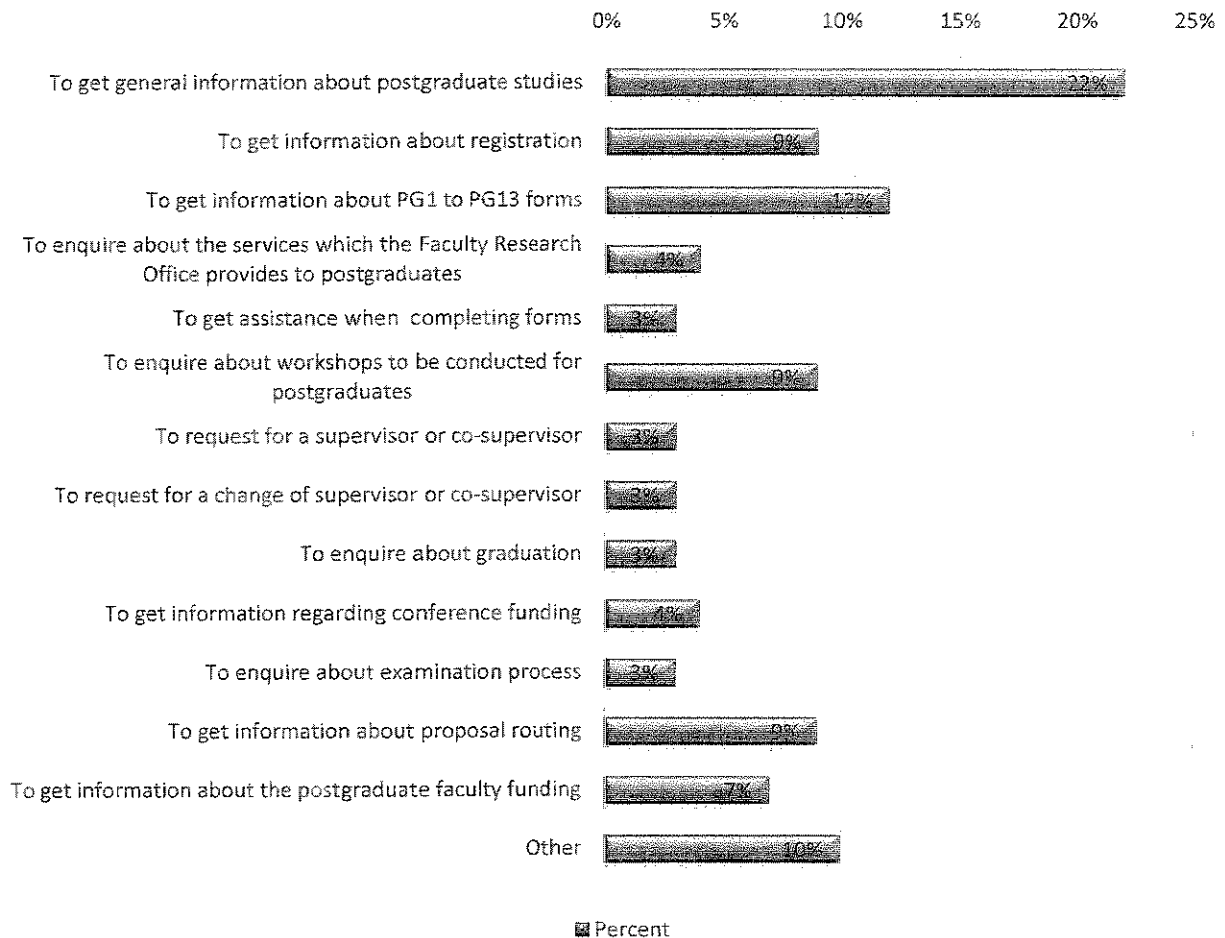


Figure 4.12: Reasons for visiting FRO

The graph above depicts different reasons for students visiting the FRO. Although services are provided to both students and staff members, some respondents (10%) felt that the information they received about postgraduate services from their respective departments was sufficient to carry them through their postgraduate studies. 22% visited the FRO to get general information about postgraduate studies, while 12% indicated that they get information about the official PG1 to PG13 forms. 9% indicated that they visit to enquire about research workshops to be conducted for postgraduates and to get information about proposal routing. The remainder is shared amongst the other options. It is important that the researcher highlights that very few students (4%) visit their FROs to enquire about research services to postgraduates. This shows that (although it is a “two way stream” and the FRO also needs to communicate

their services to students) some of M and DTech students are not yet enquiring about research services provided to them. This might result in students not knowing what is required and expected from them by the university, nor what support structures are put in place to enhance their studies.

Section B below was designed in line with the Servqual dimension as discussed in Chapter Two. This section provides a clear understanding concerning how far the research services provided by FROs met the expectations of M and DTech students.

#### **4.6.2 Section B: Expectations and perceptions (Servqual dimensions analysis)**

##### **4.6.2.1 Reliability**

Cronbach's alpha measures how well a set of items (or variables) measures a single unidimensional latent construct. When data have a multidimensional structure, Cronbach's alpha will usually be low. Technically speaking, Cronbach's alpha is not a statistical test - it is a coefficient of reliability (or consistency). Cronbach's alpha can be written as a function of the number of test items and the average inter-correlation among the items. Below, for conceptual purposes, we show the formula for the standardized Cronbach's alpha:

$$\alpha = \frac{N \cdot \bar{c}}{v + (N - 1) \cdot \bar{c}}$$

Here N is equal to the number of items, c-bar is the average inter-item covariance among the items and v-bar equals the average variance. One can see from this formula that if you increase the number of items, you increase Cronbach's alpha. Additionally, if the average inter-item correlation is low, alpha will be low. As the average inter-item correlation increases, Cronbach's alpha increases as well.

This makes sense intuitively - if the inter-item correlations are high, then there is evidence that the items are measuring the same underlying construct. This is really what is meant when someone says they have "high" or "good"

reliability. They are referring to how well their items measure a single unidimensional latent construct; which in this case are the four dimension (Reliability, Responsiveness, Assurance and Empathy) which were used to test reliability using Cronbach's alpha.

Reliability is computed by taking several measurements of the same subjects. A reliability coefficient of 0.70 or higher is considered as "acceptable". The results are presented below.

Dimension	Number of Items	Expectations	Perceptions
Reliability	4	.930	.851
Responsiveness	19	.959	.939
Assurance	6	.969	.936
Empathy	6	.950	.824
<b>Overall</b>	<b>35</b>	<b>.978</b>	<b>.972</b>

Table 4.5: Reliability scores

The overall reliability scores for each section are high (0.978 for Expectations and 0.972 for Perceptions). This indicates a high degree of acceptable, consistent scoring for the different categories for this research. All of the categories have (high), acceptable reliability values that exceed the minimum required value of 0.700.

#### 4.4.6.2 Factor Analysis

Factor analysis is used to study the patterns of relationship among many dependent variables, with the goal of discovering something about the nature of the independent variables that affect them, even though those independent variables were not measured directly. In this research, the 5 dimensions are the independent variables and the statements that constitute them are the dependent variables. The inferred independent variables are called *factors*.

#### 4.4.6.3 Why is factor analysis important?

Factor analysis is a statistical technique whose main goal is data reduction. A typical use of factor analysis is in survey research, where a researcher wishes to represent a number of questions with a small number of hypothetical factors.

For example, as part of a national survey on political opinions, participants may answer three separate questions regarding environmental policy, reflecting issues at the local, state and national level. Each question, by itself, would be an inadequate measure of attitude towards environmental policy, but *together* they may provide a better measure of the attitude. Factor analysis can be used to establish whether the three measures do, in fact, measure the same thing. If so, they can then be combined to create a new variable, a factor score variable that contains a score for each respondent on the factor. Factor techniques are applicable to a variety of situations. A researcher may want to know if the skills required to be a decathlete are as varied as the ten events, or if a small number of core skills are needed to be successful in a decathlon. You need not believe that factors actually exist in order to perform a factor analysis, but in practice the factors are usually interpreted, given names, and spoken of as real things.

The matrix table is preceded by a table that reflects the results of KMO and Bartlett's Test. The requirement is that Kaiser-Meyer-Olkin Measure of Sampling Adequacy should be greater than 0.50 and Bartlett's Test of Sphericity less than 0.05. In all instances, the conditions are satisfied which allows for the factor analysis procedure. The graphs are attached as *appendix L*.

#### **4.6.3 Section Analysis**

The graphs below indicate the mean scores for each statement, as well as the gap scores (which are the differences between the Mean Expectation and Mean Perception) for each component. Tables of mean scores are also presented by dimension. The values were reverse coded (ie. 5 became 1 and 1 became 5) so as to show the magnitudes of the negative gaps. The actual scoring patterns in terms of the frequencies can be found in the *appendix*.

*Figures 4.12 to 4.15* below indicate the mean scores for each statement, as well as the gap scores (which is the difference between the expectations and perceptions) for each component. Service quality for each dimension is captured by a difference score G (representing perceived quality for that item), where:  $G (\text{gap}) = P (\text{perception}) - E (\text{expectation})$  and where P and E are the

average ratings of a dimension's corresponding perception and expectation statements respectively.

The statements in each figure are indicated on the horizontal axis (e.g. 1 refers to the 1<sup>st</sup> statement under that particular dimension). The mean scores are indicated on the vertical axis: expectation (E: maroon bar), perception (P: green bar). The gap scores between the E and P (G: purple bar) are discussed under each dimension.

#### 4.6.3.1 Reliability: the ability of the Faculty Research Office to perform the promised services dependably and accurately based on four statements

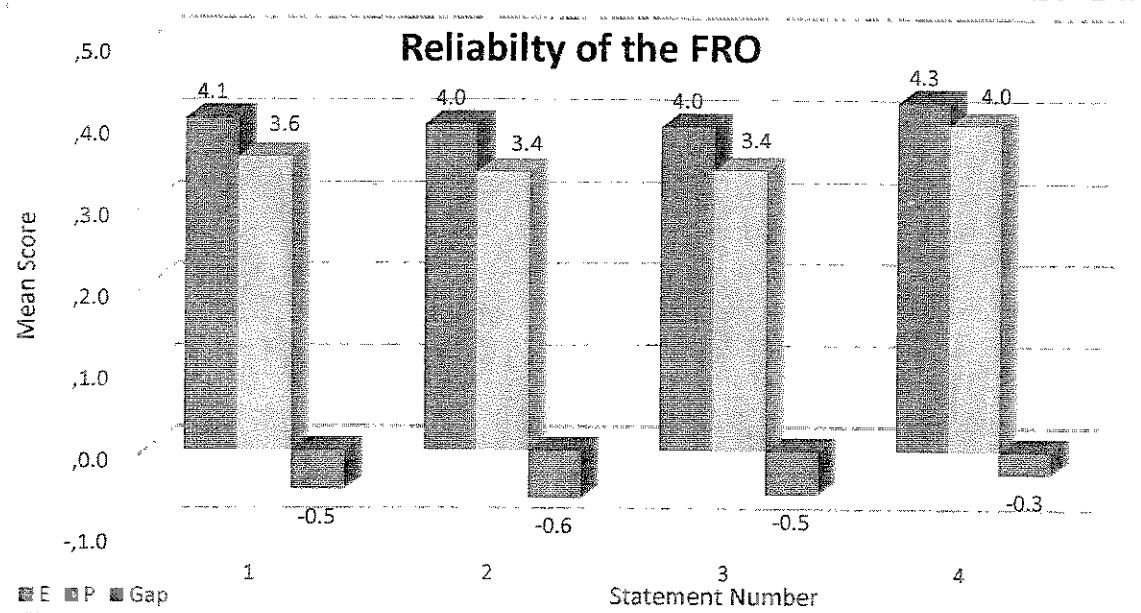


Figure 4.13: Reliability of the FRO

The overall gap score of -0.5 is similar to the individual gaps for each statement. The average expectation and perception scores are similar as well. The expectation scores are high ( $\geq 4.0$ ) and correspond to (strong) levels of agreement with each of the statements. The perception scores average between neutral and the level of agreement (3.4 to 4.0). This consistent level of scoring gives an overall expectation score of 4.1 whilst the perception value is 3.6. These scores indicated that the expectation was higher than perception of service delivery within these areas. Clients normally expect services they receive to be carried out reliably, accurately and effectively within a good

turnaround time (Reddy, 2014). The significance of the difference is tested below.

There is an approximate difference of 7% between the agreement scores for the expectation values between the statements that constitute this dimension. This gap increases to 20% for the perception statements. This implies that the respondents mostly had similar views for all of the statements in terms of expectations, but that these views differed in terms of perceptions. This dimension shows that the ability for the FROs to perform the promised services dependably and accurately needed improvement. The next dimension focuses on responsiveness of the FROs

#### 4.6.3.2 Responsiveness of the FROs

This section investigates the perceived willingness of the Faculty Research Offices to help students and provide prompt service, based on 19 statements.

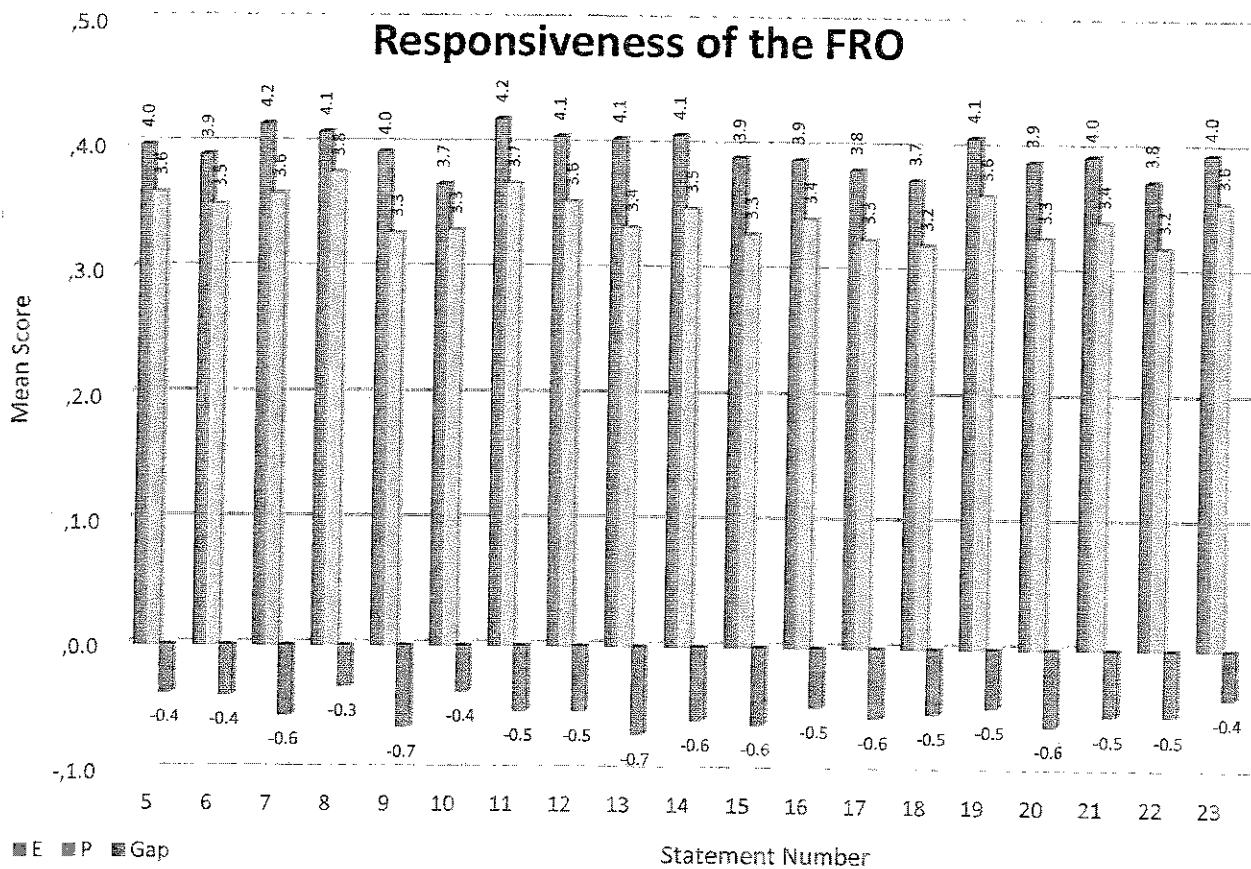


Figure 4.13: Responsiveness dimension score

The average Gap score is -0.5, with the average Expectation score being 4.0 and the Perception score is 3.5. Some gaps are small ( $\leq 0.4$ ) whilst some are large. The lowest gap score was -0.3 based on the statement regarding whether the FRO provided accurate information in terms of postgraduate registration processes (statement 8). The respondents were slightly less satisfied with the information given to them by the FRO pertaining to M and DTech registration processes. The response whether the FRO deals with M and DTech registration (statement 9) and whether staff always keep students updated about the services they provide (statement 13) provided the highest gap scores of -0.7. The respondents mostly agreed that all postgraduate registration processes should be conducted by the FRO rather than the faculty office to minimize unnecessary delays. Students expect to be informed of the research services (postgraduate research processes and procedures) which are provided by FROs, but the resulting gap score indicates that this did not occur sufficiently. According to Mdyogolo (2012) the university's ability to provide research services plays a significant role in the success or attrition of postgraduate students; hence these entwined gaps need to be addressed to avoid unnecessary dropouts. The literature indicates that there are many different factors that contribute to postgraduate students dropping out. This varies from funding difficulties, to social class issues, to organisational and academic aspects, to problematic relationships between a student and a supervisor (Albertyn, Kapp and Bitzer, 2008). The researcher believes that if research services are not communicated and provided adequately to postgraduate students that may also be a contributory factor to postgraduate dropout.

With regards to whether the FROs provide research capacity development and support to postgraduate students (statement 7) there was a gap score of -0.6. Although the university runs a number of general research workshops facilitated by experts to support postgraduate studies; postgraduate students felt that they were not getting sufficient research capacity development and support from their respective FROs to improve their research capabilities within their respective fields of study. The researcher argues that in order to minimise this gap, the FROs must establish the exact needs of the staff and M and

DTech students within their faculties so to organise and provide the required research assistance.

In terms of the faculty having its own (decentralised) FRO, this also resulted in a gap score of 0-6. While this may appear to indicate some dissatisfaction with faculty based research offices, it can also be attributed to some students not using the FRO as they sought assistance from their departments. Also most of the respondents had been registered between 7-13 months making them not the ideal people to ask about this as they were not registered when the university had only one Research Centre/Postgraduate Centre which catered for all the faculties within the university. One of the respondents stated that she was relatively new to the university and that it was premature for her to comment on whether central research office was better than FROs or *vice versa*. This is further suggested by conversations the researcher has had with academics who were once students at the university and are now employed there. They acknowledge the persistence improvement that the university has made and that decentralising Research Offices was one of those improvements in ensuring the university becomes research orientated. However while seeing the benefits of the establishment of FROs they also agreed that there was still more work to be done in ensuring that postgraduate studies are adequately sustained.

The next section looks at the assurance dimension.

#### 4.6.3.3 Assurance of the FRO

This section looked at the knowledge and courtesy of Faculty Research Office staff members and their ability to convey trust and confidence based on nine statements.

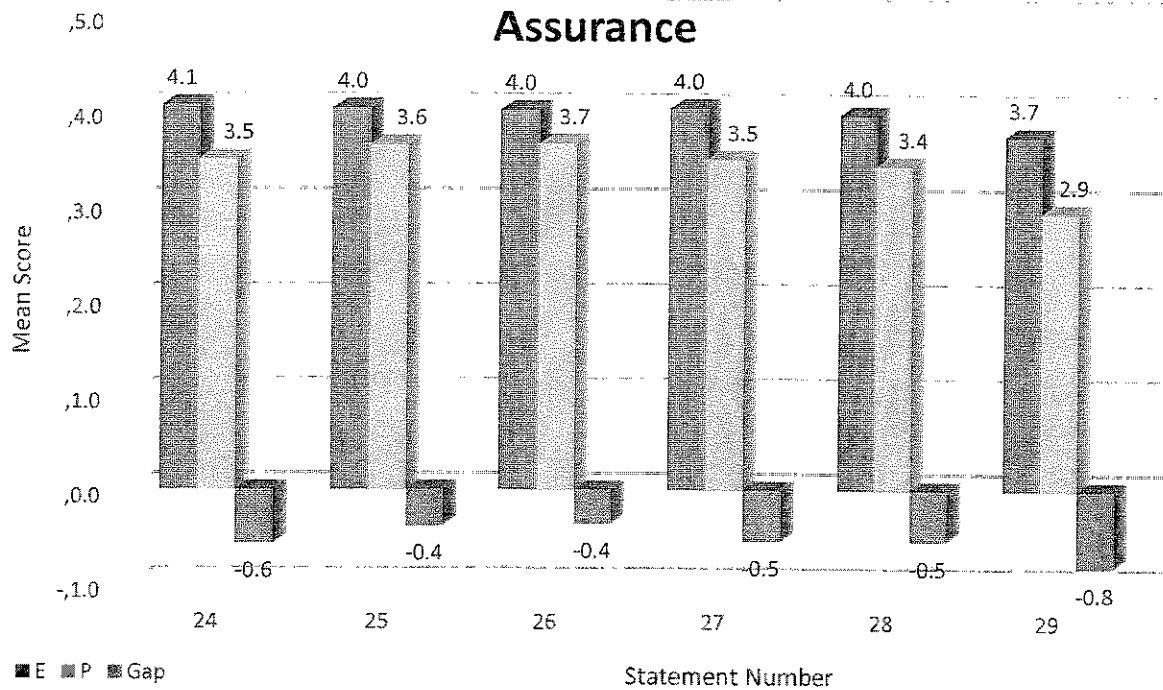


Figure 4.15: Assurance dimension score

The overall gap score of -0.6 is similar to the individual gaps for each statement. The average expectation is 4.0 while the average perception is 3.4. The expectation scores are high ( $\geq 4.0$ ) and correspond to (strong) levels of agreement with each of the statements. This indicates that respondents believe that the assurance dimension is somewhat lacking. The significance of this difference is tested below.

The lowest gap score was -0.4 based on the statements whether FRO members had good communication skills (in other words, that they provide clear, helpful, complete and easy-to-understand answers when they attend to students' requests) (St 25) and whether the FRO staff were eager to assist students (St 26). Respondents were not entirely content with the way the FROs communicated, meaning that the information communicated to them was somewhat lacking in quality and not always easy to understand. Noe (2010) states that, in building trust and good collaborative working relationships, it is essential to have good communication skills and therefore, in this case, the ability to convey clear and courteous information about services to students. Further, respondents perceived that the FRO staff were not giving them the

desired assistance, which might also be a contributory factor as to why some student are not using the FRO. Statement 27 and 28 had a gap score of -0.5 indicating that the respondents' expectation that their queries would be attended to promptly and handled in a manner which would instil confidence was not fully met. Some respondents raised concerns about lack of transparency in handling research processes.

The largest gap score of -0.8 referred to statement 29 where M and DTech students perceived that the FRO was falling short in terms of personnel, and that the FRO structure was not conducive to carrying out the duties and research services which it should be providing.

It must be noted that in order to move the university to the next level in terms of postgraduate enrolment, qualification upgrade, and academic publications, the university not only needs to acquire the services of well-established researchers and professors to improve publication rates and to provide good supervision, but also to look at increasing the number of research-driven administrators who strive for service delivery excellence to cope with the ever increasing number of enrolled postgraduate students. It should also be highlighted that in order to achieve the university's objectives in regard to increase postgraduate enrolment, improved pass rates and scholarly publications the university needs to focus on FRO processes and procedures for administering research services and try to find a uniform approach that will be adopted by the whole university so as to minimise the existing gaps.

The next section looks at the empathy dimension.

#### 4.6.3.4 Empathy

This section looks at the level of caring individualized attention the Faculty Research Office provides for its staff and student 'customers'.

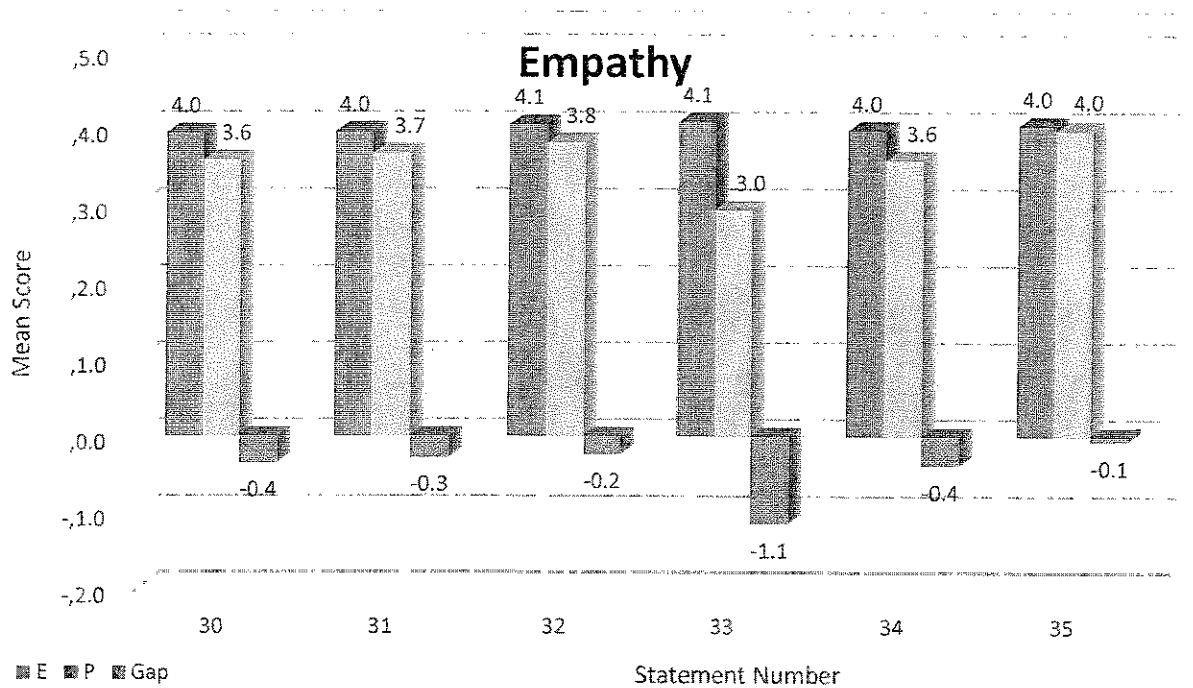


Figure 4.15: Empathy dimension score

The average Gap score is -0.2. The average Expectation is 4.0 while the average Perception is 3.6. In this dimension students perceived that the research services were offered in a reasonably caring manner. The smallest gap score of -0.1 pertained to statement 35 in which the students perceived the FRO staff to have a neat and professional appearance. In terms of the FRO having convenient operating hours (Statement 32) the students perceived that the FRO had convenient operation hours and that DUT conforms to the working hours set by the South African government and labour law.

Perceptions of research laboratory facilities satisfaction was lower. Due to the ever increasing intake of postgraduate students, it is important that the university creates more postgraduate labs. Statement 34 which concerns students' expectation that their faculties would have postgraduate research labs with advanced equipment (computer, telephone, printers, etc) received a gap score of -0.4. They indicated that the attainment of their expectations in this regard would enable them to focus more on their studies and increase their level of commitment.

The respondents perceived the FRO to be difficult to find and locate. This dimension had the largest gap of -1.1. Realistically, this gap needs to be taken

into consideration seriously as one of the factors that influence students to seek assistance from their departments and supervisors in preference to the FRO. The researcher strongly believes that if FROs were to be situated in more identifiable offices, student might find it easy to associate with their FROs which in turn could help build a perception of reliability and trust amongst students. Currently FROs are situated in offices which are small and not conducive to consultation.

The overall findings therefore show that the respondents' perceptions over the four service quality dimension (Reliability, responsiveness, assurance and empathy) were slightly negative, as each of the four dimension had a negative quality gap. The most serious quality problem related to responsiveness and assurance. This indicates that, for example, the FROs were not seen to be assisting students adequately; that their ability to offer research workshops, willingness to assist students, ability to attend to queries promptly, to provide personnel with expertise in administration with the ability to look after the best interests of the students adequately along with their communication of the research services they offer were all to varying degrees below expectations.

Students were clear that the FRO needed to be prominent in postgraduate activities and also be able to convey clear and precise understanding of research processes and services to the students.

The following section focuses on the interviews conducted with the Faculty Research Co-ordinators (3); Faculty Research Officers and Assistants (3).

#### **4.7 INTERVIEWS**

Having gathered information from the service recipients (academics and M and DTech students) it was also of importance that the study gathered data from the FRO staff members. The data was collected using structured interviews which were structured to answer objectives 3 and 4: what services are offered by each of the faculty research offices at the university; and the structure of each faculty's research office. The Research Co-ordinators' (RCs) interview schedule consisted of 39 questions while the one for FRO consisted of 41 questions. The questions asked to Research Officers (RO) were similar and

therefore the finding below presents an overview of their responses. These interviews were conducted at the interviewees' preferred location (in many cases in their offices). This created a comfortable and pleasant atmosphere for the participants as they were familiar with the surroundings and felt at ease when being interviewed.

#### 4.7.1 Objective 3: what services are offered by each of the faculty research offices?

This section will discuss the findings with regards to the above objective based on the following questions: 4,6,5,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22, 23,332 and 33. The purpose of these questions was to ascertain what research services were offered by each FRO and whether the FROs provided services to develop and sustain them.

Respondents	Qualification	Years working at the Faculty Research Office
Research Co-ordinator 1	PhD	4 years
Research Co-ordinator 2	PhD	4 years
Research Co-ordinator 3	PhD	6 months
Faculty Research Officer 1	Bachelor of Technology	4 years
Faculty Research Officer 2	Bachelor of Technology	4years
Faculty Research Officer 3	Honours Degree	2 years

Table 4.6: Faculty Research Office staff members

In terms of their qualifications, the Research Co-ordinators (RC) who were interviewed held PhDs while the other (not interviewed) also has a doctoral qualification. The two ROs held a Bachelor of Technology degree and the other had an honours degree. Two of the RC and ROs had been working in the FRO for more than four years while the remaining RC has only been at FRO for six months and another RO has worked for two years in the FRO. On interviewing the respondents, they indicated that the RCs and ROs worked closely together and that the operations of research were handled by them almost interchangeably, although the ROs were more involved in administration and providing research services and assistance, while the RC dealt with,

amongst other things, research and academic matters pertaining to the faculty including supervision, examination, chairing of meetings, membership of different committees within the institution and co-ordination of research. In terms of the Faculty Research Office being conveniently located, (66.7%) of the FRO staff stated that their offices were conveniently located. 33.3% stated that better signage and direction boards were required to assist in finding/locating their respective FROs. This to some extent contradicted the response given by academic staff (59%) who indicated that it was difficult to locate the FRO. Upon informally interviewing the academics they indicated that there were no signage or directions pointing to the Faculty Research Offices which made it difficult for staff and students to locate it.

When the respondents were asked about the services the FRO provides, they stated that the FRO provided extensive research services both to M and DTech student and to academics. These services range from assisting postgraduate students with information pertaining to registration; explaining postgraduate forms and M and DTech research processes; liaison between the Faculty Research Committee (FRC) and postgraduate students; liaison with the Higher Degrees Committee; ethical application processes; examination processes; and graduation process. Two of the RCs indicated that although the FRO handles research activities in their respective faculties, there were also Departmental Research Committees (DRC) which reviewed and approved research proposals prior to their being approved at FRC level. It would seem therefore that while the institution was trying to improve research outputs, the research support differed from faculty to faculty which indicates that there is no uniformity in the way the research services were offered by FROs. This perhaps is the result of varying levels of capacity within departments and therefore if there is capacity, departments tend to formulate DRCs to supervise research activities within that particular department.

In terms of providing academic skills and proposal writing workshops, the respondents indicated that there were research workshops to assist students with these skills. Wadesango, Maphosa and Moyo (2014:54) believe that these workshops provide an opportunity for students to improve the skills that will be

required throughout their studies and for postgraduates to refresh their skills if returning to study after a break from academia. One of the respondents added that these workshops were conducted by supervisors in the form of groups (made up of 10-15 students) in that particular department. The others stated that workshops were organised by the Faculty Research Office and facilitated by internal and external research specialists. They further stated that the institution had a number of research workshops for postgraduate capacity development.

The majority of respondents indicated that there were structures/ programs in place to enhance research including capacity development, funding information, scholarships, incentives from publications etc. In addition to these programs and structures for enhancing research, it was noted that the university had other offices and individuals who assist students in terms of academic writing, statistics and editing. According to the interviewees they offered research support to students and academics who were enrolled in postgraduate studies and also to those who were not registered for postgraduate studies but participated in research related activities. This response was not however consistent with the responses from students who indicated that their FROs lacked reliability, responsiveness, assurance, and empathy. Also academic staff corroborated the students' view to some extent as they indicated that they were often unaware of what research services were offered by their respective FROs both to staff who were not involved in research and to staff who were registered for postgraduate studies. One third (33%) of academics indicated that they were assisted by their departments (rather than by their FROs).

This indicates the need for FROs to educate staff and M and DTech students more effectively about the research services that *are* offered and what they can actually provide as research administrators. This is crucial according to Nadiri, Kandampully and Hussain (2009) who argue that higher education providers need to understand students' expectations and perceptions about what constitutes a quality service if they are to attract students and cater for their needs. This will go a long way to ensuring that research processes are

followed and adhered to which in turn will assist in increasing students' and academics' graduation rates and research outputs.

The majority of FRO staff (66.7%) indicated that annual progress reports are requested from students and that those reports reach the FRO *via* the supervisors, while the other FROs held research progress presentations to determine whether students were progressing satisfactorily or whether they were finding difficulties. Where students said that they had difficulties or were struggling with their research, the Faculty Research Office provided assistance.

Therefore overall while the FROs were minimally meeting the academics' and M and DTech students' expectations, they agreed that there was room for improvement in view of ever changing student population demands.

#### **4.7.2 Objective 4: to determine structures of each faculty's research office**

The above objective was met through the following questions: 23, 24, 25,28,29 and 32.

The respondents were asked whether having a decentralised research office benefited students and staff members in terms of research. Most of them indicated that having research offices within faculties has not only benefited academic staff and students but it has also benefited the faculty as a whole. Bringing the research office into faculties allowed research services to be closer to staff and students and this on its own allowed staff and students to make requests and be assisted much more quickly. At the same time, processes were expedited.

In response to whether the existing FRO structures were able to carry out the functions and activities ostensibly offered by the FROs views differed. 66.7% of respondents stated that they felt the structures were not meeting the ever increasing number of postgraduate students and that their offices were falling short as regards personnel. Faculty Research Offices were normally run by two staff members (1 permanent RC and 1 temporal RO). According to these employees, this really affected the functioning of the office as there was too much work to be carried out by two people, taking into account that the

research office serves both staff and postgraduate needs within the faculty. The other 33.3% stated that they were satisfied with their structures and that they were coping. While the answers were different, one has to be aware that some faculties have a far larger number of staff members per department; more staff who are research active, more postgraduate programmes and a greater postgraduate student enrolled. The researcher therefore believes that it would be wise to consider these aspects when putting faculty research structures in place.

In terms of the qualifications of administrative personnel deployed in research offices, the RCs unanimously agreed that administrative personnel should have at least a Bachelor's degree or Honours Degree and that they should be equipped with a range of necessary administrative skills, (for instance, telephone etiquette, faxing, emailing, minute taking, filing, proper professional liaison with internal and external people). 33.3% admitted that the skills of their administrative staff were below standard in various ways. This, they felt, could be attributed to a lack of proper handover procedures at the time of their appointment and to the fact that no proper training was provided for the current employee after taking over. One of the things that the respondents also highlighted was that most of the administrative personnel were not permanent and therefore when they were offered permanent employment elsewhere, a 'cycle' of replacing and rebuilding re-occurred. This must result in a lack of continuity and consistency in handling research processes.

When RCs were asked about their preferred personnel structures, most of them said that they would like to have one Faculty Research Officer and two Research assistants. This according to the respondents would enable the office to function more effectively as the work will not stop if one of them is absent. Presently if a member of staff is absent, work becomes a burden to the only person present and eventually results in the research office being unproductive. Hence, an appropriate staff complement should be employed to take charge of specific portfolios (Zheng, 2012).

#### **4.8 SUMMARY**

The findings from academic staff, M and DTech students indicated that FROs were not yet meeting the desired or expected research service standards. The five SERVQUAL dimensions of reliability, responsiveness, empathy and assurance each indicated a quality gap, suggesting that the FROs urgently need to attend to these gaps. One of the major concerns was that of inadequate communication. Academic staff, M and DTech students felt that the research office was failing to communicate its services as a service provider, and as a result staff and students often sought assistance from their respective departments and supervisors rather than from the FRO. The findings from the interviews however were that the research office staff were working hard to ensure that the research services they provide served the needs of staff and students.

## CHAPTER FIVE

### CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 INTRODUCTION

Chapter four presented results and discussed the findings obtained from the respondents. This chapter will therefore recommend what should be done as a result of the findings described in the previous chapter. The chapter begins by outlining the achievement of the objectives of the study; recommendations are made; the limitations of the research are presented; and the chapter concludes by suggesting potential future directions for research.

#### 5.1 ACHIEVEMENT OF THE OBJECTIVES

As discussed in Chapter 2 above, Singh and Khurana (2011:13) explain the Service Quality (Servqual) Model as derived from an analysis of the magnitude and direction of five gaps in perceived service quality, while Shahin (2007:2) explains the possible causes of each of these gaps. This formula is applied below to the findings of the data in order to make recommendations towards minimising the gaps identified in the research findings. It should be noted that the literature on Servqual dimensions adapted for this study explains that service quality is intertwined and if one dimension is lacking then the other remaining dimensions will also be affected. Thus no neat division between the quality dimensions identified can be drawn.

##### *Gap 1: Understanding*

*'The difference between customer expectations and management perceptions of customer expectations' (Singh and Khurana. (2011:13)) 'is a result of lack of a marketing research orientation, inadequate upward communication and too many layers of management' (Shahin (2007:2)).*

The research office therefore needs to communicate its services by holding orientations, research sessions, and online forums. They should not only conduct these workshops to address services provided but also to establish and understand what research services and support staff and students regard as crucial in order for them to be productive in research activities.

### *Gap 2: Service standards*

*'The difference between services quality specifications and management perceptions of consumer expectations' (Singh and Khurana. (2011:13)) 'occurs as a result of inadequate commitment to service quality, a perception of unfeasibility, inadequate task standardisation and an absence of goal setting' (Shahin (2007:2)).*

FROs therefore need to distinguish what their obligations and purposes are within faculties and outline their responsibility as a service provider. Subsequent to that better expanded structures with more skilled personnel to handle different portfolios will aid in minimising this gap. Ascertaining information from academics, students and supervisors on what services are preferred will assist in keeping research services offered in line with what service receivers expect from the research office, and that may also contribute in reducing the difference between the services quality specifications and management perceptions of consumer expectations. This gap was identified in the interviews with FRO personnel whose perceptions of the services they delivered were more positive than were their clients' perceptions.

### *Gap 3: Service performance*

*'The difference between service quality specifications and the service actually delivered' (Singh and Khurana' (2011:13)) 'occurs as a result of role ambiguity and conflict, poor employee-job fit and poor technology-job fit, inappropriate supervisory control systems, lack of perceived control and lack of teamwork (Shahin (2007:2)).*

Action speaks louder than words; communicating research services will not on its own improve research performance but different measures need to be taken to ensure that these communicated services are put into practice. This will be achieved once the FRO clearly understands its role as a service provider. Once that has been established the RCs should then supervise and mentor the administrative personnel to prepare them with administrative skills to better administer research services. The research office personnel will then have to work closely and cohesively as a team in order to achieve better service performance.

#### *Gap 4: Communication*

*'The difference between service delivery and what is communicated about service to customers' (Singh and Khurana. (2011:13)) 'occurs as a result of inadequate horizontal communications and propensity to over-promise' (Shahin (2007:2))*

Adequately communicating research services via emails, telephone, forums, seminars, and meetings will play a significant role in ensuring that academics and students are well informed of the support and development that is offered by FROs. However the communicated research services should not be over promised as this will create a negative image of the research office if it should fail to deliver.

#### *Gap 5: Service quality*

*'The difference between customer expectation of service quality and customer perception of the organization's performance' (Singh and Khurana. (2011:13)) 'occurs as a result of the influences exerted from the customer side and the shortfalls (gaps) on the personal needs, word of mouth recommendation and past service experiences' (Shahin (2007:2)).*

This gap can be minimised by having well-developed research structures with knowledgeable and skilled staff providing quality research services. This in turn will lead to good word-of-mouth and past experience recommendations from students and other stakeholders.

The following section provides a reflection on the stated objectives of the study in order to assess how far these have been met and to make recommendations related to the objectives.

#### **5.1.1 Objective 1: To determine how academic staff and students perceive research services provided by their faculty office.**

Findings reveal that academic staff and students were not entirely satisfied with the research services provided by FROs. The predominant weakness experienced related to the inadequate communication of research services

provided to M and D Tech students and academics by FROs. Further, respondents were in agreement that their respective FROs were not conducting postgraduate orientations. Respondents felt that FROs were not being vocal enough about the research services they offered. As a result some sought assistance from their supervisors or from the departments in which they were registered. Most of the respondents agreed that postgraduate forms were sent to them upon request but when asked whether progress reports on students were made available by FROs, the majority of staff members were unaware of this. Alternatively some students indicated that progress reports were requested by the departments while other students indicated that progress presentations were conducted by DRCs. Most of the respondents indicated that post-conference reports were sent to departments and not to FROs. In view of these discrepancies in perception FROs need to have a uniform procedure for the management of research services such as these and this needs to be clearly communicated.

To assist with this FRO structures should be expanded rather than having sub-research offices (DRCs) within departments as this can create problems for staff and students in the sense that they might not be getting the latest updated information in the form of postgraduate forms, scholarships/funding notices, or notices about upcoming capacity development workshops, examination procedures or graduation processes.

Supervisors need to encourage their students to visit the FROs more regularly for information pertaining to their postgraduate studies. Apart from this, another way of ensuring that services are known to academics and students is by having postgraduate online forums where postgraduate forms, postgraduate services and procedures can be uploaded. These online forums would also enable academics and students to develop chat-rooms, form discussion groups and share knowledge.

In terms of progress reports, these should be requested by FROs at least once a term. These reports should come signed off by someone neutral who could be the HoD, but not the supervisor. This would enable students to provide

detailed progress made, and difficulties and challenges faced, without fearing to jeopardise the student-supervisor relationship. These progress reports should serve FROs as building blocks in trying to improve research services and rectify challenges faced by students which in turn will contribute to improved student graduation rates.

Conference reports should also be submitted to the FROs in a document format upon the participant's return. This will assist in documenting faculty involvement in scholarly activities such as conference attendance, leading to the provision of more assistance in supporting research and publications – for instance a list of accredited journals that can be obtained from the FROs to assist academics, and M and DTech students when publishing their work.

Academics agreed that while research was increasingly impacting on their tight academic schedules, now that they were expected to upgrade their qualifications and publish scholarly articles, they experienced FRO support for research processes as marginal. Further, most of the academic staff indicated that they were not aware whether there was a comprehensive postgraduate guide to assist them with the full range of research processes. In terms of funding of postgraduate studies, publications, and conferences, academics were aware that funding was provided by the institution but they stated that the process was long and time consuming. This process however was handled by a different support department outside of the faculty – therefore it would be wise to allocate personnel with experience in postgraduate funding or to educate and sanction FROs to administrate and process funding applications within the faculty in order to expedite matters. With regards to postgraduate guides, these should be given to students during the registration orientation period and also be easily accessible online. These postgraduate guides should also be sent to supervisors as some of them might be unsure of these processes – especially external supervisors.

The findings from M and DTech students revealed that, while not all service dimensions were negative, there existed a negative service perception gap to a

greater or lesser extent within each of the four SERVQUAL dimensions. This means that the FROs to some degree lacked:

- ❖ the ability to perform the promised research services dependably and accurately,
- ❖ a willingness to help students and provide prompt services;
- ❖ the knowledge and courtesy required to convey trust and confidence to academics, M and DTech students, and
- ❖ the ability to give caring individualized attention to academics, M and DTech students.

#### *5.1.1.1 The ability to perform the promised research services dependably and accurately.*

As a service provider, it is crucial that the services said to be offered to students and academics be provided and be of good quality. These services should be offered with understanding and empathy to avoid confusing or undermining students. In other words the research office needs to be reliable, knowledgeable, considerate and consistent in handling research matters and services. This will motivate academics and students to associate with, and rely on, the services of FROs thereby increasing knowledge amongst stakeholders about research processes. This can be achieved by constantly educating FRO staff members, and acquiring more administrative personnel to assist with the administrative workload. Employing permanent administrative personnel will provide consistency in handling of services as constant staff changes tend to reduce the level at which services are provided. Innovated research structures with better trained staff will be in a position to channel research activities more effectively.

#### *5.1.1.2 The willingness to help students and provide prompt services*

The research office staff need to be precise in their research dealings and be prepared to go out of their way to ensure that students and academics are well informed about research services. Providing prompt quality services enables students and staff to recognise the importance of familiarizing themselves with their FROs.

This can be achieved by running faculty postgraduate orientations twice a year (as postgraduate studies are registered throughout the year); specifically informing and educating students and academics about what an M and DTech study entails and what research services are offered to assist them on this journey to ensure that they graduate within the minimum required time. These orientations should also go further and inform students about the process of acquiring funding, scholarships and other forms of university support that will aid them in the successful completion of an M or DTech study. This is taking into account that only 6.4% of the academic staff were aware that external funding was sourced for researchers. The university also needs to have a clear and precise policy on postgraduate studies that will outline the consequences of not completing a study, taking into account that all postgraduate tuition fees are waived by the institution and students only pay a once-off registration fee of R150.00. In addition, this dimension plays a vital role in ensuring unnecessarily high dropout rates and an improvement here will contribute to better student throughput and better publication rates for academics.

Where there is an increase in student throughput and scholarly publications, it means that the institution receives an increased subsidy allocation from the government. Therefore, if the research office contributes greatly to the funding of the institution, then investing in research structures and services should be regarded as money well spent, and an important item on the university's agenda. This expenditure will however, in part at least, have to precede the resulting accumulation of the funds as these will only become available later.

#### 5.1.1.3 Knowledge and courtesy to convey trust and confidence to academics, and M and DTech students

The FROs need to be certain about the services they provide. Only by conveying knowledge with assurance can sufficient confidence be built to enable students and academics to rely on FROs. In order for FROs to gain this confidence a structured training programme to educate FRO staff needs to be designed and implemented by the institution. Due to constant changes in aspects of research services, proper communication from senior management to RCs and ROs should be made in order to keep the FROs up to date with the

latest information regarding, for instance, DHET or NRF requirements. Apart from internal training, it is also important that external experts be invited by FROs to the university at least once a year to share some of the good approaches practised by other universities so that this knowledge can be disseminated and shared in order to better inform the research services provided by the research office.

The research office also needs to build strong relationships with staff and current students to ensure good word-of-mouth marketing not only to its own students but to attract prospective students from elsewhere. Besides providing administrative assistance, FROs should consider organising functions such as annual faculty research days and sports days where staff and students can interact, work together and support each other – helping to bring about greater unity within the faculty.

#### 5.1.1.4 The ability to give caring individualized attention to academics, M and DTech students.

FROs need to associate with students and staff in order for them to feel welcome and at ease to address their individual queries with assurance of being assisted. Apparently 38% of respondents felt that they were isolated since they were situated in the Pietermaritzburg Riverside Campus which has no FRO. They were unaware of any research services provided by FROs. The researcher therefore suggests that a research office be established on the Riverside Campus to cater for those academics' and students' needs. This office should operate alongside the FROs in Durban and their obligations should be identical.

In addition, 59% of academics indicated that it was difficult to locate the FRO offices. This difficulty can be reduced or minimized by making FRO addresses/locations available on the DUT webpage (e.g webMap) since most people are using the internet. In addition sufficiently eye catching signages (in DUT format) should be placed within each of the campuses to give clear directions to each of the research offices.

### **5.1.2 Objective 2: To determine what services are required by staff and students.**

As some of the respondents were not seeking assistance from their FROs, these were unaware of what was offered and what was not offered by FROs. Respondents who were aware of the services provided by FROs agreed that they received assistance in terms of research activities, but these were not meeting their expectations. It was perceived that there was no uniformity or consistency in the FRO handling of research processes. In terms of administrative support services, staff and postgraduate students indicated that FROs were not providing sufficient administrative assistance in terms of their key day-to-day services such as completing forms, enrolment/registration, conference funding applications and appointing supervisors.

However respondents acknowledged that the institution and the FROs were providing some research capacity building, but at present they perceived this to be inadequate. They felt the need for more development and support in terms of FROs organising additional seminars/workshops on, for instance, research publishing and other specific training on request from staff members. They requested more guidance in doctoral studies, and that a greater number of invitations be sent to external experts to share their expertise with staff and students. They indicated that one day a week should be set aside as a research day to enable academics to focus only on research. Staff responses also indicated that no orientations facilitated by FROs were held to address research processes and procedures and to enlighten them in general about the research services they provide.

### **5.1.3 Objective 3: To determine what services are offered by faculty research offices.**

It was difficult to determine exactly what services were offered by FROs as each operated slightly differently and some were carrying out more research functions than others. This was because some faculties had greater capacity within their respective departments than others. In these, departments often formed Departmental Research Committees, as discussed above, to oversee research functioning. Where there were no DRCs, postgraduate issues were

supervised by FROs. The activities provided by the research office and sometimes by departments are listed below:

- ❖ providing prospective students with registration information,
- ❖ administration of proposal presentations and research proposals,
- ❖ sending of approved proposals/documents to different committees (IREC and HDC),
- ❖ administration of faculty funding per research proposal approved by FRC,
- ❖ facilitating progress reports,
- ❖ administering examination processes,
- ❖ keeping students and staff informed of research processes and policy,
- ❖ administering research output,
- ❖ administering conference applications,
- ❖ organising research capacity development workshops for academics, and M and DTech students
- ❖ allocating supervisors
- ❖ assisting visiting professors
- ❖ processing international exchange students

Taking into account that FROs were established specifically to provide research assistance, the researcher would recommend that DRCs should be disbanded and their functions rationalised within the improved FRO structures recommended here. This will avoid duplication of services and enhance the reliability of information provided to staff and students by FROs. Therefore it is recommended that all the postgraduate activities and functions mentioned above be undertaken by FROs from start (registration) to finish (graduation). However, departments should initiate the allocation of supervisors and nomination of examiners as they are subject experts.

Thus, overall, the research offices need to engage more with staff and students by taking over full responsibility for faculty research functions and by creating online postgraduate forums as indicated above where staff and students can share knowledge and challenge each other in regard to anything pertaining to research activities.

#### **5.1.4 Objective 4: To determine the structure of each faculty's research office.**

To enable academics and M and DTech students to achieve the objectives of the university, proper structures to facilitate and administer research activities more efficiently turned out to be pivotal. Del-Palacio, Sole and Berbegal (2011:49) agree that university internal services, principally infrastructure and staff, can contribute to significantly improving research performance. The respondents agreed that having decentralised FROs was beneficial in expediting research processes but they also agreed that at present the FROs did not have sufficient personnel to administer research services efficiently. Research Coordinators agreed stating that the FROs often lacked trained and committed staff. They recommended that at least a minimum of four staff members (that is, one RC, one RO and two research assistants) should be employed to handle different portfolios within each FRO because of the increase in postgraduate enrolment. One of the major concerns was the fact that the administrative personnel were employed on a contract basis and therefore there were constant changes which affected the consistency of services. Findings also revealed that training and mentoring administrative staff was currently inadequate to prepare them with the administrative skills in research services required.

The steps proposed below should be followed when a new research administrator is appointed:

- ❖ mentoring – experienced staff should familiarize the candidate with the research structure and services provided by it;
- ❖ they should also familiarize the candidate with a full understanding of faculty structures and committees and the role and purpose of the FRO within the faculty;
- ❖ training should be provided on an ongoing basis specifically focusing on research administrative processes, writing/minute taking skills, presentation skills and people management skills.

Further, these structures should appoint well qualified administrative personnel (especially candidates who hold postgraduate qualifications) as these have a clear understanding of being a postgraduate student and they are aware of how

influential the research services are in supporting postgraduate studies. This process of recruitment and training should be facilitated by Research Coordinators.

The limitations of the study are presented below.

## **5.2 LIMITATIONS**

There was very limited literature that focused specifically on faculty research structures and services in HE, and therefore the researcher had to rely on information posted by individual universities regarding their own research support structures. Getting M and DTech students to complete the online questionnaire was difficult because most of them were not on campus. As a result there were discrepancies in the numbers of postgraduates who responded per faculty. Also data gathered from FRO staff was not a full reflection as some of the FRO staff did not make themselves available for interviews, despite numerous approaches (*via* emails and telephone).

The data gathered for this study was limited to the selected university and therefore generalisations may not be made. Any significant results emerging from this study may not necessarily reflect the situation in other UoTs in SA but may however be used as guidelines to understand the significance of having efficient research structures and to understand and address HE research service quality and support.

## **5.3 SUGGESTIONS FOR FUTURE RESEARCH**

Ever-increasing postgraduate enrolment has resulted in postgraduate research support being in demand. An assessment on how UoTs' research structures can better inform/support postgraduate functioning needs to be further researched. Research into suitable and productive research structures for supporting postgraduate studies could yield interesting results on an ongoing basis.

Understanding the needs of research service providers and the challenges of providing services to academics, M and DTech students' needs should also be

researched further. Finally, a study of the effectiveness of having experienced supervisors to train and supervise students could perhaps be one of the factors researched as to its role in promoting better and greater research output.

#### **5.4 CONCLUDING REMARKS**

In general the findings of this study provided an in-depth perspective of how academics, and M and DTech students perceive research structures and services provided by faculties. As with the study conducted by del-Palacio *et. al* (2011) in Spain on “Which services support research activities at universities”, this current study agrees that UoTs need to provide more focussed education to service and administrative staff if they are to support research activities effectively.

The findings presented in the study will hopefully benefit the university management regarding the improvement of research structures and services allowing for the provision of quality research services within faculties and the institution as a whole. It is also envisaged that continuous evaluation of research structures and services will provide the ongoing understanding needed by staff; resulting to increased faculty engagement with FROs.

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**PERMISSION TO CONDUCT RESEARCH AT THE DUT**

Directorate for Research and Postgraduate Support  
Tromso Annex, Steve Biko Campus  
Durban University of Technology  
P.O. Box 1334,  
Durban

17 April 2013

Faculty of A&I Research Office  
Ritson Campus  
Durban University of Technology  
4000

Dear Prof Moyo

I am studying towards an MTech Degree in Commercial Administration. The title of my research is: Staff and student perceptions of research structures and services provided by the Faculty Research Offices at a University of Technology.

I hereby request you to grant me permission to conduct my research with academic staff and postgraduate students at the Durban University of Technology to enable me to gather data for my research. The participants for the study will include all registered M and DTech students, Faculty Research Co-ordinators and Faculty Research Assistants/Officers.

The information that they provide will be kept strictly confidential. Only the supervisor and the researcher will have access to the data. The participants will remain completely anonymous throughout the research process and in any reporting or write-ups related to my research.

## Appendix A: Permission to conduct research at the DUT

Thank you

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Mr. Musawenkosi Ngibe

Student No.: 20813980

Cell No: 078 635 0892

Email: [musangibe@gmail.com](mailto:musangibe@gmail.com)

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Prof. P Singh

Research supervisor

031 373 6767

**Appendix: B – Covering letter: Staff questionnaire**



**Faculty of Accounting and Informatics**

**Department of Information and Corporate Management**

Date: 26 July 2013

Dear Participant

I am studying towards an MTech Degree in Commercial Administration, in the faculty of Accounting and Informatics at the Durban University of Technology. The title of my research is: **Staff and student perceptions of research structures and services provided by the Faculty Research Offices at a University of Technology.**

Please complete the attached questionnaire to enable me to gather data for my research. This questionnaire is designed to gather **staff and student perceptions on decentralised research structures and services provided by the Faculty Research Offices at a University of Technology.** The information you provide will be kept strictly confidential. Only the supervisor and the researcher will have access to the completed questionnaires. Please be assured that you will remain completely anonymous throughout the research process and in any reporting or write-ups related to my research.

Follow up semi-structured interviews may be conducted where responses on the questionnaire are unclear, incomplete or where further or more detailed information is required.

Please read and complete the attached Consent Form.

Thank you very much.

---

Mr. Musa Ngibe

Email: [musangibe@gmail.com](mailto:musangibe@gmail.com)

Student number: 20813980

MTech: Commercial Administration

Faculty of Accounting and Informatics

---

Prof. P Singh

Research Supervisor

## Appendix C,D,I - Covering letter, Consent form and questionnaire

## Student research questionnaire

Dear Participant

I am studying towards an MTech Degree in Commercial Administration, in the faculty of Accounting and Informatics at the Durban University of Technology. The title of my research is: Staff and student perceptions of research structures and services provided by the Faculty Research Offices at a University of Technology.

Please complete the attached questionnaire to enable me to gather data for my research. This questionnaire is designed to gather staff and student perceptions on decentralised research structures and services provided by the Faculty Research Offices at a University of Technology. The information you provide will be kept strictly confidential. Only the supervisor and the researcher will have access to the completed questionnaires. Please be assured that you will remain completely anonymous throughout the research process and in any reporting or write-ups related to my research.

Please read and complete the attached Consent Form.

Thank you very much.

\* Required

## Student research questionnaire

INSTITUTIONAL RESEARCH ETHICS COMMITTEE (IREC)  
LETTER OF INFORMATION

M AND DTECH STUDENTS

Title of the Research Study:

Staff and student perceptions of research structures and services provided by the Faculty Research Offices at a University of Technology

Principal Investigator/s/researcher: Musawenkosi Ngibe, BTech: OMT  
Supervisor: Prof. P. Singh, PhD

Brief Introduction and Purpose of the Study:

Universities have become research intensive as their subsidies are determined by research output. Sound academic and administrative support at grass roots or faculty level is critical for the enhancement of research output. The aim of this study therefore is to investigate academic staff and postgraduate students' perceptions of decentralised research services and structures provided by the faculty research offices at a UoT in South Africa.

Outline of the Procedures:

Participants are urged to fully complete the questionnaire as this will enable the analysis to be efficient and accurate based on the responses. Please answer all questions honestly and to the best of your knowledge. Semi-structured interviews may be conducted where responses on the questionnaire are unclear, incomplete or where further or more detailed information is required. To answer the questionnaire will take about 10 minutes and interviews will only be scheduled where more detailed information is required.

Risks or Discomforts to the Participant:

There are no risks or discomfort to the participants.

Benefits:

The study will benefit the participants and the university with knowledge in terms of what the institution needs to do to enhance research. This researcher may also draw recommendations and conclusions based on what the participants perceive of decentralised research structures and services provided by the UoT. Benefit to the researcher will be research publications and completion of MTech Commercial Administration qualification.

Reason/s why the Participant May Be Withdrawn from the Study:

Participation is voluntary and the participant may withdraw from the study at any stage without having to provide a reason.

Remuneration:

No remuneration is to be received by the participants.

Costs of the Study:

There is no cost to the research participant.

Confidentiality:

The researcher assures the research participants of the following, to:

- maintain your confidentiality and security of all your questionnaire responses;
- protect your rights and welfare, i.e. to ensure that no harm comes to you as a result of your participation in this research; and
- to make available on request, the findings of this research.

Persons to Contact in the Event of Any Problems or Queries:

Please contact the researcher on: 078 635 0982/031-373 5599 or the supervisor: Prof P. Singh, PhD on 031 373 6767. Complaints can be reported to the DVC: TIP, Prof F.A. Otieno at [dvctip@dut.ac.za](mailto:dvctip@dut.ac.za)

## INSTITUTIONAL RESEARCH ETHICS COMMITTEE (IREC) CONSENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Mr Musawenkosi Ngibe, about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: REC 22/13,
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including any personal details will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

I, Musawenkosi Ngibe herewith confirm that the participant has been fully informed about the nature and conduct of the above study.

1. \*

*Check all that apply.*

I have read the consent form and hereby agree to participate in this study

2. \_\_\_\_\_

*Example: December 15, 2012*

## SECTION A: BIOGRAPHICAL DETAILS

**3. 1. Your age**

Mark only one oval.

- 20 years
- 21– 25 years
- 26 - 31 years
- 32 - 37 years
- 38 – 43 years
- 44 - 49 years
- More than 49 years, please specify
- Other: \_\_\_\_\_

**4. 2 Your home language**

Mark only one oval.

- Sesotho
- English
- Zulu
- Afrikaans
- Ndebele
- Setswana
- siSwati
- Tshivenda
- Xhosa
- French
- German
- Chinese
- Hindi
- Other: \_\_\_\_\_

**5. 3. Please indicate information regarding your current registration \***

Mark only one oval.

- Masters Degree: Full time registered
- Masters Degree: Part time registered
- Doctoral Degree: Full time registered
- Doctoral Degree: Part time registered
- In the process of registering

**6. 4. Faculty in which you are registered \****Mark only one oval.*

- Management Sciences
- Health Sciences
- Engineering and the Built Environment
- Arts and Design
- Applied Science
- Accounting and Informatics

**7. 5. How long have you been registered for this qualification***Mark only one oval.*

- 0-6 months
- 7-13 months
- 14-20 months
- 21-27 months
- 28-34 months
- 35-41 months
- Other: \_\_\_\_\_

**8. 6. Are you aware that your faculty has a Faculty Research Office?***Mark only one oval.*

- Yes
- No

**9. 7. Do you use the services provided by your Faculty Research Office?***Mark only one oval.*

- Yes
- No

**10. 7.1 If yes, for what purposes?**

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11. 7.2 If no, please explain why?

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12. If you answered 'yes' to question 7 above, please answer the following questions

8. How often do you use the services of your Faculty Research Office?

Mark only one oval.

- When I need information
- Each week
- Once a month
- Once a term
- Once every six months
- When I have research related problems
- Everyday
- Other: \_\_\_\_\_

13. 9. How often does your supervisor/s refer you to your Faculty Research Office?

Mark only one oval.

- Once a week
- When I need information
- Once a term
- Once every six months
- When I have research related problems
- Once a month

14. **10. Please indicate your reason/s for visiting your Faculty Research Office. You may choose more than one option. \***

Check all that apply.

- To get general information about postgraduate studies
- To get information about registration
- To get information about PG1 to PG13 forms
- To enquire about the services which the Faculty Research Office provides to postgraduates
- To get assistance when completing forms
- To enquire about workshops to be conducted for postgraduates
- To request for a supervisor or co-supervisor
- To request for a change of supervisor or co-supervisor
- To enquire about graduation
- To get information regarding conference funding
- To enquire about examination process
- To get information about proposal routing
- To get information about the postgraduate faculty funding
- Other: \_\_\_\_\_

## SECTION B: EXPECTATIONS AND PERCEPTIONS

Based on your experience as a service receiver, please think about the service that you currently experience and the kind of service which you would like to experience. For each of the following statements therefore, please indicate your level of agreement as they apply to your EXPECTATIONS and PERCEPTIONS of the service quality provided by the faculty research office.

Please place a cross (X) next to relevant number regarding your EXPECTATIONS and PERCEPTIONS for each statement that truly reflects your feelings where:

- 1 = completely agree  
 2 = agree  
 3 = neutral  
 4 = disagree  
 5 = completely disagree

If you have any further comments, you are most welcome to write them down

Please remember to answer all questions

Remember:

**\*\*Customer EXPECTATIONS** are described as the desires or wants of the consumer. In other words what kind of services do you expect to receive?

**\*\*Customer PERCEPTIONS** are the process of receiving, organizing and assigning meaning to information or stimuli detected by the customers' five senses and opinion that it gives meaning to the world that surrounds the customer. In other words what is your perception/opinion of the quality of the services you receive?

**Reliability: Ability to perform the promised service dependably and accurately**

15. **1. My Faculty Research Office provides services as promised**

*Mark only one oval per row.*

1 2 3 4 5

My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perceptions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. **2. My Faculty Research Office provides services right the first time**

*Mark only one oval per row.*

1 2 3 4 5

My expectations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. **3. The services provided by my Faculty Research Office satisfies my needs**

*Mark only one oval per row.*

1 2 3 4 5

My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. **4. Submitted forms/documents are kept confidential by my Faculty Research Office**

*Mark only one oval per row.*

1 2 3 4 5

My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Responsiveness: Willing to help students and provide prompt service**

19. **5. The information provided by my Faculty Research Office to students is always correct**

*Mark only one oval per row.*

1 2 3 4 5

My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. **6. When students encounter problems regarding research with other departments, my Faculty Research Office intervenes or assists**

*Mark only one oval per row.*

1 2 3 4 5

My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21. **7. My Faculty Research Office provides research capacity development and support to postgraduate students as requested**

*Mark only one oval per row.*

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. **8. The registration process information given by my Faculty Research Office is accurate**

*Mark only one oval per row.*

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. **9. Our Faculty Research Office deals with M and DTech registrations**

*Mark only one oval per row.*

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. **10. My Faculty Research Office deals with the appointment of supervisors and co-supervisors**

*Mark only one oval per row.*

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. **11. Proposal writing workshops are facilitated by my faculty to assist students with proposal write-ups**

*Mark only one oval per row.*

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. **12. My Faculty Research Office informs students of decision/s taken by Faculty Research Committee (FRC) pertaining to students proposal submissions**

*Mark only one oval per row.*

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. **13. My Faculty Research Office staff always keeps students updated of the services they provide**

Mark only one oval per row.

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. **14. Having our own Faculty Research Office speeds up processes**

Mark only one oval per row.

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

29. **15. Our Faculty Research Office assists in completing forms**

Mark only one oval per row.

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. **16. The routing of proposal after approval by FRC is explained by my Faculty Research Office**

Mark only one oval per row.

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

31. **17. Higher Degrees Committee decisions pertaining to student documents or applications are communicated to students by my Faculty Research Office**

Mark only one oval per row.

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32. **18. Progress reports are monitored by my Faculty Research Office to track student progress**

Mark only one oval per row.

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33. **19. My Faculty Research Office conducts workshops to enhance students' capability in terms of research**

Mark only one oval per row.

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

34. **20. My Faculty Research Office is reliable and efficient**

Mark only one oval per row.

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

35. **21. My Faculty Research Office always looks after the best interest of students**

Mark only one oval per row.

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

36. **22. The examination process is clearly explained to students**

Mark only one oval per row.

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

37. **23. My Faculty Research Office provides information that is needed by the students**

Mark only one oval per row.

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Assurance: knowledge and courtesy of staff members and their ability to convey trust and confidence**

38. **24. My Faculty Research Office staff members are very knowledgeable about services they provide**

Mark only one oval per row.

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

39. **25. My Faculty Research Office staff members have good communication skills (in other words, they provide clear, helpful, complete and easy to understand answers when they attend to students' requests)**

Mark only one oval per row.

1 2 3 4 5

My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

40. **26. My Faculty Research Office staff are eager to assist students**

Mark only one oval per row.

1 2 3 4 5

My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

41. **27. The manner in which queries are handled by my Faculty Research Office staff instills confidence in students**

Mark only one oval per row.

1 2 3 4 5

My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

42. **28. My Faculty Research Office staff members always attend to students promptly**

Mark only one oval per row.

1 2 3 4 5

My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

43. **29. Our Faculty Research Office has enough staff to carry out the duties and services they provide**

Mark only one oval per row.

1 2 3 4 5

My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Empathy: Caring individualized attention the faculty research office provides its customers

44. **30. My Faculty Research Office staff members always welcomes students**

Mark only one oval per row.

1 2 3 4 5

My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

45. **31. My Faculty Research Office provides personal attention to each student**  
*Mark only one oval per row.*

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

46. **32. My Faculty Research Office has operating hours convenient to students**  
*Mark only one oval per row.*

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

47. **33. It is easy to find my Faculty Research Office**  
*Mark only one oval per row.*

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

48. **34. My faculty postgraduate research lab has advanced equipment (computer, telephone, etc)**  
*Mark only one oval per row.*

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

49. **35. Members of staff in my Faculty Research Office have neat and professional appearance**  
*Mark only one oval per row.*

	1	2	3	4	5
My expectation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

36. My Faculty Research Office provides the following postgraduate forms. you may choose more than one answer.

50. *Check all that apply.*

- PG 4a to PG 13
- Application for funding
- Application for scholarship
- Application to attend a conference/seminar/symposium/workshop
- Application for Conference Funding
- Other: .....

51. **37. Please indicate any service/s that you think your Faculty Research Office should provide**

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52. **38. Please indicate any changes or improvements that you would like to see regarding your Faculty Research Office**

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53. **39. Please indicate any changes you would like to see regarding services provided by your Faculty Research Office**

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54. **40. Any comment (positive or negative) that you would like to make regarding your Faculty Research Office or the services they provide.**

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### Section C

\*\*This section is completely optional

Please be advised that you are only required to complete this section if you are willing to participate in an interview. You will only be contacted for the interview if more information or clarity is required regarding your responses on this questionnaire.

Please rest assured that:

- The information you provide will remain completely confidential.
- Your personal details provided here will only be accessed by my supervisor and myself.
- this page will be removed from the main questionnaire before it is sent for analysis.

55. Please provide the following information: Name, email address and contact details

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**Thank you for your participation and your time in completing this questionnaire**

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INSTITUTIONAL RESEARCH ETHICS COMMITTEE (IREC)  
LETTER OF INFORMATION

ACADEMIC STAFF

**Title of the Research Study:**

Staff and student perceptions of research structures and services provided by the Faculty Research Offices at a University of Technology

**Principal Investigator/s/researcher:** Musawenkosi Ngibe, BTech: OMT

**Supervisor:** Prof. P. Singh, PhD

**Brief Introduction and Purpose of the Study:**

Universities have become research intensive as their subsidies are determined by research output. Sound academic and administrative support at grass roots or faculty level is critical for the enhancement of research output. The aim of this study therefore is to investigate academic staff and postgraduate students' perceptions of decentralised research services and structures provided by the faculty research offices at a UoT in South Africa.

**Outline of the Procedures:**

Participants are urged to fully complete the questionnaire as this will enable the analysis to be efficient and accurate based on the responses. Please answer all questions honestly and to the best of your knowledge. Semi-structured interviews may be conducted where responses on the questionnaire are unclear, incomplete or where further or more detailed information is required. To answer the questionnaire will take about 10 minutes and interviews will only be scheduled where more detailed information is required.

## **Appendix E – Letter of information and Consent form: Academic staff**

### **Risks or Discomforts to the Participant:**

There are no risks or discomfort to the participants.

### **Benefits:**

The study will benefit the participants and the university with knowledge in terms of what the institution needs to do to enhance research. This researcher may also draw recommendations and conclusions based on what the participants perceive of decentralised research structures and services provided by the UoT. Benefit to the researcher will be research publications and completion of MTech Commercial Administration qualification.

### **Reason/s why the Participant May Be Withdrawn from the Study:**

Participation is voluntary and the participant may withdraw from the study at any stage without having to provide a reason.

### **Remuneration:**

No remuneration is to be received by the participants.

### **Costs of the Study:**

There is no cost to the research participant.

### **Confidentiality:**

The researcher assures the research participants of the following, to:

- maintain your confidentiality and security of all your questionnaire responses;
- protect your rights and welfare, i.e. to ensure that no harm comes to you as a result of your participation in this research; and
- to make available on request, the findings of this research.

### **Persons to Contact in the Event of Any Problems or Queries:**

Please contact the researcher on: 078 635 0982/031-373 5599 or the supervisor: Prof P. Singh, PhD on 031 373 6767. Complaints can be reported to the DVC: TIP, Prof F.A. Otieno at [dvctip@dut.ac.za](mailto:dvctip@dut.ac.za)

**Appendix E – Letter of information and Consent form: Academic staff**



**CONSENT**

**Statement of Agreement to Participate in the Research Study:**

- I hereby confirm that I have been informed by the researcher, Musawenkosi Ngibe, about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: REC 22/13,
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

\_\_\_\_\_

**Full Name of Participant                      Date                      Time                      Signature**

I, Musawenkosi Ngibe herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

\_\_\_\_\_

**Full Name of Researcher                      Date                      Signature**



**INSTITUTIONAL RESEARCH ETHICS COMMITTEE (IREC)  
LETTER OF INFORMATION**

**Faculty Research Co-ordinators**

**Title of the Research Study:**

Staff and student perceptions of research structures and services provided by the Faculty Research Offices at a University of Technology

**Principal Investigator/s/researcher:** Musawenkosi Ngibe, BTech: OMT

**Supervisor:** Prof. P. Singh, PhD

**Brief Introduction and Purpose of the Study:**

Universities have become research intensive as their subsidies are determined by research output. Sound academic and administrative support at grass roots or faculty level is critical for the enhancement of research output. The aim of this study therefore is to investigate academic staff and postgraduate students' perceptions of decentralised research services and structures provided by the faculty research offices at a UoT in South Africa.

**Outline of the Procedures:**

Structured interviews will be conducted with all Faculty Research Co-ordinators, Faculty Research Officers, and Faculty Research Assistants; these interviews will be conducted using a structured schedule. Participation is voluntary and the participant may withdraw from the study at any stage without having to provide a reason. It will be highly appreciated if you could please answer all questions honestly and to the best of your ability. The interviews will approximately be 35 minutes and will take place on the respondents' preferred location. With your consent, the interview will be audio-recorded to capture correct information and the information will be transcribed and analysed using software. A copy of the recorded interview will be sent to you to verify

the correctness of the interview. The questions are based on research structures and services provided by your office to staff members and postgraduate students.

**Risks or Discomforts to the Participant:**

There are no risks or discomfort to the participants.

**Benefits:**

The study will benefit the participants and the university with knowledge in terms of what the institution needs to do to enhance research. This researcher may also draw recommendations and conclusions based on what the participants perceive of decentralised research structures and services provided by the UoT. Benefit to the researcher will be research publications and completion of MTech Commercial Administration qualification.

**Reason/s why the Participant May Be Withdrawn from the Study:**

Participation is voluntary and the participant may withdraw from the study at any stage without having to provide a reason.

**Remuneration:**

No remuneration is to be received by the participants.

**Costs of the Study:**

There is no cost to the research participant.

**Confidentiality:**

The researcher assures the research participants of the following, to:

- maintain your confidentiality and security of all your questionnaire responses;
- protect your rights and welfare, i.e. to ensure that no harm comes to you as a result of your participation in this research; and
- to make available on request, the findings of this research.

**Persons to Contact in the Event of Any Problems or Queries:**

Please contact the researcher on: 078 635 0982/031-373 5599 or the supervisor: Prof P. Singh, PhD on 031 373 6767. Complaints can be reported to the DVC: TIP, Prof F.A. Otieno at [dvctip@dut.ac.za](mailto:dvctip@dut.ac.za)



## CONSENT

### Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Musawenkosi Ngibe, about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: REC 22/13,
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

I, Musawenkosi Ngibe herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

\_\_\_\_\_  
Full Name of Researcher

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature



**INSTITUTIONAL RESEARCH ETHICS COMMITTEE (IREC)  
LETTER OF INFORMATION**

**Faculty Research / Research Officers/Assistants**

**Title of the Research Study:**

Staff and student perceptions of research structures and services provided by the Faculty Research Offices at a University of Technology

**Principal Investigator/s/researcher:** Musawenkosi Ngibe, BTech: OMT

**Supervisor:** Prof. P. Singh, PhD

**Brief Introduction and Purpose of the Study:**

Universities have become research intensive as their subsidies are determined by research output. Sound academic and administrative support at grass roots or faculty level is critical for the enhancement of research output. The aim of this study therefore is to investigate academic staff and postgraduate students' perceptions of decentralised research services and structures provided by the faculty research offices at a UoT in South Africa.

**Outline of the Procedures:**

Structured interviews will be conducted with all Faculty Research Co-ordinators, Faculty Research Officers, and Faculty Research Assistants; these interviews will be conducted using a structured schedule. Participation is voluntary and the participant may withdraw from the study at any stage without having to provide a reason. It will be highly appreciated if you could please answer all questions honestly and to the best of your ability. The interviews will approximately be 35 minutes and will take place on the respondents' preferred location. With your consent, the interview will be audio-recorded to capture correct information and the information will be transcribed and analysed using software. A copy of the recorded interview will be sent to you to verify

the correctness of the interview. The questions are based on research structures and services provided by your office to staff members and postgraduate students.

**Risks or Discomforts to the Participant:**

There are no risks or discomfort to the participants.

**Benefits:**

The study will benefit the participants and the university with knowledge in terms of what the institution needs to do to enhance research. This researcher may also draw recommendations and conclusions based on what the participants perceive of decentralised research structures and services provided by the UoT. Benefit to the researcher will be research publications and completion of MTech Commercial Administration qualification.

**Reason/s why the Participant May Be Withdrawn from the Study:**

Participation is voluntary and the participant may withdraw from the study at any stage without having to provide a reason.

**Remuneration:**

No remuneration is to be received by the participants.

**Costs of the Study:**

There is no cost to the research participant.

**Confidentiality:**

The researcher assures the research participants of the following, to:

- maintain your confidentiality and security of all your questionnaire responses;
- protect your rights and welfare, i.e. to ensure that no harm comes to you as a result of your participation in this research; and
- to make available on request, the findings of this research.

**Persons to Contact in the Event of Any Problems or Queries:**

Please contact the researcher on: 078 635 0982/031-373 5599 or the supervisor: Prof P. Singh, PhD on 031 373 6767. Complaints can be reported to the DVC: TIP, Prof F.A. Otieno at [dvctip@dut.ac.za](mailto:dvctip@dut.ac.za)



## CONSENT

### Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Musawenkosi Ngibe, about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: REC 22/13,
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

\_\_\_\_\_

Date

\_\_\_\_\_

Signature

I, Musawenkosi Ngibe herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

\_\_\_\_\_  
Full Name of Researcher

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

## Appendix H: Academic staff questionnaire



### Academic staff research questionnaire

The purpose of this questionnaire is to collect data for the purposes of the MTech Corporate Administration research project titled: **staff and student perception of research structures and services provided by the Faculty Research Offices at a University of Technology.**

Please answer this questionnaire by placing a cross [X] next to the option/s that applies in each case.

#### Section A: Biographical information

1. Please indicate your position at DUT

Junior Lecturer	
Lecturer	
Senior Lecturer	
Head of Department	
Associate professor	
Professor	
Academic Support	
Other Please specify :	

2. Please indicate your highest qualification

Senior Certificate	
National Diploma	
Bachelor of Technology	
Degree	
Masters	
Doctorate	
Other Please specify:	

3. How many years have you been working at DUT?

Less than a year	
1 - 6 years	
7 – 12 years	
13 – 18 years	
19 – 24 years	
25 – 30 years	
More than 30 years	

4. In what capacity are you employed at DUT?

Full time	
-----------	--

## Appendix H: Academic staff questionnaire

Contract	
Part-time	
Other	

### Section B: Services provided by my Faculty Research Office

Statement	Yes	No
5. Are you familiar with your Faculty Research Office?		
6. Is it easy to find/locate your Faculty Research Office?		
7. Is there a comprehensive guide provided by the Faculty Research Office for postgraduate students?		
8. Is your Faculty Research Office reliable and easy to get information?		
9. Do you use the services offered by your Faculty Research Office?		
10. Does your Faculty Research Office offer programs/workshops to help staff and students to better their research skills?		
11. Does your Faculty Research Office track students' progress in their studies?		

12. How often do you deal with your Faculty Research Office?

Everyday	
Each week	
Once a month	
Once a term	
Once every six months	
When I have research related problems	
When I need information	
Other: Please specify	

13. For what reasons do you visit your Faculty Research Office? You may choose more than one option

To get general information about postgraduate studies	
To get information about registration	
To get information about PG1 to PG13 forms	
To get assistance when completing forms	
To enquire about the services which the Faculty Research Office provides to postgraduates	
To enquire about workshops to be conducted for postgraduates	
To request for a supervisor or co-supervisor	
To request for a change of supervisor or co-supervisor	
To get information about proposal routing	
To get information about the postgraduate faculty funding	
To get information regarding conference funding	
To enquire about examination process	
To enquire about graduation	
Other: Please specify	

14. Is it helpful to have a Faculty Research Office in your faculty?

Yes

No

## Appendix H: Academic staff questionnaire

Please explain your answer

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15. Are staff members encouraged to enrol in postgraduate studies by your Faculty Research Office?

Yes	
No	

If 'yes', please explain how this is done

If 'no' what would you like your Faculty Research Office to do in this regard?

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16. What research services does your Faculty Research Office provide to staff who are not postgraduate but are doing research?

Staff are assisted with grant applications	
External funding is sourced for researchers	
Staff are assisted with the financial management of a grant	
Workshops are offered on project management skills	
Writing workshops are offered to assist staff to get published	
Other Please specify:	

17. What academic services would you like your Faculty Research Office to provide?

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18. What administrative support services would you like your Faculty Research Office to provide?

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19. Please indicate the services and support your Faculty Research office Offers to staff throughout their course of study in each of the following (two) sectors.

Sector 1: Administration Service and support	
S1.1 assists with enrolment/registration	
S1.2 provides student orientation	
S1.3 assist with selection of promoter/supervisor	
S1.4 assist with conference funding applications	
S1.5 assists returning students with re-admission/continuation of study	
S1.6 assist with procedures for examination	

## Appendix H: Academic staff questionnaire

Other Please specify:	
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Sector 2: Research Capacity Development and Support (you may choose more than one)	
S2.1 provides academic support to get students research published	
S2.2 provides guidance and assistance for obtaining research ethics clearance	
S2.3 has set up a researchers' forum	
S2.4 organises specific training on staff request (such as endnote)	
S2.5 provides language editing services	
S2.6 provides statistical analysis services	
S2.7 has postgraduate lab to assist staff members and students	
Other Please specify:	

20. How are services provided communicated to staff and students by your Faculty Research Office?

Via telephone	
Via emails	
Via short message service (SMS)	
Notices are displayed on the university homepage	
Notices are displayed on faculty noticeboards	
Postgraduate forum meetings	
Online forum	
Report to Faculty Board	
Other. Please specify	

21. Does your Faculty Research Office gather data about postgraduate students' expectations?

Yes	
No	

If you answered 'yes', please indicate how your Faculty Research Office gathers data about postgraduate students' expectation.

Surveys are conducted to investigate students' expectations	
Committees are set up in departments to deal with student's complaints and requirements	
Meetings are set up on a regular basis with different levels of administrative and academic staff members to determine student needs	
Regular postgraduate student forums are held to gather information	
Other Please explain:	

22. Does your Faculty Research Office monitor staff and students' conference attendance reports?

Yes	
-----	--

**Appendix H: Academic staff questionnaire**

No	
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If yes, please indicate how your Faculty Research Office gathers information regarding conference attendance reports

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23. Do you think the services provided by your Faculty Research Office meets your expectations?

Yes	
No	

If yes, what can be done to keep the Faculty Research Office aligned with delivering services that are expected by students?

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If no, what is it that your Faculty Research Office needs to do in order to meet your expectations?

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24. When students encounter research related problems in your faculty, where do you refer them in order to be assisted?

25. Any comment (positive or negative) that you would like to make regarding your Faculty Research Office

Questionnaire adapted from Zheng, J. (2012).

**Thank you for taking time to complete this questionnaire**

Appendix J: Statistician declaration for consultation

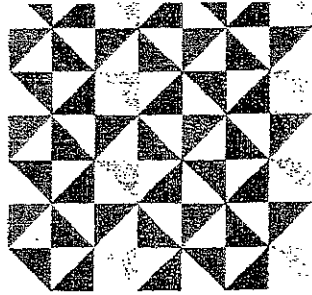


**STATISTICIAN DECLARATION FOR CONSULTATION:**

I, Deepak Singh have read Musawenkosi Ngibe's M.Tech proposal (student no: 20813980) and given him appropriate recommendations.

Signed.....  ..... Date 17 April 2013

## Appendix K: Ethical Approval



Institutional Research Ethics Committee  
Faculty of Health Sciences  
Room MS 49, Mansfield School Site  
Gate 8, Ritson Campus  
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2900

Fax: 031 373 2407

Email: lavishad@ducac.za

[http://www.dut.ac.za/research/institutional\\_research\\_ethics](http://www.dut.ac.za/research/institutional_research_ethics)

[www.dut.ac.za](http://www.dut.ac.za)

14 August 2013

IREC Reference Number: REC 22/13

Mr M Ngibe  
36 O'Flaherty  
Clare Estate  
Durban  
4091

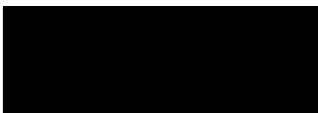
Dear Mr Ngibe

**Staff and student perceptions of research structures and services provided by the Faculty Research Offices at a University of Technology in South Africa**

The Institutional Research Ethics Committee acknowledges receipt of your final data collection tool for review.

We are pleased to inform you that the questionnaire has been APPROVED; you may now proceed with data collection on the proposed project.

Yours Sincerely



Prof J. K. Adam  
Chairperson: IREC

## Appendix L: Underpinning Statistics for the study

### Reliability

#### KMO and Bartlett's Test - Expectation

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.838	
Bartlett's Test of Sphericity	Approx. Chi-Square	228.980
	df	6
	Sig.	.000

#### KMO and Bartlett's Test - Perception

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.788	
Bartlett's Test of Sphericity	Approx. Chi-Square	182.262
	df	6
	Sig.	.000

### Responsiveness

#### KMO and Bartlett's Test - Expectation

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.859	
Bartlett's Test of Sphericity	Approx. Chi-Square	983.410
	df	171
	Sig.	.000

#### KMO and Bartlett's Test - Perception

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.817	
Bartlett's Test of Sphericity	Approx. Chi-Square	638.862
	df	171
	Sig.	.000

## Assurance

### KMO and Bartlett's Test - Expectation

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.915
Bartlett's Test of Sphericity	Approx. Chi-Square	457.106
	df	15
	Sig.	.000

### KMO and Bartlett's Test - Perception

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.873
Bartlett's Test of Sphericity	Approx. Chi-Square	302.529
	df	15
	Sig.	.000

## Empathy

### KMO and Bartlett's Test - Expectation

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.874
Bartlett's Test of Sphericity	Approx. Chi-Square	367.507
	df	15
	Sig.	.000

### KMO and Bartlett's Test - Perception

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.793
Bartlett's Test of Sphericity	Approx. Chi-Square	147.403
	df	15
	Sig.	.000

Certain components divided into finer components. This is explained below in the rotated component matrix.

Reliability	E	P
My Faculty Research Office provides services as promised	.940	.939
My Faculty Research Office provides services right the first time	.932	.954
The services provided by my Faculty Research Office satisfies my needs	.934	.944

Submitted forms/documents are kept confidential by my Faculty Research Office	.817	.410
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Responsiveness	Expectation			Perception				
	Component			Component				
	1	2	3	1	2	3	4	5
The information provided by my Faculty Research Office to students is always correct	.658	.324	.461	.154	.158	.634	.492	.031
When students encounter problems regarding research with other departments, my Faculty Research Office intervenes or assists	.385	.507	.536	.867	.051	.103	.290	-.027
My Faculty Research Office provides research capacity development and support to postgraduate students as requested	.670	.482	.344	.580	.484	.496	.174	.132
The registration process information given by my Faculty Research Office is accurate	.589	.229	.317	.185	.048	.840	.074	.038
Our Faculty Research Office deals with M and D Tech registrations	.118	.015	.848	.088	.023	.191	-.095	.904
My Faculty Research Office deals with the appointment of supervisors and co-supervisors	.034	.174	.826	.373	.081	-.181	.408	.592
Proposal writing workshops are facilitated by my faculty to assist students with proposal write-ups	.269	.815	.123	.789	.309	.048	-.077	.294
My Faculty Research Office informs students of decision/s taken by Faculty Research Committee (FRC) pertaining to students proposal submissions	.261	.827	.141	.729	.286	.222	-.186	.260
My Faculty Research Office staff always keeps students updated of the services they provide	.760	.425	.043	.274	.657	.456	-.028	.305
Having our own Faculty Research Office speeds up processes	.845	.287	-.009	.153	.716	.219	.339	-.002
Our Faculty Research Office assists in completing forms	.874	.069	.127	.186	.599	.047	.375	.474
The routing of proposal after approval by FRC is explained by my Faculty Research Office	.825	.308	.078	.256	.899	.096	.151	.094
Higher Degrees Committee decisions pertaining to student documents or applications are communicated to students by my Faculty Research Office	.714	.513	.029	.306	.816	.006	.163	-.068
Progress reports are monitored by my Faculty Research Office to track student progress	.698	.429	.251	.054	.267	.164	.829	.017
My Faculty Research Office conducts workshops to enhance students' capability in terms of research	.480	.641	.198	.673	.328	.339	.247	.110
My Faculty Research Office is reliable and efficient	.715	.440	.323	.479	.438	.266	.578	.022
My Faculty Research Office always looks after the best interest of students	.591	.587	.288	.708	.354	.278	.426	-.010
The examination process is clearly explained to students	.628	.579	.048	.465	.238	.280	.311	.195
My Faculty Research Office provides information that is needed by the students	.769	.452	.240	.561	.355	.591	.129	.164

Assurance	Expectation	Perception
-----------	-------------	------------

My Faculty Research Office staff members are very knowledgeable about services they provide	.932	.922
My Faculty Research Office staff members have good communication skills (in other words, they provide clear, helpful, complete and easy to understand answers when they attend to students' requests)	.961	.879
My Faculty Research Office staff are eager to assist students	.952	.894
The manner in which queries are handled by my Faculty Research Office staff instils confidence in students	.944	.918
My Faculty Research Office staff members always attend to students promptly	.927	.897
Our Faculty Research Office has enough staff to carry out the duties and services they provide	.878	.714
<b>Assurance</b>	<b>Expectation</b>	<b>Perception</b>
My Faculty Research Office staff members always welcomes students	.917	.849
My Faculty Research Office provides personal attention to each student	.948	.914
My Faculty Research Office has operating hours convenient to students	.882	.778
It is easy to find my Faculty Research Office	.920	.512
My faculty postgraduate research lab has advanced equipment (computer, telephone, etc)	.821	.578
Members of staff in my Faculty Research Office have neat and professional appearance	.880	.786

### Section Analysis

The graphs below indicate the mean scores for each statement, as well as the gap scores (which are the differences between the Mean Expectation and Mean Perception) for each component. Tables of mean scores are also presented by dimension.

The actual scoring patterns in terms of the frequencies can be found in the appendix.

The values were reverse coded (ie. 5 became 1 and 1 became 5) so as to show the magnitudes of the negative gaps.

### Reliability

This section looked at the ability of the Faculty Research Office to perform the promised services dependably and accurately.

Table

Statement Number	Statement	E	P	Gap
1	My Faculty Research Office provides services as promised	4.1	3.6	-0.5
2	My Faculty Research Office provides services right the first time	4.0	3.4	-0.6
3	The services provided by my Faculty Research Office satisfies my needs	4.0	3.4	-0.5
4	Submitted forms/documents are kept confidential by my Faculty Research Office	4.3	4.0	-0.3

	Completely Agree	Agree	Neutral	Disagree	Completely Disagree
	Row N %	Row N %	Row N %	Row N %	Row N %
E1	52.2%	20.9%	14.9%	6.0%	6.0%
P1	26.6%	32.8%	20.3%	14.1%	6.3%
E2	47.8%	25.4%	13.4%	6.0%	7.5%
P2	20.6%	33.3%	22.2%	14.3%	9.5%
E3	43.1%	30.8%	13.8%	4.6%	7.7%
P3	21.9%	32.8%	21.9%	14.1%	9.4%
E4	60.6%	19.7%	12.1%	1.5%	6.1%
P4	38.7%	32.3%	22.6%	3.2%	3.2%

The traditional approach to reporting a result requires a statement of statistical significance. A **p-value** is generated from a **test statistic**. A significant result is indicated with "p < 0.05". These values are highlighted in yellow.

To determine whether the differences were significant, a Wilcoxon test was done, as none of the variables were normally distributed. The results are shown below.

	P1 - E1	P2 - E2	P3 - E3	P4 - E4
Z	-2.825 <sup>b</sup>	-3.144 <sup>b</sup>	-2.955 <sup>b</sup>	-3.251 <sup>b</sup>
Asymp. Sig. (2-tailed)	.005	.002	.003	.001

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

All of the p-values (Asymp. Sig. (2-tailed)) are less than the level of significance of 0.05. This implies that the central values are not similar and that differences are significant.

## Responsiveness

Statement Number	Statement	E	P	Gap
5	The information provided by my Faculty Research Office to students is always correct	4.0	3.6	-0.4
6	When students encounter problems regarding research with other departments, my Faculty Research Office intervenes or assists	3.9	3.5	-0.4
7	My Faculty Research Office provides research capacity development and support to postgraduate students as requested	4.2	3.6	-0.6
8	The registration process information given by my Faculty Research Office is accurate	4.1	3.8	-0.3
9	Our Faculty Research Office deals with M and DTech registrations	4.0	3.3	-0.7
10	My Faculty Research Office deals with the appointment of supervisors and co-supervisors	3.7	3.3	-0.4

11	Proposal writing workshops are facilitated by my faculty to assist students with proposal write-ups	4.2	3.7	-0.5
12	My Faculty Research Office informs students of decision/s taken by Faculty Research Committee (FRC) pertaining to students proposal submissions	4.1	3.6	-0.5
13	My Faculty Research Office staff always keeps students updated of the services they provide	4.1	3.4	-0.7
14	Having our own Faculty Research Office speeds up processes	4.1	3.5	-0.6
15	Our Faculty Research Office assists in completing forms	3.9	3.3	-0.6
16	The routing of proposal after approval by FRC is explained by my Faculty Research Office	3.9	3.4	-0.5
17	Higher Degrees Committee decisions pertaining to student documents or applications are communicated to students by my Faculty Research Office	3.8	3.3	-0.6
18	Progress reports are monitored by my Faculty Research Office to track student progress	3.7	3.2	-0.5
19	My Faculty Research Office conducts workshops to enhance students' capability in terms of research	4.1	3.6	-0.5
20	My Faculty Research Office is reliable and efficient	3.9	3.3	-0.6
21	My Faculty Research Office always looks after the best interest of students	4.0	3.4	-0.5
22	The examination process is clearly explained to students	3.8	3.2	-0.5
23	My Faculty Research Office provides information that is needed by the students	4.0	3.6	-0.4

	Completely Agree	Agree	Neutral	Disagree	Completely Disagree
	Row N %	Row N %	Row N %	Row N %	Row N %
E5	53.0%	16.7%	16.7%	4.5%	9.1%
P5	28.6%	28.6%	25.4%	11.1%	6.3%
E6	47.0%	16.7%	25.8%	3.0%	7.6%
P6	31.7%	17.5%	28.6%	15.9%	6.3%
E7	56.9%	20.0%	10.8%	7.7%	4.6%
P7	34.4%	23.4%	15.6%	21.9%	4.7%
E8	51.6%	23.4%	15.6%	3.1%	6.3%
P8	32.8%	32.8%	20.3%	7.8%	6.3%
E9	50.8%	21.5%	12.3%	3.1%	12.3%
P9	29.7%	18.8%	20.3%	14.1%	17.2%
E10	36.9%	23.1%	24.6%	3.1%	12.3%
P10	19.4%	25.8%	30.6%	16.1%	8.1%
E11	62.5%	15.6%	10.9%	3.1%	7.8%
P11	41.3%	23.8%	9.5%	14.3%	11.1%
E12	58.5%	15.4%	10.8%	6.2%	9.2%
P12	33.8%	26.2%	15.4%	10.8%	13.8%
E13	52.3%	24.6%	9.2%	4.6%	9.2%
P13	24.2%	27.4%	19.4%	17.7%	11.3%
E14	54.8%	21.0%	12.9%	1.6%	9.7%
P14	33.3%	20.6%	23.8%	7.9%	14.3%
E15	40.6%	29.7%	17.2%	6.3%	6.3%

P15	20.6%	27.0%	23.8%	19.0%	9.5%
E16	46.0%	20.6%	19.0%	6.3%	7.9%
P16	25.4%	28.6%	22.2%	11.1%	12.7%
E17	43.8%	18.8%	20.3%	10.9%	6.3%
P17	22.2%	23.8%	27.0%	12.7%	14.3%
E18	41.3%	23.8%	15.9%	6.3%	12.7%
P18	16.1%	32.3%	25.8%	9.7%	16.1%
E19	55.6%	23.8%	6.3%	3.2%	11.1%
P19	40.3%	24.2%	9.7%	9.7%	16.1%
E20	48.4%	14.5%	22.6%	8.1%	6.5%
P20	17.7%	33.9%	21.0%	14.5%	12.9%
E21	49.2%	15.9%	23.8%	3.2%	7.9%
P21	24.2%	25.8%	30.6%	6.5%	12.9%
E22	38.3%	18.3%	28.3%	10.0%	5.0%
P22	21.7%	16.7%	36.7%	11.7%	13.3%
E23	46.9%	20.3%	21.9%	4.7%	6.3%
P23	23.4%	29.7%	32.8%	9.4%	4.7%

The Wilcoxon test results are shown below.

Test Statistics <sup>a</sup>	Z	Asymp. Sig. (2-tailed)
	P5 - E5	-3.039 <sup>b</sup>
P6 - E6	-2.735 <sup>b</sup>	.006
P7 - E7	-3.431 <sup>b</sup>	.001
P8 - E8	-3.332 <sup>b</sup>	.001
P9 - E9	-3.854 <sup>b</sup>	.000
P10 - E10	-2.475 <sup>b</sup>	.013
P11 - E11	-3.161 <sup>b</sup>	.002
P12 - E12	-3.423 <sup>b</sup>	.001
P13 - E13	-3.598 <sup>b</sup>	.000
P14 - E14	-3.295 <sup>b</sup>	.001
P15 - E15	-3.168 <sup>b</sup>	.002
P16 - E16	-3.006 <sup>b</sup>	.003
P17 - E17	-3.468 <sup>b</sup>	.001
P18 - E18	-3.150 <sup>b</sup>	.002
P19 - E19	-3.121 <sup>b</sup>	.002
P20 - E20	-3.044 <sup>b</sup>	.002
P21 - E21	-2.835 <sup>b</sup>	.005
P22 - E22	-2.456 <sup>b</sup>	.014
P23 - E23	-3.361 <sup>b</sup>	.001

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

All of the differences are significant.

### Assurance

Statement Number	Statement	E	P	Gap
24	My Faculty Research Office staff members are very knowledgeable about services they provide	4.1	3.5	-0.6
25	My Faculty Research Office staff members have good communication skills (in other words, they provide clear, helpful, complete and easy to understand answers when they attend to students' requests)	4.0	3.6	-0.4
26	My Faculty Research Office staff are eager to assist students	4.0	3.7	-0.4
27	The manner in which queries are handled by my Faculty Research Office staff instils confidence in students	4.0	3.5	-0.5
28	My Faculty Research Office staff members always attend to students promptly	4.0	3.4	-0.5
29	Our Faculty Research Office has enough staff to carry out the duties and services they provide	3.7	2.9	-0.8

	Completely Agree	Agree	Neutral	Disagree	Completely Disagree
	Row N %	Row N %	Row N %	Row N %	Row N %
E24	51.6%	17.7%	21.0%	4.8%	4.8%
P24	20.6%	30.2%	31.7%	12.7%	4.8%
E25	48.4%	24.2%	16.1%	4.8%	6.5%
P25	22.6%	40.3%	21.0%	11.3%	4.8%
E26	44.4%	30.2%	14.3%	4.8%	6.3%
P26	29.7%	31.3%	21.9%	9.4%	7.8%
E27	43.5%	32.3%	12.9%	6.5%	4.8%
P27	25.4%	30.2%	20.6%	15.9%	7.9%
E28	45.2%	29.0%	11.3%	6.5%	8.1%
P28	22.2%	34.9%	19.0%	11.1%	12.7%
E29	39.7%	17.5%	28.6%	6.3%	7.9%
P29	11.1%	15.9%	39.7%	22.2%	11.1%

The Wilcoxon test is shown below.

Test Statistics <sup>a</sup>						
	P24 - E24	P25 - E25	P26 - E26	P27 - E27	P28 - E28	P29 - E29
Z	-3.350 <sup>b</sup>	-3.156 <sup>b</sup>	-2.393 <sup>b</sup>	-3.363 <sup>b</sup>	-2.988 <sup>b</sup>	-4.149 <sup>b</sup>
Asymp. Sig. (2-tailed)	.001	.002	.017	.001	.003	.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

All of the ranked mean differences are significant.

## Empathy

Statement Number	Statement	E	P	Gap
30	My Faculty Research Office staff members always welcomes students	4.0	3.6	-0.4
31	My Faculty Research Office provides personal attention to each student	4.0	3.7	-0.3
32	My Faculty Research Office has operating hours convenient to students	4.1	3.8	-0.2
33	It is easy to find my Faculty Research Office	4.1	3.0	-1.1
34	My faculty postgraduate research lab has advanced equipment (computer, telephone, etc)	4.0	3.6	-0.4
35	Members of staff in my Faculty Research Office have neat and professional appearance	4.0	4.0	-0.1

	Completely Agree	Agree	Neutral	Disagree	Completely Disagree
	Row N %	Row N %	Row N %	Row N %	Row N %
E30	41.9%	32.3%	11.3%	8.1%	6.5%
P30	30.6%	25.8%	22.6%	14.5%	6.5%
E31	41.9%	32.3%	14.5%	3.2%	8.1%
P31	28.3%	33.3%	21.7%	11.7%	5.0%
E32	48.4%	29.0%	11.3%	3.2%	8.1%
P32	40.3%	25.8%	14.5%	14.5%	4.8%
E33	50.8%	27.9%	9.8%	3.3%	8.2%
P33	22.6%	17.7%	11.3%	29.0%	19.4%
E34	47.5%	21.3%	18.0%	8.2%	4.9%
P34	28.3%	28.3%	25.0%	11.7%	6.7%
E35	49.2%	26.2%	11.5%	6.6%	6.6%
P35	40.3%	32.3%	16.1%	8.1%	3.2%

The Wilcoxon test scores are shown below.

	P30 - E30	P31 - E31	P32 - E32	P33 - E33	P34 - E34	P35 - E35
Z	-2.534 <sup>b</sup>	-2.847 <sup>b</sup>	-2.099 <sup>b</sup>	-4.523 <sup>b</sup>	-2.946 <sup>b</sup>	-1.485 <sup>b</sup>
Asymp. Sig. (2-tailed)	.011	.004	.036	.000	.003	.138

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

It is noted that even though the last pair zero difference, the mean rank is not that different between Expectations and Perceptions. This can be observed from the similar proportions of respondents who agreed, scored neutral or disagreed for the two categories.

The remaining differences had significantly different ranked means.

### General Comments

The table below are a summary of the additional comments made by respondents. Frequencies are low, so it might be best to summarise as a discussion paragraph.

B36

	Frequency
PG 4a to PG 13	26
PG 4a to PG 13, Application for funding, Application for scholarship, Application to attend a conference/seminar/symposium/workshop, Application for Conference Funding	16
PG 4a to PG 13, Application for funding, Application for scholarship, Application to attend a conference/seminar/symposium/workshop	3
PG 4a to PG 13, Application to attend a conference/seminar/symposium/workshop	3
PG 4a to PG 13, Application for funding	2
PG 4a to PG 13, Application for funding, Application for scholarship	2
PG 4a to PG 13, Application for scholarship, Application to attend a conference/seminar/symposium/workshop	2
Application to attend a conference/seminar/symposium/workshop, Application for Conference Funding	1
I don't know.	1
I had to acquire the forms for myself of the website and some were forwarded to me / my supervisor	1
PG 4a to PG 13, Application for Conference Funding	1
PG 4a to PG 13, Application for funding, Application for Conference Funding	1
PG 4a to PG 13, Application for funding, Application for scholarship, Application for Conference Funding	1
PG 4a to PG 13, Application for funding, Application to attend a conference/seminar/symposium/workshop	1
PG 4a to PG 13, Application for scholarship, Application for Conference Funding	1
PG 4a to PG 13, Application to attend a conference/seminar/symposium/workshop, Application for Conference Funding	1

B37

	Frequency
Actually it's my first time hearing that there is a faculty research office in all the faculties. I would like the faculty research office to address us as postgraduate students as to what they offer	1
Admin support in that all details are captured when proposal is accepted at HDG - and not having to resubmit this information in 100 different ways - you already have it....	1
All relevant services are provided.	1
Assistance with conference funding applications	1
Better links to research funding and how to apply	1
Competent supervisors	2
Faculty Research Office should be responsible of PG students registration	1
Have more relevant forms for Post-grad students	1
I have been consulting with my department and the reason for that is because they have been assisting me with proposal writing workshops, and other research related queries	1
I have just joined the Faculty but so far I am pleased with the way they have treated me.	1
I have not used the faculty research office due to me not being aware of their existence. My supervisor has referred to them, however I thought he was referring to the Post Graduate Research office.	1
I struggled to have a supervisor and i plea to the Faculty Research Office to employ more supervisors	1
I think postgrad. Registration should be done at the Faculty Research Office.	1
I think the FRO should provide all research-related services.	1
Industrial practices and further research	1

It should provide scanners, printers, ipads, photocopying machines and constantly servicing the computers to ensure that they are in good condition.	1
more direction and information when forms etc are changed	1
More guidelines on what funding and research services that are available.	1
More supervisors in field of study.	1
My department helps me with my research stuff	1
N/A	1
none	1
None	2
None that I can think of	1
Post graduate guidance and educational support by organizing workshops and well equipped labs.	1
Post Lab must have a photocopying machine	1
Postgrad and undergrad research methodology support	1
Printer in the Laboratory, to ease and help students in their research, A separate apartment for D.Tech students and a Computer system to each D.Tech/M.Tech students.	1
Prompt feedback and a more friendly approach it sometimes feel like they are doing the student a favour	1
Re-registration to be done at the Faculty Research Office	1
research capacity building services, Tutoring and mentoring, research getaway sessions, Library liaison and communication, Library intervention sessions	1
Services that focus more on encouraging local student to enrol for M or D Degree	1
streamline registration process for postgraduate	1
student orientation, assist with conference funding applications and help complete the documents	1
the examination process is very long and it is not right	1
The Faculty Research Office is heading towards a right direction, but in terms of the processes it is very slow e.g. getting a proposal to be approved by the FRC, IREC and be ratify by HDC takes very long and in many cases you end up quitting or being lazy.	1
The Faculty Research Office should organise workshops to enhance students, especially at the initial stage of the proposal, Give assistance to students in terms of completing forms, informing the students about postgrad processes, more interaction with the Faculty Office and students	1
The processes are very slow, you can wait for ever just to get information. Poor management, administrators are nowhere to be found and really it's frustrating to be in that faculty.	1
This would be better if it was about the Department as I am not familiar of the services provided by the Faculty Research Office	1
Trainings on research	1
Updating students on their research status regularly.	1
Workshops on proposal writing, literature review, data analysis.	1

B38

	Frequency
A fully functioning Research Office with dedicated staff members will hugely bear productivity.	1
A more well-known presence and information about their existence and services on offer	1
Assistant staff to be more approachable	1
Availability of more supervisors	1
Circulate information about services they provide and be located in a convenient location	1
Communication with students	1
Create more awareness of the office and its services. I'm a D-tech student and unaware of its existence.	1
I am not really sure as to what I can say on this.	1
i feel that the process of approving proposal takes too long and sometime it take more than a month, if this can be expedited, then students can complete their M and DTech's in minimum time	1
I just registered so it's hard to know where improvement is needed	1

I think they are doing a good job currently and they should be upheld.	1
It is not easy to find the faculty research office. there is only one person who works there and if she is not available everything stops, i think more personnel will make the research office efficient and effective	1
It is very difficult to find the Faculty Research Office it would have been better if it was situated in an open place where we can easily access.	1
Let the Faculty Research Office expedite the processes and allow the students proposals be approved within 3 months.	1
More competent supervisors	2
More funding for Master's and PhD researcher. Respective R10, 000 and R15, 000 is very minimal.	1
More people to assist us as it is very difficult to get hold of the Research Officer, better treatment, and proposal approvals that very long, sending of thesis to examiners take very long as well and reports from examiners take more than 4months and that really kills us as students. The Faculty Research Office needs to expedite matters	1
More permanent staff members	1
More staff members in Faculty research office are needed. Registration should be done at the Faculty Research Office. Is not conveniently located, it should be out there where everyone could see it	1
More supervisors need to be employed, Research structure needs to be developed	1
more workshops	1
nil	1
None	2
NONE	1
Organise student research workshops and supervision beyond times allocated to supervisors	1
Prompt attention when complaints are made	1
Prompt response and service	1
responses after FRC presentations should be communicated	1
Signage, Refreshments, Better communication to students- sms facility, Faculty Facebook to enhance communication and learning	1
The Faculty Research officer works half day and on other days works in other offices and cannot be reached. It would be better if she is available all the time.	1
The processes needs to be expedited e.g conference application, Research Proposal, sending of dissertation to examiners.	1
there is a high need of Supervisors in our faculty	1
They have to market the services they offer.	1
They should perform their duties, They should not be difficult on the registration especially if you are continuing student.	1
To be in constant contact with more especially part time students as they don't have much time to know the FRC as they spend most of their time away from the university	1
To more efficient in communicating with students	1
To promote participation in industrial research opportunities internationally	1
Weekly FRC meetings to improve the turnaround time for students to receive corrections on their proposals	1

B39

	Frequency
Admin support in that all details are captured when proposal is accepted at HDG - and not having to resubmit this information in 100 different ways - you already have it....	1
As above	1
Assisting students by referring them to statisticians.	1
Establish ethics research committee within the faculty like Management Sciences as i think i would expedite the approval of research proposals	1
I am not sure as to what I can say on this.	1
I am not sure what it that they offer is and what they don't offer. But in order to judge their service, they must let us know what they offer us as postgrad students. at this time our department plays a vital role with the supervisor in informing us about the processes	1

I think registration should be done by the Faculty Research Office because departments are too concerned with undergraduate students. Especially re-registration	1
Improve customer services to the student , to show more respect, and to be more approachable	1
More clarity is needed on the examination process	1
More decentralised library services, for Post graduate students.	1
More efficiency when handling queries and prompt response	1
more individualized assistance	1
More information should be given to students when they register and expectations from them should be highlighted.	1
More involvement with students	1
More time for lecturers to complete research and write papers	1
N/A	2
nil	1
No changes	1
no idea	1
Non	1
None	1
One stop services that have better workflows and accountability for documentation and processes to be effected for prompt service, Feedback and tracking of the documentation	1
Organising peer meetings and events for students. having a structure in place that monitors student work	1
Prompt assistant	1
Prompt response and service	1
Quicker turnaround time of proposals for students to decrease the delay in student qualification	1
Should be Efficient, Extend service time (office hours to normal official working hours.)	1
So far so good and i am enjoying my time here and	1
Students need to be prioritized and taken seriously.	1
That they must ensure that information is provided to students on time more especially to off campus students so to plan in time on how to attend research workshops	1
The examination process needs to be explained across. Handling of situations differ sometime and the research needs to clearly look into that.	1
The Faculty Research Office takes time to respond to your request/queries, and that makes it very difficult to work with them. Processes are slow in some cases. Better handling of processes is needed.	1
The Office must not try to re-supervise the students, its duty is to liaise students with the FRC.	1
To facilitates and promote continuous participation in research seminars nationally.	1

B40

	Frequency
Actually I would like my department (as they are the ones who provides all pg services) to try and minimize the process of Proposal approvals. Also the information regarding scholarships is not communicated to us postgraduate students we only hear about it from our colleagues from other faculties.	1
Admin support in that all details are captured when proposal is accepted at HDG - and not having to resubmit this information in 100 different ways - you already have it....	1
All our queries are handled by the department assistant and the services is not of good quality. Processes are not structured clearly and information is not easily accessible. Proposals takes long to be approved with the DRC making it difficult for us. Sometimes it become so difficulty that you think of quitting.	1
All the best for the future, my this study help to enhance research in this faculty, but i think we are heading towards the right direction	1
All the services and procedures spoken about above are done by my department and supervisor e.g. the information regarding approval of Research Proposal and HDC information regarding the Research Proposal is communicated to me by my supervisor and department.	1

Better administrative management processes because it's frustrating to wait for your thesis to be sent to examiner after a month when you submitted.	1
During my first year of registration (2011) the services provided my faculty office was not at all favourable; But in 2013 I am happy with the services provided by faculty office, thanks to the current staff member who is really assisting me.	1
Frequent chance of date for presentations/ seminar etc	1
FRO has not done enough to ensure that there is a larger pool of supervisors for student to choose from	1
have more workshops on how to write literature for a dissertation and paper	1
Hiring of relevant/proper supervisors. This is to ensure that the supervisor and the student speak the same language.	1
I am not sure that I have ever interacted with the FRO. If I have then it was completely by accident.	1
I believe the research office has a solid group of people though there is always room for improvement however this those not take away from what they have achieved thus far.	1
I have just started with my proposal, and I have been received with warm hand by my faculty research office. they really assist me when I have problems	1
I just commenced with my research proposal, and so far my department has been doing all the administrative work eg. registration, workshops, communication etc	1
I only sent an email to the Faculty Research Officer when my supervisor referred me to her regarding the examination processes but she hasn't responded and it been 2 weeks now.	1
I rarely receive information from the Faculty Research Office as a result I have opted to stick with my department as they seem knowledgeable with research processes.	1
I think my faculty is on tract as I have seen that they are bring experienced doctors and professor's to enhance and encourage research activities in our faculty	1
I think that the staff are courteous and helpful and professional.	1
I think the Faculty Research Office must let us know of what services do they offer.	1
I think the Faculty Research Office should be situated in a convenient place, as it is hard to locate it. Marketing is essential so that we can be able to benefit from their services.	1
I think the faculty research office should introduce its self to new students in the faculty by holding workshops or orientations so that we get to know and understand their involvement with postgraduate students.	1
I think the FRO should provide all necessary research-related matters.	1
I visit my department when I have research related issues and they assist me with most of the things above	1
I wish i could know where the Faculty Research office so that i can visit them and ask about the services they provide for Postgraduate students	1
Improve accessibility and availability and give prompt feedback and not wait for the student to make an enquiry	1
Keep on doing good and please address student's grievances	1
Keep on sending us research workshops details	1
More consistency in handling documents	1
More equipment facilities eg: photocopy machine ,fax and scan machine for the faculty lab	2
More personnel needed.	1
More personnel to assist as the intake of postgraduate is increasing, We battle to get supervisors and supervisors are always busy and sometime they take time to respond/ give you feed back	1
Most of the thing in this questionnaire are basically facilitated by my department.	1
Most of the things asked above are carried out by my department, eg. registrations, conference funding applications, nomination of supervisors, workshops etc.	1
My department and supervisors assist me in research and they explain the procedures of the department and faculty. I would like to see my department organising more writing of proposal workshops and endnote workshops	1
My department assist me with my research and research processes	1
My friends and I have been consulting with the department when we needed assistance with research. Since the Faculty Research office is there to assist students as the questionnaire points that way, then our Faculty Research Office definitely needs to inform us of the services they provide so that we can use them to our advantage.	1
n/a	1
N/A	1
nil	2
No	1
no idea	1

None	2
NONE	1
Our Faculty Research Office is not efficient, it takes long to respond to queries. Administrative processes are very slow.	1
Proposals takes too long to be approved, and there is no transparency in handling issues or problems.	1
Some of the functions/activities are performed by my department	1
The department facilitate the above mentioned activities and helps us a lot	1
The department that i am registered under helps us with the information above	1
the faculty is doing a good job, however there is room for improvement in terms of the services like printers scanners and other relevant equipment	1
The Faculty Research Office does not market itself to postgraduate students as a result we as the postgraduate students are very much unaware of what they offer. For most of my research, i turn to my supervisor and he assist me, where need arises she sends me to Postgrad Support and Development office(Steve Biko Gate 1)	1
The Faculty research office has been very informative and helpful	1
The faculty research Office has welcomed me well and I am grateful to be part of the faculty and institution	1
The Faculty Research Office should market its self to the faculty so that the students can be aware and be informed of what they offer to postgraduate students	1
The information and assistance provided by the faculty research office is very helpful for participation in research activities.	1
The office is not efficient, never responds to queries. slow administrative processes	1
The office provide all relevant services needed by post graduate students.	1
The questions asked in this questionnaire are related to my department as they are the ones who carry out the research administrative services	1
The work they are doing is so good compared to other institutions in Africa. The completion of the research work is left to the student's effort.	1
There is nothing much I can say, as I have just started.	1
They do a good job but there is still room for improvement	1
They have been helpful whenever I requested for help. i am grateful for that.	1
They should inform us their roles and responsibilities; They must perform their duties; I do not know why they are there.	1
What is the Faculty Research Office for/	1



**STRUCTURED INTERVIEWS FOR FACULTY RESEARCH CO-ORDINATORS**

The purpose of the interviews is to collect data for the purposes of the MTech Corporate Administration research project titled: **staff and student perception of research structures and services provided by the Faculty Research Offices at a University of Technology.**

1. What is your job title? Do you think this title adequately describes your job?
2. How long have you been working in the Faculty Research Office (FRO)
3. What is the purpose of your office?
4. What services are provided by your office?
5. Is your office conveniently located in the faculty? Explain
6. Does your office assist with M and DTech registration? What services does your office provide in this regard?
7. Does your office provide proposal writing workshops to assist students with proposal write-ups? Please explain how this done.
8. Does your office deal with the appointment of supervisors and co-supervisors? What service/s does your office provide in this regard?
9. How are students informed of decision/s taken by the Faculty Research Committee (FRC) pertaining their Proposal?
10. How are students informed by your office of decisions taken by the Higher Degrees Committee (HDC) pertaining to their submissions?
11. What structures/programs are put in place by your office to enhance research in your faculty?
12. What support is given to students enrolling for postgraduate studies
13. What research capacity development and support does your office offer postgraduate students?

14. When students encounter problems regarding research with other departments, what does your office do to assist them?
15. What support is given to staff members who are engaged in research postgraduate studies?
16. What additional support is given to staff members participating in research but not registered for postgraduate studies?
17. What is the procedure for nominating examiners for students?
18. How does your office track student progress?
19. How often is student progress monitored? And how is the information gathered?
20. Are there any postgraduate forums established in your faculty? What is the purpose of those forums?
21. What assistance is given to students who have problems with their supervisor/co-supervisor?
22. Who conducts postgraduate workshops in your faculty?
23. Do you think having a decentralised faculty research office benefit students? If 'yes' in what way; if 'no' please explain
24. With the functions and activities offered by the faculty research office, do you think the structures put in place in each faculty can carry out the needs of postgraduate students? Please explain your answer
25. Does your faculty research office have qualified, skilled or trained individuals to carry out research services in your faculty? Explain
26. What functions do the administrative staff in your office perform?
27. What qualification/s must staff in your office possess?
28. How is your office staffed?
29. How should your office be staffed?
30. Who do you report to?
31. Do you think your office is meeting staff and student expectations? Explain
32. Do you have adequate resources to provide the relevant services? Explain
33. What difficulties are faced by your office in terms of service delivery?
34. What are some of the contributions your office has made in terms of improving research in your faculty?
35. What are some of the steps your office has taken/initiated to streamline processes in your faculty?

36. What changes would you like to see that would enable you to provide better quality service to your faculty?
37. What changes would you like to see implemented regarding the structure of your office?
38. What changes would you like to see in the faculty to enable you to do your job?
39. Any comments.



**STRUCTURED INTERVIEWS FOR FACULTY RESEARCH OFFICER/ASSISTANT**

The purpose of the interviews is to collect data for the purposes of the MTech Corporate Administration research project titled: **staff and student perception of research structures and services provided by the Faculty Research Offices at a University of Technology.**

1. What is your job title? Do you think this title adequately describes your job?
2. How long have you been working in the Faculty Research Office (FRO)?
3. Are you permanently employed by DUT? If no, please explain.
4. What is your highest qualification?
5. What types of duties do you perform?
6. Who do you report to? How do you feel about this?
7. Is your office conveniently located in the faculty? Explain
8. What services does your FRO provide to postgraduate students?
9. In terms of your portfolio, what services do you provide to postgraduate students?
10. What services does your FRO provide to members of staff in your faculty?
11. In terms of your portfolio, what services do you provide to members of staff in your faculty?
12. Does your office assist with M and DTech registration? What services does your office provide in this regard?
13. Does your office deal with the appointment of supervisors and co-supervisors? What service/s does your office provide in this regard?
14. How are students informed of decision/s taken by the Faculty Research Committee (FRC) pertaining their Proposal?
15. How are students informed by your office of decisions taken by the Higher Degrees Committee (HDC) pertaining to their submissions

16. What structures/programs are put in place by your office to enhance research in your faculty?
17. What administrative support is offered by your FRO to M and D students in your faculty?
18. What administrative support is offered by your FRO to enhance research output in your faculty?
19. Please explain what research development programs if any, your FRO conducts or facilitates to assist students with their studies.
20. Please explain what workshops or programs if any, your FRO conducts or facilitates to assist staff to increase their research output?
21. How do you communicate the services provided to staff and students in your faculty?
22. When students encounter problems regarding research with other departments, what does your office do to assist them?
23. What services are mostly requested by students?
24. How best can your FRO streamline the services provided to postgraduate students?
25. How does your office track student progress?
26. How often is student progress monitored? And how is the information gathered?
27. What is the procedure for nominating examiners for students?
28. Are there any postgraduate forums established in your faculty? What is the purpose of those forums?
29. What assistance is given to students who have problems with their supervisor/co-supervisor?
30. Who conducts postgraduate workshops in your faculty?
31. Do you think having a decentralised Faculty Research Office benefit students? If 'yes' in what way; if 'no' please explain
32. What is the structure of your FRO?
33. Do you think that your FRO is adequately staffed to carry out your functions? Please explain.
34. Do you think that your FRO is adequately resourced to carry out your functions? Please explain.

35. Do you think that the services provided by your FRO are enhancing research in your faculty? Please explain.
36. What are some of the innovative practices that your FRO has put into place?
37. What are some of the triumphs experienced in terms of the services your office provides?
38. What difficulties or challenges do you experience in your faculty research office?
39. What can be done to improve services provided by your FRO?
40. What changes would you like to see happening in your FRO?
41. What do you think would enable you to provide better services to your faculty?