



Factors influencing the career progression of women in higher education: the case of the Durban University of Technology.

By

Mabel Awung

Student No: 21356955

**Submitted in partial fulfillment of the requirements for the degree of
Masters of Technology
in
Public Management
at the
Durban University of Technology**

Approved for final examination

**Supervisor: Prof. N. Dorasamy (Ph.D., M.P.A., Adv. Dip. Public
Administration, B.A. Hon., B. Paed. Arts.)**

Date-----

Co-supervisor: Prof Geoff Harris (PhD., M.Ec., Dip. Edu., Bcom.)

Date-----

DECLARATION

I, the undersigned, certify that:

- I am familiar with the rules regulating higher education qualifications at the Durban University of Technology, and understand the seriousness with which DUT will deal with violations of ethical practices in my research;
- Where I have used the work of others, to my knowledge, this has been correctly referenced in the bibliography. Any research of a similar nature that has been used in the development of my research project is also referenced.
- This project has not been submitted to any to any other educational institution for the purpose of a qualification.
- All subsidy-earning output (artifacts and publication) from postgraduate studies will be in accordance with the intellectual property policy of Durban University of Technology.
- Where Patents are developed under the supervision of the Durban University of Technology involving institutional expenditure, such patents will be regarded as joint property entitling the Durban University of Technology to its share, subject to the Durban University of Technology's policy on the Management and Commercialization of Intellectual Property;
- I understand that I am expected to publish an article based on my research result; and
- I understand that plagiarism is wrong; and incurs severe penalties.

I HEREBY DECLARE THAT THE ABOVE FACTS ARE CORRECT.

Signed _____

Date _____

DEDICATION

I dedicate this work to God almighty, my beloved husband Felix Awung, my mum and children for all their love and support.

ACKNOWLEDGEMENTS

This project would never have been realized without the benevolent and thorough supervision of Prof. N. Dorasamy. To her, I owe a million thanks. My gratitude also goes to our respondents (Career women at DUT), who were the subjects of this study for providing me with information and their cooperation. Also, I will like to thank the Directorates and management of the research committee for the scholarship that they gave me. Lastly, I will like to thank my family, friends, Deepak Singh, Sara-Bibi-Mitha, and Claire Spershott for their support in this project.

ABSTRACT

This study aimed to investigate the factors influencing the career progression of women in higher education in general and South Africa in particular, using the case study of the Durban University of Technology. Recent research has shown that even though women have made some progress as compared to where they were twenty years ago, the progress of women has proven to be resistant to change in terms of higher level and rewarding positions (Turner 2012; Hofmeyr and Mzobe 2012; Botool and Sajid 2013; Mouley, 2013). According to Boushey and Farrell (2013:6), this lack of progress results from a lack of flexibility and unpredictable scheduling at the workplace. Others argue that career interruption for childbirth and rearing; domestic responsibilities; gender parities at the work place; organizational structures; and policies that do not meet the needs of female employees affect career progress (Wallace and Smith 2011:3 and Tsoka 2010:6). The purpose of the study was, therefore, to examine the nature of the progress of women in higher education, and to identify factors influencing their progress. The study was conducted at the Durban University of Technology with a sample of 250 women from academic and administrative units the stratified random sampling technique was used, in which the target population at the DUT was grouped into different strata, and then the sample elements were selected from each of the groups.

The study used both quantitative and qualitative research designs (mixed method), whereby self-administered questionnaires were used to collect the data. The questionnaire consisted of open-ended and closed ended questions. The closed-ended questions were quantitative, while the open ended questions were qualitative. The closed-ended responses were then analysed using SPSS, while the open ended responses used the inductive approach to highlight the factors influencing the career progression of women in higher education, thereby leading to recommendations on policies which would enhance career progression of women in higher education.

The findings of the research revealed that women are still underrepresented in higher. It was recommended that management should improve working conditions for women and ensure that the effective monitoring and evaluation of the various policies in place.

TABLE OF CONTENTS

Declaration	i
Dedication	iii
Acknowledgements	iv
Abstract.....	v
Table of contents	vi
List of tables	xii
List of figures	xiii
List of acronyms and abbreviations	xiv
CHAPTER ONE.....	1
INTRODUCTION AND BACKGROUND.....	1
1. 1Statement of the problem	2
1.2 Aim of the study.....	4
1.3 Objectives of the study	4
1.4 Research questions	4
1.5 Significance of the study	5
1.6 Keywords and clarification of concepts	6
1.7.1 Career progress.....	6
1.7.2 Higher education.....	6
1.7.3 Employment equity.....	6
1.7.4 Management.....	7
1.7.5 Leadership.....	7
1.8 Research methodology.....	9
1.8.1 Research design.....	10
1.8.2 Target population.....	10
1.8.3 Sampling method.....	11
1.8.4 Measuring instrument.....	14
1.8.5 Recruitment process.....	14
1.8.6 Data collection method.....	14

1.8.7	Data analysis-----	15
1.8.8	Pre-testing-----	16
1.8.9	Delimitations/scope of the study-----	16
1.8.10	Scope of the study-----	16
1.8.11	Limitations of the study-----	16
1.8.12	Confidentiality and anonymity-----	17
1.8.13	Validity and reliability-----	18
1.8.14	Ethical consideration-----	18
1.9	Structure of the dissertation chapters-----	19
1.9.1	Chapter 1-Introduction and background-----	19
1.9.2	Chapter 2-Literature Review-----	19
1.9.3	Chapter 3-Research Methodology-----	19
1.9.4	Chapter 4-Research findings and data analysis-----	19
1.9.5	Chapter 5-Conclusions and recommendations-----	19
1.10	Conclusion-----	19
 CHAPTER TWO-----		20
LITERATURE REVIEW -----		20
2.1	Introduction-----	20
2.2	Management-----	20
2.2.1	Meaning of management-----	21
2.2.2	Functions of a manager-----	22
2.3	Levels of management-----	24
2.3.1	Public management and higher education-----	26
2.3.2	New public management-----	26
2.4	Purpose of higher education-----	28
2.4.1	Higher education as a public management function-----	29
2.5	Legislative framework-----	31
2.5.1	Higher education Acts-----	31
2.5.2	Basic Conditions of Employment Act, 75 of 1997-----	32
2.5.3	The Labour Relation Act, 66 of 1995 (LRA) -----	33
2.5.4	Employment Equity Act 55 of 1998-----	34
2.5.5	White paper on the Transformation of Higher Education in South Africa-----	35

2.6 Human resource management-----	36
2.7 Human resource management in higher education-----	38
2.7.1 Labor-employee relations-----	40
2.7.2 Recruitment-----	40
2.7.3 Professional development-----	41
2.7.4 Institutional benefits-----	42
2.7.5 Salary administration-----	42
2.7.5 Classification and compensation-----	42
2.7.6 System and technology-----	42
2.8 Women in employment-----	43
2.8.1 Women in employment in South Africa-----	44
2.9 Women in higher education-----	45
2.10 Factors that retard the progress of women-----	46
2.10.1 Glass ceiling-----	47
2.10.2 Lack of perceived role models for women-----	48
2.10.3 Frustrations with research-----	48
2.10.4 Work-life balance-----	48
2.10.5 Inflexibility and workload at the workplace-----	49
2.10.6 Negative stereotypes at the workplace-----	49
2.10.7 Institutional environment-----	49
2.10.8 Racism and bias in recruitment-----	51
2.10.9 Culture and tradition-----	52
2.10.10 Discrimination at the workplace-----	53
2.10.11 Lack of confidence-----	54
2.10.12 Difficulties for women managers-----	55
2.10.13 Insufficient policies and programs to address gender issues-----	55
2.11 Factors that promote the progress of women-----	56
2.12 Gaps in literature-----	57
2.13. Feminist perspectives-----	57
2.13.1 Liberal feminism-----	58
2.13.2 Socialist or Marxist feminism-----	58
2.13.3 Radical feminism-----	59
2.14 Gaps in feminist views-----	59
2.15 Challenges facing gender equity-----	60

2.16 Conclusion-----	62
----------------------	----

CHAPTER THREE-----	63
RESEARCH METHODOLOGY-----	63
3.1 Introduction-----	63
3.2 Aim of the study-----	63
3.2.1 Objectives of the study-----	63
3.3 Research questions-----	63
3.4 Research design-----	63
3.4.1 Exploratory study-----	64
3.4.2 Descriptive study-----	64
3.4.3 Casual study-----	64
3.5 Target population-----	66
3.6 Sampling method-----	67
3.6.1 Sample size of the study-----	67
3.7 Data collection method-----	70
3.8.1 Questionnaire format-----	73
3.8.2 Distribution of questionnaires-----	73
3.9 Recruitment process-----	75
3.10 Measuring instrument-----	76
3.10.1 Nominal scale-----	76
3.10.2 Ordinal scale-----	76
3.10.3 Likert scale-----	76
3.11 Data analysis-----	77
3.11.1 Quantitative data analysis-----	77
3.11.2 Qualitative data analysis-----	78
3.12 Pre-testing-----	79
3.13 Delimitations/scope of the study-----	79
3.14 Limitations of the study-----	79
3.15 Confidentiality and anonymity-----	80
3.16 Validity -----	81
3.16.1 Criterion validity-----	81
3.16.2 Content validity-----	81

3.16.3 Construct validity-----	81
3.17 Reliability-----	82
3.18 Ethical consideration-----	83
3.19 Conclusion-----	84

CHAPTER FOUR-----85

DATA ANALYSIS-----85

4.1. Introduction-----	85
4.2. The sample -----	85
4.3 The research instrument-----	85
4.4. Reliability statistics-----	86
4.5 Factor Analysis-----	86
4.8 Section A- Biographical data-----	91
4.9 Section analysis-----	96
4.10 Section B- Perceptions of career progress of women at DUT-----	96
4.11 Section-C Policies and career motivation at DUT-----	99
4.12 Section D- Factors Affecting/ impeding the progress of women at DUT-----	102
4.14 Section E- General comment/suggestion-----	111
4.15 Correlations-----	111
4.16 Hypothesis Testing-----	111
4.17. Conclusion-----	112
4.18 References-----	133

CHAPTER FIVE-----113

SUMMARY, RECOMMENDATION ANF CONCLUSION-----113

5.1 Introduction-----	113
5.2 Summary of the findings-----	113
5.3 Recommendations-----	115
5.4 Recommendations to the management of DUT-----	116
5.5 Recommendation to all career women-----	116
5.6 Conclusion-----	118

LIST OF TABLES	12
Table 1.1: Academic and Administrative staff sampling method.....	12
Table 2.2.1: Distribution of questionnaires in various faculties.....	74
Table 2.2.2: Distribution of questionnaires in various support departments.....	75
Table 2.2.3: Work profile of employees.....	69
Table 3.1: Academic and administrative staff sampling method.....	68
Table 4.1: Cronbach's Alpha score	86
Table 4.2: KMO and Bartlett's Test.....	87
Table 4.3: Component Matrix.....	88
Table 4.4: KMO and Bartlett's Test.....	88
Table 4.5: Rotated component matrix.....	89
Table 4.6: KMO and Bartlett's Test.....	89
Table 4.7: Rotated component matrix	89
Table 4.8: Highest academic qualification.....	97
Table 4.9: Career progress should be based on.....	99
Table 4.10: The scoring patterns for the perceptions of career progression.....	103
Table 4.11: Test statistic.....	101
Table 4.12: Policies and career motivation.....	102
Table 4.13: The chi square test statistic.....	105
Table 4.14: The lack of progress of women can be attributed to.....	107
Table 4.15: The chi square test statistic.....	111

LIST OF FIGURES

Figure 2.1 Human resource management functions-----	37
Figure4.1: Faculty distribution-----	93
Figure 4.2: Age profile of respondents -----	94
Figure 4.3: Marital status of respondents -----	95
Figure 4.4: Traveling time to work-----	96
Figure 4.5: The number of years that respondent has been employed-----	97
Figure 4.6: Duration of respondent's employment at DUT-----	98
Figure 4.7: The scoring patterns of the perceptions of career progress-----	100
Figure 4.8: Policies and career motivation-----	103

LIST OF ACRONYMS AND ABBREVIATIONS

- **DUT:** Durban University of Technology
- **S A:** South Africa
- **KMO:** Kaiser-Meyer-Oikin
- **LRA:** Labour Related Act

CHAPTER ONE

INTRUDUCTION AND BACKGROUND

In the past, paid work was predominantly the sphere of men. However, the situation has changed drastically in today's society. The number of women pursuing managerial and professional careers has increased in comparison to the past (Jha and Jha 2013:14). Women have succeeded in questioning the traditional notions about sex roles and cultural expectations. This prompted institutions worldwide to make it a priority to come up with policies that eliminate all gender stereotyping at the work place (Stromquist 2013:5). In the case of South Africa, for instance, an important breakthrough was made in 1996 with the Bill of Rights guaranteeing all citizens equal treatment. The Basic Conditions of Employment Act No 75 of 1997 (BCEA) was also introduced to enhance the position of women in workplaces. Also, the declaration of this Act (Basic Conditions of Employment Act No 75 of 1997 (BCEA) by the government South Africa 1997 was aimed to advance economic development and social justice by regulating the right to fair labour practices such as work time, leave, employment and remuneration, termination of employment and variation of basic conditions of employment for all employees and employers. Moreover, Affirmative Action was introduced through the Employment Equity Act No 55 of (South Africa 1998) to ensure that employment and promotion of black people, women and people with disabilities should be equal in the work place. In addition, to those policies, the Broad Based Black Economic Empowerment Act (2003) and the Labour Relations Act (1995) were introduced to redress the past injustice of colonialism and apartheid that discriminated against blacks, coloureds and disabled people especially women.

Besides having these policies, the Commission for Employment Equity Act (1998) was created in the same period to monitor the implementation of Affirmative Action policies and transformation in the workplace in terms of race, gender and disability. South Africa is making significant efforts to ensure that gender equality is achieved at all levels. It is also signatory to five international conventions and agreements relating to gender equality, which are; The United Nations Convention on the Elimination of all Forms of Discrimination against Women; The Protocol to the African Charter on Human and Peoples' Rights of women in Africa; The SADC

Gender and Development Protocol; The Beijing Platform for Action and The UN Millennium Development Goals. The overall goal was to address issues of equality, empowerment and the reduction of gender based violence in South Africa.

Considering the number of reports and policies in place, it is expected that women would be proportionately represented at the top of the organizational hierarchy in the work place. This is, however, not the case when we look at the progress of women in senior and management positions in both public and private sectors organizations (Homeryr and Mzobe 2011:1). They believe that organizational structures and systems are the cause of this problem. According to Moodie (2010:2), women in higher education in South Africa do not advance to the same level as men, especially at senior level. This is mainly as a result of pervasive patriarchal attitudes, the lingering effects of apartheid and women's child-bearing responsibilities. On the other hand, Tsoka (2010:4-6) also argues that few women advance to top academic and managerial leadership positions as a result of prejudice at the work place, a lack of assertiveness and mentorship, socio-cultural perception and societal values that continue to oppress women.

The lack of progress of women is not peculiar to South Africa, but also features internationally. The 2012 Grant Thornton Report shows that few women are advancing to senior management positions in organizations. The report indicates that in 2004, the percentage of women in senior management positions were 19%; in 2007 it had improved to 24%; in 2009 it remained constant at 24%; while in 2011 it dropped to 20% and finally, in 2012 it increased to 21%. Given this picture, it is worth stating that more issues have to be addressed to improve the progress of women. This implies that more research needs to be conducted and more policies implemented in order for there to be significant improvement in the career progression of women.

With the case study of the Durban University of Technology, this study examines the factors influencing the career progression of women within the higher education. It also analyses DUT's current policies in relation to staff development, employment equity, appointment and promotion of staff at the university, and how these policies affect the progress of women at the university. It is important to note that the Durban

University of Technology recognises the Affirmative Action and Employment Equity Legislation of South Africa as an important part of transformation from apartheid. It therefore commits itself to transform and eradicate this discriminatory past by setting up a constitution to ensure that the Employment Equity Act No 55 of 1998 achieves its goal (Durban University of Technology Employment Equity policy 2007:2-3).

The Durban University of Technology Employment Equity policy (2007:2-3) addresses the issues of equity in the workplace; overcoming discrimination through training and development; ensuring that employment equity becomes integral to strategic staff development; and ensuring that DUT achieves realistic targets. The policy also provides for specific strategies and measures to be implemented to achieve equity amongst designated groups (Africans, Coloureds, Indians, women and persons with disabilities) in the areas of recruitment, remuneration/benefits, work evaluations and promotions amongst others, in accordance with the University's employment equity plan.

Apart from the Employment Equity policy, the Durban University of Technology also has a sexual harassment policy for the well-being of its staff. It commit to providing a safe and secure environment free of sexual harassment for all members of the DUT community. The purpose of this policy is to preserve the fundamental rights, dignity, integrity and privacy of all individuals and does not tolerate any threat or act that directly or indirectly interferes with an individual's performance at work (Durban University of Technology Sexual Harassment policy 2007:2). It also has the Gender Forum at the institution that is responsible for women's issues.

However, the question that arises is whether these policies are adequate to promote the progress of women in their careers, and whether they are well implemented and monitored. The findings of this research will contribute in recommending policies which would enhance the career progression of women in higher education.

1.1 Problem statement

The representation of women in leadership positions in higher education is low. Research has shown that many working women within higher education institutions

remain in middle management roles rather than senior management positions, despite the policies and structures in place to help fight gender imbalance (Tsoka 2012; Hofmeyr and Ndobe 2012; Harris and Leberman 2012, Marshall 2009, Yinhan, Qi and Kai 2013). This implies that there are possibilities that others have not been properly addressed. Therefore, the researcher believes that if more research is conducted, there could possibly be an improvement in the career progression of women.

1.2 Aim and objectives of the study

The purpose of this study is to examine the factors influencing the career progression of women in higher education, especially at DUT.

1.3 The objectives of this study are:

- To examine the career progression of women in higher education from local and international perspectives;
- To investigate the perceptions of female staff at DUT concerning the factors that promote or retard the progress of women;
- To analyze DUT's current policies in relation to staff development, employment equity, appointment and promotion of staff at the university, and how these policies affect the progress of women at the university; and
- To recommend policies which would enhance the career progression of women in higher education.

1.4 Research questions

- What is the experience of career progression of women in higher education from national and international perspectives?
- What are the perceptions of a sample of female staff at DUT regarding their own progress?

- What are the policies in place to support women in higher education in general, and at DUT in particular, and how do these policies contribute to the career progression of women?
- What additional factors can be considered when formulating policies to support the career progression of women at the Durban University of Technology in particular and higher education in general?

1.5 Significance of the study

Research has shown that even though institutions worldwide have developed various policies to help alleviate the challenges that career women face in their professions, these policies are not sufficient to redress the situation (Boushey and Farrell 2013; Coward 2010; Riodan and Louw-Potgieter 2011; and Stromquist 2013). According to Moorosi (2010:3), there are not enough policies to address the stereotypes and restrain practices of discrimination suffered by women in the work place. This implies that attempts at improving women's progress have not achieved significant results as most women still do not rise to or occupy top positions. Citing the case of the Durban University of Technology, the DUT Employment Equity policy (2007:5) states that “ *the immediate aim of the University is to ensure the development of a critical mass of Black staff in particular, the primary target group of Africans and Coloreds with an equitable representation of women and people with disabilities, at all categories and levels*”. It also puts emphasis on attempts to overcome barriers to equity.

However, according to the DUT Department of Labor workforce profile (2013:3) statistics, the occupational levels of male and female shows that the number of females in Top management is 2 while males are 2; in senior management position the number of females is 4 while males are 14; in professionally qualified and experienced specialists and mid-management, the number of females is 278 while males are 322. Lastly, in skilled technical and academically qualified workers, junior management, supervisors, foremen and superintendents, the number of females is 354, while males are 265. This may be as a result of an initial imbalance in the University's employment intake. This implies that the progress of women as compared to their male counterparts is not at the same level, implying that the policy

is not achieving its objectives. The higher the position, the fewer the women, while the lower the position the more women we find. This study therefore seeks to identify factors hindering the career progression of women at DUT and women in general, so that steps may be taken to address them. Secondly, the study will contribute towards raising awareness amongst policy makers for the inclusion of gender considerations when assessing the progress of women in the work place in general, and higher education in particular. Lastly, this study will serve as additional input for other researchers who may want to undertake further research on a similar problem.

1.6 Keywords and clarification of concepts

1.6.1 Career Progression

Career progression can be viewed in different ways. In this study the term is used to refer to what women have accomplished in their career such as promotion, accomplishment and the positions women occupy in organizations.

1.6.2 Higher education

Although the definition of higher education varies from country to country, the chosen definition for this research is: higher education specifically refers to post-secondary institutions such as universities or colleges that offer qualifications such as National Diplomas, first Degrees, Honors degrees, Masters Degrees and Doctorates. In the South Africa context, higher education refers to all learning programs leading to qualifications greater than grade 12 or which is equivalent to the National Qualifications Framework, as expected by the South African Qualifications Authority Act (Act No. 58 of 1995). Study can be full-time, part-time or by distance learning. This study seeks to find out how women have made progress in these institutions. It looks at the factors influencing the career progression of women in higher education, especially at DUT.

1.6.3 Employment equity

According to Hunter (2012:315), “equity in the workplace refers to the perceptions that employees have about the extent to which they are treated fairly by their supervisors and managers, especially with regard to disciplinary action; the type of work they are allocated; the pay and benefits they receive; and the way the managers and supervisors relate to their subordinates”. The DUT Employment Equity policy (2007:3) refers to employment equity as “*both the elimination of discrimination and specific measures to accelerate the advancement of people from designated groups*”.

1.6.4 Management

The word management refers to the tasks and activities involved in managing an organization such as planning, organizing, leading, and controlling of people, a department or an organization (Kosnarova 2014:2). In this study, these functions apply to university management.

1.6.5 Leadership

It is certain that every society or institution will always need leaders; it doesn't matter whether it is in the political, social or religious arena. In this study, the researcher aims to investigate why most women do not occupy top and senior leadership positions in the higher education context. However, in order to better understand the why, it is important to know what leaders are. According to AllAfrica.com (2013), a leader “should have many qualities, such as the ability to inspire confidence, good communication skills and leadership experience”. In the same light, John (2013:6) notes that leadership is an approach that creates but does not demand enthusiasm, loyalty and respect. He believes leadership is the most important secret to increasing an organization's productivity, morale, profit, and results. A strong leader is a person who can make people to be willing to contribute fully in the team even when people do not agree with the direction an organization is taking.

1.7 Research methodology

1.7.1 Research design

According to Creswell (2008:3), “research designs are plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collection”. The method that was used in this study was the mixed method. Mixed methods research, according to Johnson (2007:123) cited in Norman and Lincoln (2013:132), is the type of research in which a researcher or a team of researchers combines elements of qualitative and quantitative research approaches for the broader purposes of breadth and depth of understanding and corroboration.

This study is descriptive in nature and a case study method has been used. A case study, according to Yin (2009) cited in Sekaran and Bougie (2013:103), is an empirical investigation of a particular contemporary phenomenon within its real-life context. A case study was chosen because it was found to be suitable to the researchers to examine a particular instance in a great deal of depth, rather than looking at multiple instances rapidly (Rule and John 2011:7). It is in this regard that, instead of examining the progress of women in all the universities in South Africa, this study will focus on DUT as a case study. Questionnaires were used to collect data from different faculties and units, specifically self-administered questionnaires. The questionnaires consisted of open ended and closed-ended questions. The questionnaires had a covering letter explaining the reasons for the research. Data was then analyzed and conclusion and recommendations were made.

1.7.2 Target population

According to Gerard (2013:76), the term “population” in social science refers to the units of interest to the research. In this case, the population comprised all women at the Durban University of Technology. The target population consisted of female academic (Instructional/Research Professional) and administrative staff (Non-instructional staff). Support staff was not included in the study (securities, cleaners and maintenance). The total number of female academic and administrative staff at the Durban University of Technology is 693, according to Human Resource statistics (2013:103). The sample size for the study is 250, based on Sekaran and Bougie’s (2013:264) method of determining sample size for a given population. There are four aspects that were considered before making this decision. These are precision,

confidence, variability in the population and cost consideration (Sekaran and Bougie 2013:264). This sample size increases the possibility of producing more reliable results. According to Sekaran and Bougie (2013:243), a target population is necessary because it is not easy to collect data from the entire population and this also helps to reduce fatigue and errors.

1.7.3 Sampling method

The probability sampling technique was utilized for this study. According to Sekaran and Bougie (2013:254), probability sampling is when all the elements (i.e. each person) in the population have an equal chance of being chosen as a subject. The fact that each subject had an equal opportunity of being chosen without any kind of bias from the various groups gives a high generalizability to the findings. A stratified random sampling procedure was used to group the population into the academic and administrative groups and a random sample was taken from each stratum. Tracing the parameters of different subgroups within a population would not be possible without stratified random sampling procedures (Sekaran and Bougie 2013:249). The stratified random sampling technique is a method whereby the population is first divided into common selected groups that are relevant, appropriate and meaningful in the context of the study. In other words, it involves stratifying the elements along meaningful levels and strata (Sekaran and Bougie 2013:249-250). For example, in this study, the women in academic and administration were divided into seven categories namely Instructional/ Research Professional (academic); then Executive/ Administrative/ Managerial Professional; specialized/Support Professional; Technical Staff; Non-Professional Administrative; Crafts/Trade and Service staff (administrative staff). Members were drawn randomly from each of the group or strata using the simple random sampling technique. The subjects that were drawn from each group or strata were proportionate to the total number of females in that stratum.

The sample size for the study was 250 out of a target population of 693. The researcher chose a sample size of 250 based on the generalized scientific guideline for sample size decision by Sekaran and Bougie (2013:270) which states that “the sample size is determined by the level of precision and confidence desired in

estimating the population parameters, as well as the variability in the population itself and the cost-benefit". Precision refers to how closely we estimate the population parameter based on the sample statistic, while confidence denotes how certain the estimates will really hold true to the population (Sekaran and Bougie 2013:261-262). This implies that the researcher's confidence level in estimating the population parameters held true based on the target population. The table below further demonstrates how samples were selected.

Table 1
Academic and Administrative staff sampling method (according to DUT Human Resource statistics)

Academic staff			
Occupational category	Female	Proportionate sampling (40% of the element was taken)	Sample drawn
Instructional/Research Professional	271		100
ADMINISTRATIVE STAFF			
Occupational categories	Female	Proportionate sampling: (40% of the group was taken)	Sample drawn
Executive/ administrative/ Managerial Professional	8		2
Specialized/ Support Professional			

	76		25
Technical Staff	49		15
Non-Professional Administration	273		103
Service Staff	16		5
Total number of administrative (Non-Instructional staff).	422		150
Total number of academic and administrative staff.	693		250

Table 1 shows that out of 271 female academic staff, 100 women were sampled, while 150 women out of 422 were sampled from the administrative staff. The subjects were drawn from each stratum were drawn using the proportionate stratified random sampling procedure. According to Daniel (2012:12), proportionate stratified sampling is when the number of elements allocated to the various strata is proportionate to the representation of the strata in the target population; this means that the size of the sample drawn from each was proportionate to the relative size of that stratum in the target population. It was in this context that the researcher believed this method would be more suitable and representative for the study.

Furthermore, 300 questionnaires were distributed in order to get the actual sample size of 250. These questionnaires were distributed to the 6 faculties and 6 units/support departments at the Durban University of Technology. A total of 170 questionnaires were given to the six faculties, while 130 questionnaires were distributed to the six units or departments as well. The researcher visited each faculty and unit, and then randomly distributed in the various numbers of questionnaires to the different departments under those faculties and units. The decision on how many questionnaires to be given to each faculty and unit was disproportionate. According to Sekaran and Bougie (2013:250), “disproportionate stratified random sampling decisions are made when some strata or stratum are too small or large or when there is more variability suspected within a particular stratum”.

As mentioned earlier, this method was used because the researcher believed that it was more suitable and representative for the study, since all the female staff in each of the faculties and units/ support departments were not the same in terms of numbers. Therefore, some faculties and units were given more questionnaires than the others.

1.7.4 Measuring instrument

The measuring instrument used in this study was a questionnaire. A self-administered questionnaire comprising of open-ended and closed-ended questions was used to help in the evaluation of the issues. The questionnaire had 3 different types of scaling; Nominal scale, ordinal scale and Likert scale. According to Sekaran and Bougie (2013:211), a scale is a tool or instrument by which individuals are distinguished as to how they differ from one another on the variables of interest in a study.

1.7.5 Recruitment process

The respondents were personally approached with a letter that explained the purpose of the study. It also included the researcher's details, a letter of informed consent to be signed by the participants, as well as proof of ethical consideration.

1.7.6 Data collection method

A survey specifically a self-administered questionnaire was used for data collection. A questionnaire is a reformulated written set of questions to which respondents record their answers, usually within closely defined alternatives (Sekaran and Bougie 2013:147). A self-administered questionnaire was chosen because it establishes an understanding and motivates respondents to answer the questions, since doubts can be clarified. It is also less expensive when administered to groups of respondents; almost 100% response rate is ensured; and, lastly, anonymity of respondents is high (Sekaran and Bougie 2013:148). The questionnaires comprised of open-ended and closed-ended questions in order to obtain appropriate information. With the open-

ended questions, the respondents were asked to fill in or to complete the blank spaces in the questionnaire.

The main aim of using open-ended questions was to enable the respondents to freely express themselves. In the case of the closed-ended questions, the respondents were asked to select an answer from the list provided. This provided a greater uniformity of responses that was easier to process. The questions were clear and easy to complete. The questions were structured based on achieving its objectives. The procedure used for data collecting was as follows: the researcher started by introducing herself to the participant and stating the purpose of the research and its significance to them. The respondents who were willing to participate were given the questionnaires to fill in. After a few days the questionnaires were collected based on the various appointments that were made by the respondents. All questions were in English and were answered in English.

1.7.7 Data analysis

The study used both quantitative and qualitative data analysis. Qualitative studies put emphasis on the qualities of entities, processes and meanings that are not experimentally examined or measured while quantitative studies emphasize the measurement and analysis of fundamental relationships between variables (Norman and Lincoln 2013). In other words, qualitative research is non-numerical. It is usually in the form of written words or video tapes, audio tapes and photographs. In contrast, quantitative research uses numbers as data and analyzes these using statistical techniques (Virginia and Clarke 2013:4). Quantitative data was analyzed statistically as follows: all the information relevant to the study objectives was identified, followed by the allocation of a code and column to each variable. After identifying these variables, a code book was produced and code errors were checked before the final entering into SPSS. SPSS, according to Babbie, Halley, Wagner and Zaino (2012: 4), stands for “statistical product and service solutions” and it is the most widely used statistical package for the social and behavioral sciences. Field (2009:19), further explained that “SPSS is a Windows based program that can be used to perform data entry and analysis and to create tables and graphs”. After the data was entered, frequency distribution tables, a histogram and bar charts were used for all the

variables. Appropriate descriptive statistics were calculated, followed by the necessary cross- tabulation/ arrangement dictated by the objectives of the study.

In terms of the qualitative approach, the method of collecting data was through open-ended questions. The method used to analyze the data was the thematic method. The thematic method is a method for identifying themes and patterns of meaning across a data set in relation to a research question (Braun and Clarke 2013:174). For instance, the researcher started by going through the data; then sorting data into different categories based on the common themes identified from the participants' responses. The different types of responses that were found were noted down on separate sheets of paper. After noting them down, the researcher separated the data into groups or themes that share similar characteristics. The process with the larger categories and then proceeded to smaller ones. Finally, the interpretation and explanation were inductive, whereby the analyses were shaped by the researcher's standpoint, disciplinary knowledge and epistemology (Braun and Clarke 2013:174). Both the quantitative and qualitative data was transformed using SPSS in order to determine the outcome of the findings.

1.7.8 Pre-testing

A pre-test was used to find out if the survey would work at the end or whether there would be a problem that would need to be addressed before conducting the research proper. Pre-testing was also intended to help in knowing whether the respondents would hesitate in answering, ask for clarification, suggest a different word; as well as knowing the amount of time they would use in completing the questionnaires. Ten questionnaires were given to women in the academic and administrative categories using the stratified sampling technique for a sample size of 10. The questionnaires were distributed to the participants randomly in all faculties and units of the Durban University of Technology. After collecting the feedback, the 10 questionnaires were then revised before the actual data collection process started. The sample for the pre-test was not used as part of the research sample.

1.7.9 Delimitations/scope of the study

Participants in this study were delimited to academic and administrative staff at the Durban University of Technology and the study was carried out at all DUT campuses. Male staff and support staff were excluded from the study. Furthermore, the study was delimited to examine the career progression of women in terms of higher positions. Finally, the study sampled 250 women with the assumption that the results would be reflective of the general situation of the women in the institution.

1.7.10 Scope of the study

The Durban University of Technology was formed as a result of the merger in April 2002 of two prestigious technikons, ML Sultan and Technikon Natal. It was named the Durban Institute of Technology and later became the Durban University of Technology in line with the rest of the universities of technology (DUT Website, 2006:16). The Durban University of Technology is a growing institution, striving to meet the needs of the nation through quality teaching and learning and by ensuring that its academic staff possesses the highest possible qualifications that they can obtain. The Durban University of Technology is a member of the International Association of Universities. It is a multi-campus university of technology at the cutting edge of higher education, technological training and research. The university aspires to be a “preferred university for developing leadership in technology and productive citizenship”, and to “making knowledge useful” (DUT Website, 2006:16). The Durban University of Technology has six campuses; namely M L Sultan campus, Ritson Campus, Steve Biko Campus, River Campus and Indumiso campus and Brickfield Campus. It is worth mentioning that this research was conducted in these campuses. The scope of the study is important because it helps the reader to have a brief historical background of the area that was investigated.

1.7.11 Limitations of the study

The limitation of this study was that the population under study was female academic and administrative staff only. The study did not include male and support staff viewpoint which is required in a broader study on the same topic. Secondly, the fact

that the study was limited to the Durban University of Technology means that, the results can only describe the career progression of women at the DUT and no other institution. The fact that only a sample of 250 out of 693 women in academic and administrative staff (Human Resource statistic 2013:3) was used implies that a bigger sample of this same study may provide a comprehensive result of women's progress at DUT. Lastly, the results of the findings were limited to the period in which the study was conducted.

1.7.12 Confidentiality and anonymity

According to Henn, Weinstein and Foard (2009:94), confidentiality refer to how the researcher holds the data in confidence and keeps it from public consumption while anonymity refers to the precautions taken to protect the identity of the subjects. In that case, participants who agreed to fill in the questionnaires were assured of the confidentiality and anonymity of the research. No names were required in the questionnaires or mentioned when analysing the data. The answered questionnaires were kept in a secure place and will be there for a period of 15 years. Thereafter, it will be destroyed. The research was only for academic purposes and the reports were kept in the department and the library.

1.7.13 Validity and reliability

Validity and reliability are elements that determine the quality of our measurement instrument. An indicator is said to be valid if it adequately measures the underlying concept, while reliability measures the consistency in measurement (Treiman 2009: 243). To confirm the accuracy of the instrument and to ensure the validity and reliability of the study, a pre-testing was conducted with 10 women from the academic and administrative staff only. This was to help estimate how reliably the instrument would measure the same subject under the same condition. In order for the study to be reliable, the questions were constructed properly to ensure easy understanding.

Moreover, pre-testing also ensured validity based on the conclusion of the respondents. The fact that more than 90% responded positively to the questions indicates that the study was valid. Also, to ensure validity, the purpose, objectives and design of the research was clearly defined. The sample size of the study is also an indication that the study was valid.

1.7.14 Ethical consideration:

The rights of human subjects and their freedom were taken into account. Their confidentiality, anonymity, privacy and voluntary participation were clearly explained to them in the letter of informed consent before the research was conducted. As such, no names of any sort were required in the questionnaires. Respondents who failed to answer the questionnaires or was not willing to participate in the research was not forced to do so. No harm was incurred. Ethical approval was sought as per DUT's research protocol.

1.8 Structure of the dissertation chapters

Chapter 1- Introduction

Chapter one focuses on the background to the study, delimitation of the study, the research problems and aims, the research questions and their significance to the study. It also defines the key words and then clarifies them.

Chapter 2- Literature Review

Chapter two covers a review of the literature that exists in the field, as well as the gaps in the research that are identified by the study.

Chapter 3- Research methodology

Chapter three presents the research methodology and the reasons for the choice of research design.

Chapter 4- Research findings and data analysis

Chapter four focuses on data analysis and the interpretation of the research findings.

Chapter 5- Conclusions and recommendations

This chapter presents the conclusion and recommendations. It also suggests possible areas for future studies.

1.9 Conclusion

This chapter described the nature of information and the type of research activities that can be seen in the study. The next chapter reviews existing literature that exists in the field, as well as the gaps in the research that are identified by the study.

CHAPTER TWO

WOMEN IN MANAGEMENT

2.1 Introduction

Recent evidence from research has shown that the progress of women in top positions at the workplace and higher education, in particular, is very slow (Bruckmuller, Ryan, Rink and Haslam 2014; Gabriela, Dan and Antonia 2013; Morley 2014; Johansson and Sliwa 2014; Riberro, Bosch and Becker 2013). This has been an issue of concern for the past two decades and both governments and institutions worldwide have developed various policies to help improve the challenges that career women face in their professions. However, with these efforts in place, most women still dominate the middle and lower positions in the workplace (Boushey and Farrell 2013; Coward 2010; Riodan and Louw-Potgieter 2011; Stromquist 2013; and Tsoka 2012). This implies that efforts at improving women's progress have not achieved significant results as most women still do not occupy top positions. This could mean that policies are not achieving their objectives.

This chapter highlights what other researchers have said about the progress of women; the factors that promote or retard the progress of women; and the various policies in place to enhance the progress of women in the workplace at large and higher education in particular.

2.2 Management

In order to understand the progress of women in general and higher education in particular, it is important to first explain what management is all about; what managers do; the various levels of management; and the positions of women in management. This section will help to give a general idea about management and how it operates. It will also help to understand the various roles that managers perform in an organization and determine the nature of managerial duties (Dominici, Fried and Zegar 2009:2).

2.2.1 Meaning of management

The term management does not have a specific definition. It is commonly used to refer to the duties performed by managers. According to Kosnarova (2014:2), management can refer to “the tasks and activities involved in managing an organization such as planning, organizing, leading, and controlling”. In the same light, Kinicki and Williams (2013:5) define management as “*the pursuit of organizational goals efficiently and effectively by integrating the work of people through planning, organizing, leading, and controlling the organization’s resources*”. There are three historical viewpoints of management. These are the classical the behavioural and the quantitative viewpoints (Kinicki and Williams 2013:42).

- **The Classical viewpoint**

According to Kinicki and Williams (2013:42), the classical viewpoint originated during the early 1900s to emphasize ways to manage work more efficiently. In the early 20th century, the demand for labour was in short supply and managers were pushed to raise the productivity of workers. As a result, they had two approaches: scientific management and administrative management. The two of the main advocates of scientific management were Frederick W. Taylor and the team of Frank and Lilian Gilbreth (Kinicki and Williams 2013:42). Scientific management put emphasis on the scientific study of work methods to improve the output of individual workers, while administrative management was concerned with managing the total organization. Supporters of administrative management were Henri Fayol and Max Weber (Kinicki and Williams 2013:43).

- **The Behavioural viewpoint**

According to Kinicki and Williams (2013:43), the behavioural viewpoint emphasises on the importance of understanding human behaviour and motivating and encouraging employees toward achievement. Proponents of early behaviourist theorist were Hugh Munsterberg, Mary Parker Follett and Elton Mayo. Besides the early behaviourist proponent viewpoint, Abraham Maslow and Douglas McGregor also came up with the human relations movement. The aim of this movement was to propose better human relations in order to increase workers’ productivity.

Furthermore, we have the behavioural science approach that relies on scientific research for developing theory to provide practical management tools.

- **The Quantitative approach**

The third and last category under contemporary perspectives is the quantitative viewpoint. The quantitative to management perspective emphasizes the application of quantitative techniques (Kinicki and Williams 2013:52). According to Kinicki and Williams (2013:52), there are two approaches to quantitative management: management science and operations management. Management science focuses on using mathematics to assist in problem solving and decision-making, while operations management focuses on managing the production and delivery of an organization's products or services more efficiently.

From the aforementioned, one can conclude that the three historical viewpoints of management were all based on improving the productivity of individual workers; problem solving; decision-making; and delivery of an organization's product or services more efficiently (Kinicki and Williams 2013:52).

2.2.2 Functions of a manager

There are four basic tasks that a manager must accomplish, namely planning, organizing, leading, and controlling. The amount of time a manager spends on each task depends on the level of that particular job. However, it is important to explain how managers do their jobs so as to understand leadership positions. This is very important in this research because it would give a better understanding as to whether leadership positions are tedious or meant just for men (Nkomo and Ngambi 2009:6). The researcher is interested in the career progression of women at the Durban University of Technology. Therefore it is important to understand what management staff does.

In the past, professional learning in many institutions was carried out without knowing exactly what they hoped to accomplish at the end of the year. As a result, they used to lack purpose, cohesiveness and direction. Without a specific purpose to

guide their experiences, managers often used to be more concerned with what pleases them than with what works to improve students' learning (Guskey 2014:3). So, for an organization or institution to function well, the manager's first task is supposed to be planning. "*Planning in this way is like choosing the direction for a journey before deciding on the destination*" (Guskey 2014:3). According to Jugovic (2014:21), planning adjusts and explains pre-planned tasks that need to be carried out in the future, including the necessary activities and means that must be used to achieve optimal objectives and appropriate results.

There are three main reasons why managers plan; Firstly, to establish an overall direction for the organization's future; secondly, to identify and commit the organization's resources to achieving its goals; and lastly, to decide which task must be done to reach those goals (Jugovic 2014:21). Hirsh (2012) cited in Guskey (2014:4) notes that when it comes to planning professional learning, planning should be backward, beginning from end and then working towards the processes that will be beneficial to the students. This is because the primary goal of every institution is to improve on the students learning outcomes.

The second task of managers is organizing. After they have set –up plans, the next step is to put those ideas into reality. Organizing is a method of creating a structure of relationships that will enable employees to carry out management's plan and meet organizational goals (Carpenter, Bauer and Erdogan 2013:2). Carpenter, Bauer and Erdogan (2013:2) stated that, "organizing at the level of the organization involves deciding how best to departmentalize, or cluster jobs into departments to coordinate efforts effectively". They further explain that organizing involves creating a structure by setting up departments and job descriptions so that optimized performance is obtained from the available resources.

The third function of a manager is leading. After managers have made plans, created a structure and then hired the right personnel, the next step is for someone to lead the organization. According to Hellrigel, Jackson, Staude, Amos, Klopper, Loum and Osthuizen (2006: 10), "*leading involves communicating with and motivating others to perform the tasks necessary to achieve the organization's goals within the context of a supporting organizational culture*". According to Kinicki and Williams (2013:16), leading is define as motivating, directing, and otherwise influencing people to work

hard to achieve organizational goals. A leader in the university must inspire faculty, staff, students and residents of the surrounding community to help realize the college goals (Kinicki and Williams 2013:16).

According to Certo and Certo (2009:123), controlling is a set of activities that make something happen as planned and it is an ongoing process. For instance, managers are supposed to continually gather information that measures recent performance within the organization and make their comparisons. Then, from the comparison, they determine whether the organization should be modified to meet pre-established standard (Certo and Certo 2009:33). Kinicki and Williams (2013:16) define controlling as “monitoring performance, comparing performance with goals, and taking corrective actions as needed”. In higher education, the university administrators control the progress of all staff; department budget; the quality of instruction; and the kind of courses offered.

2.3 Levels of management

Levels of management depend on the size of the organization. In a small organization, there is often only one level of management. As organizations grow, more levels of management are required. Basically, there are three levels of management in most big organizations, which are top managers, middle managers and first-line managers (Certo and Certo (2009:123). These levels of management will be explained briefly in order to understand who is in charge of what role in an organization. Generally, first line managers are directly responsible for the production of goods and services. They are often referred to as section or production supervisor, depending on the organization. First line managers in most organizations spend little time with higher management or with people from other organizations. They spend most of their time with the people they supervise and with other first line managers. In other words, they are a link between the operations of each department and the rest of the people. First-line managers spend little time planning and organizing because they spend most of their time directing the employees who actually do production work or deliver services and also provide constructive feedback (Hellrigel, Jackson, Staude, Amos, Klopper, Loum and Oosthuizen 2006:11)

Another level of management is middle managers. The role of a middle manager is to direct employees' activities, determine which products or services to provide and also to decide on how to market these products or services. Middle managers get most of their strategies and policies from the top managers and convert them into specific goals and plans for the first-line managers to implement. Middle managers are also referred to as department heads, plant managers and directors of finance. They are responsible for directing and coordinating the activities of first-line managers, and at times non-managerial personnel such as clerks, receptionists, and staff. Middle managers are often involved in reviewing the work plans of those groups, helping them to set priorities, and negotiating and coordinating their activities. They also create target dates for products or services to be completed, develop evaluation criteria for performance, decide which project should be given money, personnel and materials; and finally, translate top management's general goals into specific operational plans, schedules, and procedures. In short, they often spend much of their day talking on the phone, attending committee meetings and preparing and reviewing reports (Hellrigel, Jackson, Staude, Amos, Klopper, Loum and Oosthuizen 2006: 11). This level of management and its role is found in higher institutions today. As research has shown, just a few women manage to occupy these positions and perform such roles. The question here is: does it mean women cannot handle these duties? This will be answered in subsequent sections.

Finally, the highest level of management is top management. This is the position in which women are significantly underrepresented in most organizations worldwide. The reasons for this underrepresentation of women have still not been fully addressed. It is there important to understand the various roles/ duties performed by top managers. Top managers are responsible for the overall responsibilities of the organization. They are often known as the CEOs, presidents, chairpersons, managing directors, division presidents and executive vice presidents. They are generally focused on defining and setting goals, establishing and budgeting priorities, implementing tactics, tracking performances and other details, and managing follow-through (Greenberg and Sweeney 2012:64, Clegg; Kornberger and Pitsis 2012: 17).

In the case of higher education, top, managers are called chancellors, presidents, rectors, principals or vice chancellors, depending on the country. Top managers

develop goals, policies, and strategies for the entire organization and they are often handed down through the hierarchy until they eventually reach each worker. For instance, in the South African higher education context, the vice chancellor develops policies and strategies for the institution and then hands them to the deputy vice chancellor, who will then hand them to the deans, then to the heads of departments and to the staff. Top managers must be able to respond quickly to crises that may create image problems for their organizations.

Top managers often have tightly scheduled work days, heavy travel requirements and a workweek of 60 or more hours. This is because they spend most of their days (75%) planning and leading (Hellrigel, Jackson, Staude, Amos, Klopper, Loum and Oosthuizen 2006:12). This may be the reason why White, Carvalho and Sarah (2011:2) state that women in senior management find it harder to balance research and management roles.

2.3.1 Public administration

Public administrators are individuals who are found at all levels of government that is they are found in urban or local, state or regional, national, and international. To be more specific, *public administrator refers to those individual employed not only by government but also by service institutions, such as hospitals and universities* (Starling 1977:2-3). On a different note, Fox and Meyer (1995:105) define public administration as “the executive branch of government; civil service; and bureaucracy charged with the formulation, implementation, evaluation and modification of government”. Public administrators are usually involve in community development, business regulation, educational administration, environmental management, international development, administration, manpower and employment, national security and arms control, space law, personnel, health care service administration, medical research, public work administrator and transportation planning (Starling 1977:3). Public administration, in all it domains, must recognize the citizens’ needs and the society’s possibilities and strive to have equal standards (Jugovic 2012:3).

2.3.2 Public management

The term public management is a new phrase that evolved in the 1980s and has achieved dominance in some areas (Bovaird and Loffler 2010:6). Before the 1980s, the study of the work of civil servants and other public officials such as public policy officials and politicians who passed legislation was known as “public administration”. However, due to the trick image of bureaucracy, a new phrase then began to be heard which was “public management” (Loffler 2010:6). According to Bovaird and Loffler (2010:6), the term public management is an approach that uses managerial techniques to increase the value for money achieved by public services. Public management therefore covers the set of activities undertaken by managers in the public sector or service organizations, and it can be voluntary or involuntary. Moreover, Denhardt and Denhardt (2008:4) noted that Public Management addresses the kinds of doctrinal issues of what public manager do.

Public managers are involved in all aspects of public finance, state security, domestic security, foreign affairs, education, manpower, commerce and industry, economics and matters of local interest. They also protect and maintain the wellbeing of the public they serves (Denhardt and Denhardt 2008:6). According to Denhardt and Denhardt (2008:7), the functions of public managers are *“to administer health services and improve our cities; be involved in all aspects of criminal & public law; help protect our environment; They are involved in land development, nuclear power development and many facets of research in the fields of technology, medicine and the human sciences; public managers ensure that proper staff administration is practiced in the form of staff provision, maintenance, training, development and utilization by overseeing the development and maintenance of correct working methods and procedures and should arrange for the creation and maintenance of effective control measures”*.

2.3.3 New public management

The term “new public management” was coined by Christopher Hood in 1991 to categorize the wide range of transformation that was going on in the United Kingdom (Hood 1991:3). This transformation was aimed at making public service workers compete at the same level as their private sector counterparts in an orderly hierarchical manner, and to modify bureaucracy and eliminate duplication and decentralization (Hood 1996: 268). Even though new public management started in the United Kingdom, it is important to note that it has spread to most countries in the world including South Africa. New public management in South Africa aims to reduce the challenges of traditional public administration and it has helped to promote democracy, decentralization and a free-market oriented government in South Africa (Vyas-Doorgapersad 2011:239).

In the same light, Cameron (2009: 937) notes that new public management came into South Africa to promote the decentralization of powers to managers, financial reforms, management performances and appointment contracts, as opposed to the traditional public administration methods that took place before 1994. According to Cameron (2009:927), it is thanks to the new public management that contract appointments were introduced in South Africa. Today we find more women entering the field of public management in many organizations, however the problem that arises is that just fewer women actually occupy top management positions in those organizations. It would require more efforts, research, recommendations of policies and manuals for equity to be attained.

2.4 Purpose of higher education

Higher education is define as post-secondary education, advanced third level learning at diploma and degree level at a university and university of technology (Gumede 2014: 68). In a South African context, higher education means all learning programs leading to qualifications higher than grade 12 as expected by the South African Qualifications Authority Act, (Act No. 58 of 1995); and South Africa Higher Education Qualifications Framework (2008:2). It can be full time, part time or distance learning. There are two types of higher education, namely public and

private higher education. Public and private higher education differs in the roles they play in society. Public higher education is more likely than private higher education to emphasize its role in providing services to the community, economic development, and preparing graduates for the local and regional workforce, while private higher education is more likely to highlight the importance of students' development and the liberal arts (Saichaie and Morpew 2014:3).

With the increasing demand for education and increased employment requirements, government and the private sector demand that it is the responsibility of universities to solve societal problems and accelerate knowledge (Ursin et al 2010:2-3). Globally, this expansion of knowledge in society has been seen as a very effective means to improve society. Ursin (2010:2) believes that it is necessary for universities to improve the quality of their institutions. This implies that the progress of women in higher education is supposed to be an issue of concern for all higher education institutions, since their progress is slower when compared to their male counterparts.

According to Labaree (1997), cited in Saichaie and Morpew (2014:3), modern education in the United States is characterized by three challenging goal which are democratic equality, social efficiency and social mobility. Democratic equality focuses on the production of engaging citizens, while social efficiency emphasizes the school's role in educating productive workers. Finally, social mobility highlights the value of education for the individual consumer of education. In Australian universities, academic advancement is largely determined by the combination of research outputs and teaching performance (Dobele, Rundle-Thiele, Kopanidis and Steel 2010:2). This implies that academic advancement varies depending on the university.

In South Africa, there has been a great change in most higher education institutions compared to the apartheid era. Badat (2010:2) notes that the main aim of this change has been to get rid of inequalities amongst classes, races, genders and the institutional and geographical locations of South Africa. Similarly, De La Ray (2009:8) notes that, the transformation of higher education in South Africa was aimed at enhancing responsiveness to social needs, capacity building, encouraging the collaboration between institutions and leveling the higher education field for equity and equality of all. This has been achieved through the mobilization of

considerable financial, material and human resources from a large list of corporate donors (Raufflet 2009:1). However, despite the significant investment on the part of government to resolve these issues, persistent problems still remain in the area of cultural transformation of people, work-life balance, stereotypes and academic structures. These have affected the progress of women to move to higher level or position at work (Shay 2014; Valerio 2009:3; Taylor 2011:8; Gouws 2012:10).

2.4.1 Higher education as a public management function

Recent research has shown that higher education has a vital role to play in contributing to the development of an information society and human resource development in South Africa in terms of skills, development and research (Subotzky 2014:2). Higher education and public management co-exist in several ways and neither higher education nor public management can be effective without the other. Even though they are related, not all practices of higher education are part of the public management function, and not all aspects of public management are part of higher education (Rainey 2014:8). Public management and higher education coexist in the sense that public management has now become a course in graduate and research programs. Public managers are the major forces needed to build a complete and diverse knowledge society and to advance research, innovation and creativity (Rainey 2014:8). Another co-existing function between higher education and public management is that, in higher education, the planning, organizing, supervision, control and delegation of authority is done by public managers (Rainey 2014:8).

In the first half of the twentieth century, a number of writers developed the first management theories that included a broad range of administrative functions (planning, organizing, supervision, controlling and delegating authority) that is now included under the topic of management and the proper means of discharging those functions (Rainey 2014:22). These functions were developed to guide managers in an organization, and organizations of all types often perform these functions.

According to Bovaird and Loffler (2010:59), the main management functions which are considered in the running of public services and the management of public

sector organizations are: strategic management, marketing, procurement, financial management, human resource management, information and communications technology management, performance measurement and management, quality management, process management and inspection and audit. However, even though all these management functions have acquired greater importance in managing public sector organizations, the research focus here will be human resource management. This is because human resource management is more related to the study objectives.

2.5. Legislative framework

To be able to analyse the DUT's policies in relation to staff development, employment equity, appointment and promotion of staff at the university, it is important to firstly understand the main legislation that governs the Republic of South Africa. There are many laws that govern the Republic of South Africa, but the researcher focused on the laws that were relevant to the topic. The subsequent paragraphs described these laws and their purposes.

2.5.1 Higher Education Acts of South Africa

2.5.2 Basic Conditions of Employment Act (No 75 of 1997)

The Basic Condition of Employment Act (No 75 of 1997) is one of the most important laws governing South Africa higher education institutions, their regulations, provision for quality promotion, transitional arrangements and other issues relating to higher education. The purpose of this act is *"to lay down the minimum conditions of employment to ensure that workers are protected from exploitation by their employers* (Hunter 2012:384). According to Hunter (2012:384), the main provisions of the Basic Condition of Employment Act are:

- Working hours, meal interval, and rest periods;
- Overtime and payment for overtime;
- Work on Sundays and public holidays
- Night work;

- Annual leave;
- Sick leave;
- Maternity leave;
- Family responsibility leave;
- Contract of employment;
- Payment of wages and salaries;
- Deductions from wages and salaries;
- Termination of employment and
- Employment of children under the age of 15.

According to Hunters (2012:384), the aforementioned selections of the provisions of the Acts are the ones that managers need to be aware of. It also should be kept in mind that these are minimum conditions of employment. The Act does not prevent employers from offering conditions of employment and employee benefits that exceed these conditions. These conditions relate to the factors influencing the career progression of women in higher education in terms of working hours, overtime, annual leave, sick leave, maternity leave entitlement, family leave, public holidays, termination of contract and remuneration. It is important to stress this section of the Act because studies have shown that, despite these policies being in place, women still suffer work over load, insufficient leave and remuneration (Boushey and Farrell 2013; Coward 2010; Riodan and Louw-Potgieter 2011; Stromquist 2013; and Tsoka 2012, Bruckmuller; Ryan, Rink and Haslam 2014; Gabriela, Dan and Antonia 2013; Morley 2014; Johansson and Sliwa 2014; Riberro, Bosch and Becker 2013). Furthermore, the fact that the Act stipulates that the employer must provide an available, supportive and flexible working environment for employees with family responsibilities implies that there is a need for employers to provide sufficient facilities that would accommodate pregnant women, women with children and a workload that would not jeopardise employees health and progress. According to Dancaster and Cohen (2010:41), providing sufficient family responsibility leave and flexible working hours enhances career progression.

2.5.3. The Labour Relations Act, No 66 of 1995 (LRA)

The Labour Relations Act, No 66 of 1995 of South Africa applies to all employees in South Africa except those in the National Defence Force, the National Intelligence Service and the South African Secret Service. According to Hunter (2012:387), the purpose of the Labour Relations Act is:

- To give effect to section 27 of the constitution;
- To regulate the organizational rights of trade unions;
- To promote and facilitate collective bargaining at the workplace and at sectoral level;
- To regulate the right to strike and the right recourse to lockout in conformity with the constitution;
- To promote employee participation in decision-making through the establishment of workplace forum;
- To provide simple procedures for the resolution of labor dispute through statutory conciliation, mediation and arbitration and through independent alternative dispute resolution services accredited for that purpose;
- To establish the Labour Court and Labour Appeal Court as a superior court, with exclusive jurisdiction to decide matters arising from the Act;
- To provide for a simplified procedure for the registration of trade unions and employers' organizations, and to provide for their regulation to ensure democratic practices and proper financial control;
- To give effect to the public, international Law obligations of the Republic of South Africa;
- To amend and repeal certain laws relating to labour; and
- To provide for essential matters.

The Act is further divided into sections that provide more detailed explanation and guidelines to assist in its application. The following sections of the Labour Related Act will be discussed: Section 185:145 of the Labour Relations Act, 66 of 1995 of South Africa makes provisions for every employee not to be unfairly dismissed or subjected to unfair labour practices at the workplace, and it is linked to the research objectives of this study, which seeks to investigate the perceptions of women staff at

DUT concerning the factors that promote or retard the progress of women (Hunter 2012:387). Section 203 of the Labour Relations Act of South Africa (1995:168-169) is worth mentioning in this study because it protects all employees from sexual harassment. The Act provides a sound code of practice which regulates how to handle sexual harassment cases in the workplace (by the National Economic Development and Labor Council). This section of the act is relevant to this study because research has shown that one of the reasons for women's lack of progress at the workplace and higher education in particular, is sexual harassment (Saunders and Eastal 2012; Anne 2009).

- **2.5.4 Employment Equity Act (No 55 of 1998)**

The main aim of the Employment Equity Act of South Africa (1998:5) is to “*achieve equity at the workplace by promoting equal opportunities and fair treatment/practices in employment through the elimination of unfair discrimination/practices and by implementing affirmative action to redress the disadvantages in employment that have been experienced by designated groups* (Hunter 2012:391)”. According to Hunter (2012:391), the Employment Equity Act of South Africa has two main sections. The first deals with equity and discrimination. The Act states that no employee should be discriminated against on the basis of race, gender, sex, pregnancy, marital status, family responsibility, ethnic or social origin, color, sexual orientation, age, disability, religion, conscience belief, political opinion, culture, language, birth or HIV status. Secondly, the Act deals with affirmative action and states that it is not unfair to discriminate where affirmative action is being applied in an organization. The Act applies to employees in all organizations except those in the National Defence Force, the National Intelligence Agency and the South African Secret Service. (Hunter 2012:391). This implies that managers should make decisions about employees based on their skills, knowledge and experience.

The Employment Equity Act (S.A.1998:6) has the following provisions: medical and psychometric testing of employees that requires the employer to be fair to all employees regarding their medical and psychological testing. Unfair discrimination relating to these should be dealt with in terms of Labour Relation Act; affirmative action that requires all employers who employ more than 50 employees to implement

favorable measures for designated groups, which are women, disabled people and black people such as Africans, Indians and Coloureds who had been disadvantaged by apartheid laws. Furthermore, there is the organizational analysis clause which ensures that employment policies, practices, procedures and the work environment identify any barriers which might be disadvantageous to people. The clause also requires an Employment Equity plan. Managers have to draw up a five-year plan which illustrates how they plan to rectify the inequalities in the organization and penalties are imposed on non-compliant organizations. It also addresses disputes that relate to the Employment Equity Act. Appeals are addressed in the Labour Court.

The Employment Equity Act 55 of 1998 is a very important Act that cannot be ignored because it relates to the main objectives of this study, given that the Act's main purpose is to address equity at the workplace. The focus here is to know whether this Act has achieved its main objectives as stipulated, and to know whether these rules are being implemented and monitored. Research findings have proven that gender equity at the workplace has not been achieved in South Africa as a whole and at DUT in particular (Tsoka 2012; Hofmeyr and Mzobe 2012; Moodie 2010; the Grant Thornton Report 2012; the Chartered Management Institute Report 2013; the SABPP Women Report and the DUT labour workforce profile 2013). This implies that solutions are needed.

2.5.5 White Paper on the Transformation in Higher Education of South Africa

“The purpose of this White Paper is to provide a policy framework that will facilitate the development of human resource management practices which support an effective and efficient Public Service, geared for economic and social transformation. Human resource management is therefore regarded as one of the strategic instruments of the transformation agenda for the’ Public Service”. Due to the challenges faced by higher education during the apartheid period in South Africa, the programme for the transformation of Higher Education (Education White Paper 3, Notice 1196 of 1997) was released on the 24th of July 1997 to help lead and push the higher education system in the intended direction. According to the White Paper on the Transformation of Higher Education South Africa (S.A. 1997:10), higher education institutions are advised to re-evaluate their human resource strategies and

practices in order to develop and motivate workers who are unable to meet the expectations of the organizational goals or stakeholders. So, it is the responsibility of every institution to come up with management strategies that would achieve these objectives and improve on the employees' performance, creativity and the work environment at large. This Act has helped in providing the proper coordination of higher, advancement of knowledge and skills, quality academic standard education, as well as making the citizens free from all forms of discrimination in order to improve the economy of South Africa.

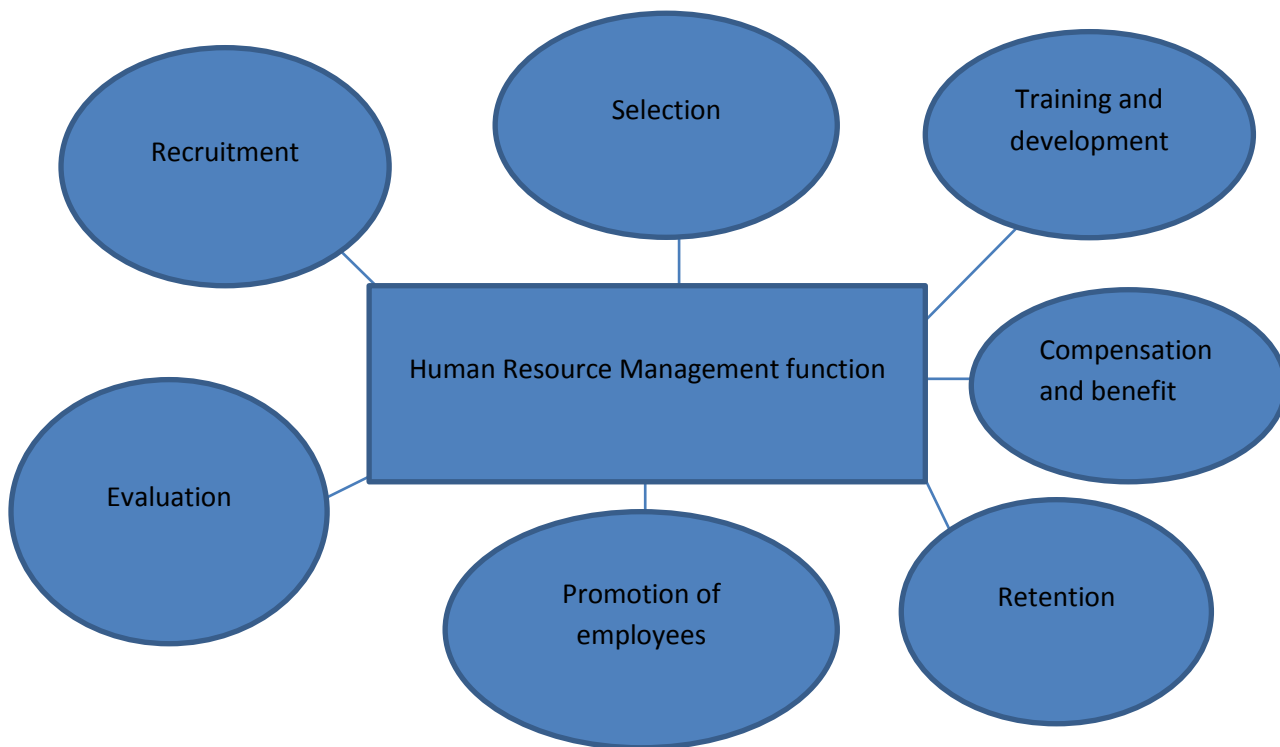
In relation to this study, the Act is intended to increase the needs and demands of the new social order of equity in institutions of higher education and the need for accessibility for all citizens without any form of discrimination. Therefore challenges of equity, especially gender equity, need to be into considered at all times.

2.6 Human resource management

Human resource management is the formal system in an organization to ensure the effective use of employees' knowledge, skills, abilities and other characteristics to accomplish organizational goals (Pynes 2013:3). According to Hunter (2012:17), human resource management is a strategic approach to managing employment relations which emphasises that leveraging people's capabilities is critical to achieving sustainable competitive advantages. It focuses on relationships and peoples' capabilities and is aimed at achieving a competitive advantage. Pynes (2013:3) believes that the main functions or concerns of human resource management are recruitment; selection; training and development; compensation and benefits; retention; evaluation; promotion of employees; and labour-management relations within an organization. In the same light, Bovaird and Loffler (2010:121) also state that personnel or human resource management is basically about "getting, retaining and developing people's skills that are required by organizations to enable them to achieve their objectives. It involves job design, recruiting and selecting staff to fill the job, motivating them to perform at the standards required and equipping them to cope with change. It also involves designing and administering rewards; dealing with discipline and grievances and ensuring that organizations operate within the regulatory frameworks set down by

the law”. For instance, in the South African context, the White Paper on Human Resource Management in the Public Service (1997) states that public human resource managers are responsible for human resource specialists and all other public managers (Bovaird and Loffler 2010:121). Figure 2.1 illustrates the relationship between human resource management and gender in terms of its functions and policies.

- **Figure 2.1 Human resource management function**



Source: (Self-generated by the researcher)

Figure 2.1 illustrates that the human resource manager is responsible for the selection, recruitment, compensation and benefit, retention, promotion of employment, evaluation and the training and development of personnel. Human resource managers are in charge of decision-making such as training and development, recruitment of staff and, above all, promotion of employees. This implies that the career progression of women in an organization is supposed to be an issue of concern to them since their main aim is to ensure the effective use of employees’ knowledge, skills, abilities and other characteristics to accomplish organizational goals (Pynes 2013:3). It is also the responsibility of human resource managers to make sure that equity at the workplace is ensured through selection

and recruitment. In the context of South Africa, they are to ensure that the Employment Equity Act 55 of 1988 of South Africa is complied with. However, there are studies that still indicate that women are unfavourably treated when it comes to recruitment, selection and evaluation as compared to their male counterparts (Alvesson and Billing 2009: 146-147; and Meera and Deo 2014:8-22). Who believe that some job advertisements are structured to disfavour females, as they often call for more qualifications than needed. They further states that there is gender bias and a glass ceiling in the assessment and selection of females.

2.7 Human resource management in higher education

As higher education institutions have expanded and diversified to meet the demands of contemporary environments, so too have their work-forces or their professional staff (Whitchurch 2008:2). According to Sisson (2010:4), Whitchurch (2008:3), Marchinton and Wilkinson (2012:314), the essential purpose of the human resource function in higher education is to create value for the organization and to ensure that policies and practices governing the manner by which people work should be judged by the extent to which they enhance organizational competitiveness. Beside this main function, human resource practices are to ensure that administrative, faculty and staff employment concerns are addressed on a continual basis. Above all, human resource administrators must make sure that institutional policies and procedures do not hinder organizational flexibility and responsiveness. This takes us to the main focus of this study, which is the career progression of women in higher education.

The career progression of women in higher education should be an issue of concern to human resource managers because they are the ones in charge of recruitment, selection; training and development, compensation and benefits; retention; evaluation; and promotion of employees, as well as labour-management relations within an organization. In the case of DUT, recruitment, selection and appointment policy candidates can be sourced through internal and external advertising, which must be done simultaneously. All promotional posts are to be internally advertised. The fact that fewer women are in top positions in an organization, implies that policies in relation to staff development, employment equity, appointment and

promotion of staff at universities need to be examined to find out how these policies affect the progress of women at the university.

The current statistics obtained from the DUT Human Resource Offices. Labor workforce profile (2013: 3) shows that the number of females in top management is 2; while males are 2, in senior management positions the number of females is 4, while males are 14; in professionally qualified and experienced specialists and mid-management, the number of females is 278 while males are 322. Lastly, in skilled technical and academically qualified workers, junior management, supervisors, foremen and superintendent; the number of females is 354 while males are 265. The table below illustrates the workforce profile (employees) of all DUT staff (2013:3).

Table 2: Work profile of employees

Occupational levels	Male	Female	Total
Top management	2	2	4
Senior management	14	4	18
Professionally qualified and experienced specialists and mid-management	322	278	600
Skilled technical and academically qualified workers; junior management; supervisors; foremen; and superintendent.	265	354	619
Total	603	638	1241

Table 2 indicates the occupational levels of DUT staff (self-generated by the researcher) based on the statistic from the Department of Labour (DUT 2013:3). The above statistics did not include support staff at DUT. Looking at the workforce profile statistics of the Durban University of technology, one can see that the progress of women as compared to their male counterparts in higher positions is not at the same level, meaning that the policy is not achieving its objectives and something has to be done. The higher the position, the fewer the women; while the lower the position, the more women we find.

According to Whitchurch (2008:2), there are typically seven Human Resources management functions in Higher Education: labor-employee relations, recruitment, professional development, institutional benefits, salary administration, classification and compensation, and systems and technology. The primary responsibility of each function is discussed below.

- **Labor-employee relations**

Labor relations strategies are reviewed to ensure that related processes and outcomes are consistent with the institution's mission and that the implementation of contracts or unionization itself does not adversely impact educational quality or effectiveness (Whitchurch 2008:2).

- **Recruitment**

According to Whitchurch (2008:2), human resource staff ensures that recruitment efforts focus on one main objective, which is to recruit people based on skills, attitudes, diversity, and work experiences that would enhance the institution's competitive position. Beyond that, formal systems are needed to review recruitment policies to protect privacy, equal employment and civil rights. Faculty and administrative staff must be involved in projecting workforce needs or shortages and developing institutional responses to these needs; the responsibility for managing the process lies with the human resource professionals. Taking the case of DUT, recruitment policies are slightly different because recruitment is not only based on skills, diversity and work experience but on the applicant's nationality as well. This is

in compliance with the Employment Equity Act, No.55 of 1998, that stipulates that only South African citizen by descent or birth or naturalization are to be given preference for positions available (at DUT). Appointment of a foreigner has to comply with the requirements stipulated in section 19 of the Immigration Act, which requires DUT to attest that despite a thorough search, no suitable South African was found. As for South African citizens the DUT policy stipulated that recruitment, selection and appointment staff should be based on the most suitably qualified candidates, taking into consideration the DUT vision, mission, university goals, conditions of service and the employment Equity Policy (DUT Recruitment, Selection, Appointment policy 2007:2-3). This implies that Whitchurch (2008:2) did not take into consideration the applicant's nationality in his definition.

- **Professional development**

The professional development that enhances individual growth and upward mobility in institutions and universities is often sponsored and advocated by Human Resource experts. Professional development includes supervisory training or career counseling in the areas of conflict resolution, employee discipline and terminations; performance reviews; as well as providing opportunities for career advancement in the areas of skill development and internal mobility. The human resources office may also sponsor programs to ensure that administrators and faculties are aware of new information, legal or technical changes in various programs or institutional policies, and federal or state legislation (Whitchurch 2008:2).

In line with the DUT, the Skills and Professional Development Policy enables all DUT employees to access skills and professional development training programmes. The purpose of this policy is to provide a decision-making framework for coordinating and directing the skills development initiatives of the Durban University of Technology; provide a framework for implementing and monitoring the skills development plans for all departments in line with departmental goals; Provide a framework for implementing the principles contained in the legislation governing education, training and development; create an environment that is conducive to the utilization of skills development opportunities; increase skills for enhancement of performance, address equity and social development; and to ensure the achievement of the

strategic goals of the university through skills development (DUT skills and professional Development Policy 2007:2).

- **Institutional benefits**

The human resource office is often responsible for reviewing benefit programs for cost effectiveness, legality and market competitiveness. Preferably, the institution has a benefits philosophy linked to the character, culture, and mission of the institution. Any new services and programs should be evaluated in reference to this philosophy. Also, all institutional employees must have access to information that enables them to make informed decisions on proposed changes in retirement and related benefit packages and how to best use those benefits. They must also have access to individuals who can provide advice or counseling to employees on such specific issues as retirement, termination counseling, financial planning, unemployment insurance, and wellness and health programs (Whitchurch 2008:2).

- **Salary administration**

According to Whitchurch (2008:2), human resource professionals manage salary programs and endeavor to guarantee that salaries are determined on the basis of a formal system. This does not exclude a system designed to reward merit or provide cost-of-living raises. Salary administration conforms to applicable labor agreements, legislative policies, and wage and hour statutes. Finally, salary administration includes systematically reviewing salary decisions, monitoring and working with the cumulative consequences of those decisions and making sure that salary programs are consistent with the institution's competitive stance vis-à-vis its comparator institutions.

- **Classification and compensation**

Classification and compensation is one of the human resource functions that ensure a formal system in all institutions. It ensures that all employees are properly assigned to position categories and compensated on the basis of position difficulties. In nonacademic and administrative areas, job descriptions need to be updated on a

regular basis and the integrity of the classification system must be continuously monitored. In academic areas, the absence of appropriate, distinctive categories for teaching positions is common, the theory being that professionals (in this case, faculty) continuously monitor the changes and needs in their disciplines. The formal system of classification should serve to guide administrative and staff employees as they seek to advance their careers (Whitchurch 2008:8).

- **Systems and technology**

The last function of human resource management is systems and technology. Human resource management provides usable data analysis to facilitate effective decision-making. Both the data and its analysis should be available for curricular, financial, budgetary and related decisions (Whitchurch 2008:8). According to Whitchurch (2008:8), human resource systems must be designed to protect employee privacy while providing necessary information to deans, supervisors and other administrators on a need-to-know basis.

2.8. Women in employment

In this section, literature related to the status of women in general and South Africa higher education in particular will be reviewed in order to shed more light on the research topic.

The status of women in employment in general, and in higher education in particular, has a long history. Traditionally, the workplace, especially higher education, was not a place that was suitable for women. Only men had access to this level of education, while women were denied access to higher education and were considered only suitable for the responsibilities of reproduction, and family and home care (Tsoka 2012:12; Gabind 2011:34). Years later, there was a growing demand from feminist for equal rights for both women and men. The first country to participate in this process was the United States, followed by Europe. The movement then expanded to Latin America and it is now reaching Africa. Furthermore, slowly but steadily those barriers that prevented women from gaining access to university studies were

overcome by women. The challenge now is for them to be equally represented in top positions in higher education and workplaces at large.

However, it is worth stating that the long struggle of women is becoming worthy and inspiring to other women of today. The problem remains that gender equity has still not been obtained. According to Davidson and Burke (2011:7), the progress of women in managerial and professional jobs in most countries has improved generally at lower management positions but is still poorly under-represented at senior levels of management. Valerio (2009:14) believes that senior and top management positions do favor men more than women because women are often side-lined. There is no evidence or statistics in the world that show that women represent half of the top management positions in an organization, even though women represent more than 50% of the world's population (Valerio 2009:14).

2.8.1 Women in employment in South Africa

There is male dominance over women in South African institutions. For instance, Tsoka (2012:8) reveals that even though women have made their way into middle and top management positions, they are still underrepresented as compared to their male counterparts in the workplace, despite the enactment of policy frameworks addressing gender equity. Statistics indicate that in 2007, the number of women in managerial position was 41% and men was 59%; However, in 2008, this figure went down from 41% to 38%, while there was an increase in male managers from 59% to 62% (Tsoka 2012:8). These statistical figures confirm that there is a decrease on the promotion of female managers. This author further explains that in 2010, statistical evidence in Gauteng revealed that there were 10.8% of men as compared to 5% of women in top managerial position. This means that the representation of male leaders is twice that of female leaders. However, even of more importance are the finding of Hofmeyr and Ndobe (2012:8) revelation that South African board rooms are male dominated by 67%, meaning that women are found mostly at the middle and bottom of the organizational ladder. This implies that more men are on top and senior management positions as compared to women. Looking at the statistics, it is clear that women have made progress. However, this is not enough when compared to the significant increase in the number of women in higher education worldwide.

According to the Chartered Management Institute Report (2013:8), women do not rise as rapidly as their male counterparts because men and women have different career aspirations when it comes to managerial positions. The researcher believes that the efforts to achieve equality for women have not been fully addressed and this has led to women not being able to show their full potential. There is therefore a serious need for policy makers to transform gender practices in order to achieve equitable results.

2.9 Women in higher education

Looking at the historical background and status of women in higher education in general, there has been more progress mostly in lower position and less progress in the senior and top levels of organizations. According to Gabriela, Dan and Antonia (2013:3), this is based on the fact that recruitment procedures have improved as compare to the past. Unlike the past decades, it is very common today to find women serving as chancellors, vice chancellors, deans, heads of department and other high-level officials in many universities worldwide. However, the problem that arises is that the proportion of the women in such positions is small as compared to men (Gabriela, Dan and Antonia 2013:3). Scholars and policy-makers point out that enhancing the representation of women across types of institutions and levels of academia will help create more inclusive and hospitable climates for both men and women (Bhandare 2008: 266; Alvesson and Billing 2009: 236). Moreover, one may expect that, since universities are at the forefront row of higher learning, critical analysis and innovation, they would be more rational when it comes to gender equity, which does not appear to be the case (Wallace and Merchant 2011:2). Wallace and Merchant (2011:2) believe that equity has not been attained in universities, even with a critical mass of senior women, because of workload increases and the greed of the organizations.

A study conducted by Silander, Haarke and Linderberg (2012:4) in the Swedish higher education system shows that the total number of women who are professors and senior lecturers in the humanities, in veterinary medicine and in odontology, are very few compared to the total number of female lecturers in the same fields. This

implies that women are underrepresented in advanced positions in higher education in Sweden. Another study conducted by Yinhan, Qi and Kai (2013: 5) in China reveal that the proportion of women who are in higher positions in Chinese higher education is still very small as compared to other countries, despite the fact that women have managed to break through the glass ceiling and enter the ranks of the elite. Findings by Harris and Leberman (2012:6) in New Zealand also show that this under-representation of women applies to New Zealand's universities, despite the country holding on to the fifth position in the 2009 global gender gap ratings score card published by the World Economic Forum. Meaning the challenge is a worldwide phenomenon and not a South African problem.

2.10 Factors that retard the progress of women

This section presents a review of work that has been done in South Africa and other parts of the world in terms of how women have been progressing in their careers. It will also identify the factors that retard and promote women in their careers in general and higher education in particular. Recent research has focused on the career progression of women in higher education in various ways (Botool and Sajid 2013; Hofmeyr and Mzobe 2012; Bruckmuller, Ryan, Rink and Haslam 2014; Yinhan, Qi and Kai 2013). This study will therefore focus on the career progression of women in terms of higher positions. This area of progress is chosen to be investigated because it is surprising that women of today enter the workplace with similar levels, credentials, expectations, and necessary experience for advancement as men, but do not rise to top positions in the same way as their male counterparts. The UNESCO Report (2012:17) asserts this view by stating that women perform the same as men, and at times even surpass them when it comes to earning university degrees, but lag behind in terms of career progress. The question here is why do women still continue to experience barriers to complete success? According to Nelasco (2008) cited in Jha and Jha (2013:13), women got high, leadership potential, but this potential is hidden by social, economic and political constraints. In the same light, Hofmeyr and Mzobe (2012:1) state that although women have achieved specialised and administrative decision making positions at the lower and middle levels of the organisational ladder, it is still challenging for them to get managerial positions in universities as they are still far behind men in terms of their

representation in top management positions. They noted that some of the reasons for this are poor leadership commitment by women, recruitment discrimination and inflexible time arrangement for women with young children.

Scholars have identified different reasons for this situation. Botool and Sajid (2013:375) argue that the first major barrier to the progress of women in higher education is the “glass ceiling”. According to the U.S. Glass Ceiling Commission (1995:4), the concept glass ceiling refers to “is the unseen, yet unreachable barrier that keeps minorities and women from rising to the upper rungs of the corporate ladder, regardless of their qualifications or achievements.” Botool and Sajid (2013:377) continue by stating that educational promotion largely depends on publication records, conference presentations and research that sometime require academics to travel for some days. However, some traditions and cultures still restrain the movement of women and, as such, put women in a disadvantaged position in this regard. This may be the reason why Moorosi (2007:3) notes that some women do not progress because moving into management positions brings additional stress, since they consider management work to be inflexible and restrictive.

Furthermore, barriers to the career progress of women can be explained by the social role and expectation theories (Nkomo and Ngambi 2009:3). These theories suggest that a perception has been created that leadership tasks require features that are masculine which leads to concepts that men make better leaders than women. The title may have changed, but the negative perceptions of leadership positions still remain. For instance, Dominici, Fried and Zegar (2009:2) argue that leadership positions are less attractive to women than men because women in administrative offices are underfunded as compared to the amount of work they do. Secondly, women in leadership positions are expected to be available at work at any time and success in such positions often depends on the spouse who can shoulder domestic responsibilities. The same may apply to academic leaders; some women find it less attractive because they have personal obligations that they cannot delegate to others. In the same light, Gouws (2012:10) in the Report of the Colloquium on “Overcoming Barriers to Women in Leadership in Higher Education,

holds that some women are not interested in senior management positions in higher education because of the inherent challenges of such positions.

Hofmeyr and Ndobe (2012:8) argue that, in South Africa, one of the major problems hindering the career progression of women is poor self-image. Hofmeyr and Ndobe (2012:8) reveal that most women lose self-confidence as a result of gender discrimination and lack a of mentoring and leadership development programmes. They further explain that South African board rooms are male dominated by 67%, meaning that women do not progress as much men. De Varies (2012:6) in the Report of the Colloquium on “Overcoming Barriers to Women in Leadership in Higher Education” explains that women under-representation is a result of structures in institutions of higher education that have been very formalized and steeped in traditions and rituals that favor males. According to Morley (2013:6), this under-representation of women is missed opportunities for women to influence and contribute to the future of higher education. Boushey and Farell (2013:6) argue that working women are disadvantaged by a lack of policy solutions on how to balance their domestic responsibilities and workplace activities, since women generally take a larger share of family responsibility.

The findings of the aforementioned scholars are quite relevant. However, it would be interesting to find out why the problem still persists and what is being done to address it, especially in the context of higher education environment in South Africa, despite the policies that are in place to support gender equity. Scholars have identified different reasons that hinder the progress of women negatively and these reasons are identified and elaborated on below.

- **Glass ceiling**

Botool and Sajid (2013:375) argue that the first major barrier to the progress of women is the “glass ceiling”. The term refers to factors that hamper women’s success beyond a certain point in their careers. This implies that women aspiring to top management positions find themselves blocked from these positions by seemingly invisible (hence the glass) yet very real barriers (hence the ceiling) that serve to keep the upper echelons of leadership a predominantly male domain

(Bruckmuller, Ryan, Rink and Haslam 2014:2). This issue of the glass ceiling has been a problem for women for many years that aspire or have the opportunity to rise to senior management positions (Bruckmuller, Ryan, Rink and Haslam 2014:1).

Research has argued that domestic responsibilities, whereby men are not willing to share household and child care responsibilities with women, hamper the progress of women. However, a recent study by Bruckmuller, Ryan, Rink and Haslam (2014:10) reveal that stereotypes, male network and prejudices which enable men to help one another, gain the best jobs and exclude women from promotion and influences is also a problem. In the same light, Gabind (2011:34) in the SABPP women's report asserts that the glass ceiling in South Africa hinders women advancement due to inadequate support structures and networking opportunities. Yinhan, Qi and Kai (2013:3) also note that this glass ceiling does not exist only in women's career fields, but also in all areas of women's lives.

- **Lack of perceived role models for women**

According to Levine, Lin, Kern, Wright and Carrese (2011:4), the lack of perceived positive role models in academics is a key reason for the lack of progress of women in their careers. Women lack potential female role models who combine academic career with family responsibilities. Levine, Lin, Kern, Wright and Carrese (2011:4) also believe that women who have succeeded in making it to top position as men are mostly women who do not have children and thus devote all of their time to their work. Only a few women with families or children can successfully manage both work and family. This is because they get easily distracted by their children or families and are most often caught between their jobs and families. According to Ely, Ibarra and Kolb (2011:10), this under-representation of women in senior level positions can give the impression that being female is a liability. This impression discourages women leaders from aspiring to positions of leadership as they see what other women face and how they are treated. Women face opposition from male counterparts when they try to operate out of their prescribed cultural roles. The scarcity of women as leaders makes them seem unfit as role models. Ely, Ibarra and Kolb (2011:10) further point out that the fact that fewer role models exist for women

makes it difficult for other women to be inspired and rise to top positions at the workplace.

- **Frustration with research**

According to Levine, Lin, Kern, Wright and Carrese (2011:4), frustration with research is one of the reasons for the lack of progress of women, especially in higher education. This is because women often find it difficult to obtain funding to secure protected time. Poor mentorship and competition for grants and projects is another factor. Furthermore, Ribeiro, Bosch and Becker (2013:24) indicate that some women report that the reward package that they receive for an article is not sufficient for them as compared to the amount of time and work involved. Findings by White, Carvalho and Riordan (2011:6) in Australia reveal that women in senior management find it harder to balance research and management roles. They perceive research to be difficult and they also lack the courage to do it, due to huge workloads and family responsibilities.

- **Work- life balance**

Historically, domestic responsibilities such as childcare, housework and care for the elderly were seen as the duty of women only. Contemporary research has shown that some men have started having “father time” with their children (Valerio 2009:23). Although the time that fathers spend with their children has increased, women do more than double what men do. According to Valerio (2009:23), married women with children are more likely to work double shifts, one at their paid job and one at home. Dealing with the competing demands of work and home life is a struggle for women. This often leads to stress and frustration for many women who are unable to work towards their promotions. Valerio (2009:23) asserts that most women complain that they are caught between those early morning meetings at 7:00am and the family time of preparing kids for school and breakfast. Some women who are highly affected by this often resign from their jobs due to the dilemma that they face.

According to Alvesson and Billing (2009:149), the work- family connection disadvantages women because they are often less mobile, as family priorities make them abstain from taking a position that requires longer work days, more travel or moving geographically to a new site of employment. This is a serious problem for women because they do not have the time to stay back and work like their male counterparts after work. As such, “women have little time to socialize with colleagues to build up relations and network plus proving their commitment to the social side of the organization” (Alvesson and Billing’s 2009:149).

- **Inflexibility at the workplace and workload**

One major factor that hinders women from progressing to higher positions is the fact that most organizational cultures have not changed. ELacqua, Beennhr and Hansan (2009:286) claim that leadership positions still work better for men than women because men often hold more centralized critical positions in the organizations, where they have access to valuable information concerning job openings, pending projects, and managerial decisions often shared through the “old boys network”. As a result of this, some women do not progress because moving into leadership positions brings additional stress, since they consider management work to be inflexible and restrictive to them (Morley 2014:8.) Furthermore, the progress of women is slow because domestic and work structures interlock to constrain them. This interlock is not a gridlock because change is possible. However, change cannot occur if there is a lack of flexibility at the workplace (Morley 2014:12). Most work places still have a fixed pattern of doing things and change can only be achieved when work schedules and work cultures are flexible.

- **Negative stereotypes at the work place**

The impact of stereotypes on gender and leadership has been studied for decades (whereby women have been seen as unfit for management positions). Taylor (2011:8) notes that this stereotype the work environment occurred in because most jobs were previously held solely by men and, instead of creating new words for women in those professions, the nouns remained masculine. Even women who have risen to exceptional career heights are targeted by negative attitudes about them as

leaders. Jonsen and Maznevsk (2009:4) explain that women who do take up leadership roles are often judged negatively by men and women alike. They also reveal that women who abide by the traditional “female” Or feminine characteristics are considered to be too nice and therefore not capable enough to handle leadership positions. On the other hand, those that show more masculine characteristics are also considered to be hard. This perception alone makes it difficult for women who are in leadership positions because they have to work harder than men to prove themselves. Jonsen and Maznevsk (2009:14) believe that this is a barrier to the progress of women.

McDonagh (2010:42) notes that the issue of stereotyping at the workplace still exists because men do not see it fit to help women in leadership positions. Due to the lack of help and support from their husbands and at the workplace, women opt to work fewer hours or half-days due to obligations to maintain their homes, and are consequently paid less. Stereotyping has blocked the progress of women by casting doubts over their leadership abilities and by forcing them to personally conform to those doubts. Dominici, Fried and Zegar (2009:2) state that another reason to be that leadership positions are less attractive to women than men is because women in administrative offices are underfunded as compared to the amount of work they do. Secondly, women in leadership positions are expected to be available at work at any time and success in such positions often depends on the spouse who can shoulder domestic responsibilities. The same may apply to academic leaders. Some women find it less attractive because they have personal obligations that they cannot delegate to others. In the same light, Gouws (2012:10) in the Report of the Colloquium on “Overcoming Barriers to Women in Leadership in Higher Education, holds that some women are not interested in senior management positions in higher education because of the inherent challenges of such positions.

- **Institutional environment**

Another cause of women’s lack of progress is the intuitional environment; Levine, Lin, Kern, Wright and Carrese (2011:4) assert that the institutional environment is another reason for the lack of progress of women. Women describe the work culture as individualistic, not collaborative and possibly biased in favour of men. De Varies

(2012:6) in the Report of the Colloquium on “Overcoming Barriers to Women in Leadership in Higher Education” explains that women under-representation is as a result of structures in institutions of higher education that have been very formalized and steeped in traditions and rituals that favor males. According to Morley (2013:6), this under-representation of women comprises missed opportunities for women to influence and contribute to the future of higher education. The underlying premise of this perspective is that men and women are equally capable of and committed to assuming positions of leadership.

- **Racism and bias in recruitment**

Another factor that retards women’s progress in higher education is racism and bias in hiring women. Recent findings from Meera and Deo (2014:8-22) reveal that institutional bias which begins at the hiring stage continues throughout women’s careers. The study also reveals that legal education is “fundamentally connected to the political system and to the political economy of race,” and therefore reproduces racism institutionally, with women of color at the bottom of the hierarchy. It was also discovered that women of color face particular barriers with hiring and promotion because of the bias and discrimination present within legal academia. Statistics of findings show that the hiring gap between white and non-white is not the same in the United States. For instance, 73% of white law professors are granted tenure by year eight, as compared to only 47% of law professors of color. This bias in the hiring women and promotion process itself plays a role in the continuing low representation of women in top management positions in higher education. In other words, it puts women in a dilemma.

- **Culture and tradition**

Historically, the dominance of men over women has been an issue for many societies. According to Tsoka (2012:12), the past experiences of women have made them believe that there are jobs that are traditionally designated for women such as child nurturing and cooking. This fact is quite true because, even today, there are many women who still believe domestic or household responsibilities are meant for women only. Some of our traditions, especially in Africa, still believe that it is taboo

for a man to undertake these responsibilities because it is regarded as him going against culture and tradition. This view is also true in South Africa, as many people still consider that a woman's place is at home raising children (Tsoka 2012:12; Gabind 2011:34). Cultural and traditional obstacles have continued to shape women's progress and leadership experiences in the sense that women have become more scarce to go in for leadership positions, but are more visible in other positions or areas in organizations (Odhaiambo 2011:9); Ely, Ibarra & Kolb 2011:14). Botool and Sajid (2013:13) further explain this view by stating that educational promotion largely depends on publication records, conference presentations and research that sometimes require academics to travel for some days. However, some traditions and cultures still restrain the movement of women and, as such, put women in a disadvantaged position in this regard. This implies that some women do not exercise their freedom of movement as men do.

According to Corward (2010:3), history is not the only thing that influences women to see men as leaders. Women's psychological fall-outs also perpetuate this perception. Cultural factors have given this impression that top management positions are only suitable for men and that women should play secondary roles since emphasis is placed on women's role as mothers, caregivers and nurturers (Corward 2010:4). Studies have shown that these gender roles are carried into the workplace because, at work, there are some men who still believe that a woman is supposed to be a subordinate and not the boss. With these factors in mind, the progress of women will always be impeded because they are blocked by tradition and cultural practices that make them to do double work at workload and at home, while the man does one. Consequently there is a need for change because men can also do the things that were previously set aside for women to do such as household chores and nurturing children.

- **Discrimination at the workplace**

Women often do not do well in organizations due to direct and indirect discrimination that is practiced in organizations (Still 2009:2; Wallace and Merchant 2011:2). Barrett and Barrett (2010:3) believe that the underrepresentation of women at senior levels is a result of unequal treatment of men and women at the workplace, as well as the

outcome of gender choices such as parenting and career roles. Discrimination of women is also found at the level of payment. Johansson and Sliwa (2014:14) reveal that women all over the world still get paid less than men, even when they are doing the same jobs as men. There is also continued gender discrimination in certain fields whereby more men, are seen working in engineering, construction, mining, manufacturing and math-intensive fields, while more women work in human resources, marketing and public relations (Toole and Meier 2011:12; and Ceci 2010:8). According to Ceci (2010:8), the reasons for women's underrepresentation in math-intensive fields of science often focus on sex discrimination in grant manuscript reviewing; interviewing; and hiring. They believe that society is presently engaged in the present in solving problems of the past, rather than in addressing meaningful limitations discouraging women's participation in science, technology, engineering, and mathematics careers today. Ceci and Williams¹ (2010:8) further note that if the underrepresentation of women in math-intensive fields is not due to biased journal or grant reviews, perhaps it results from biased interviewing and hiring decisions.

Taking the case of South Africa for, the SABPP Womens Report (2011:13) shows that women all over often find themselves subjected to several kinds of discriminatory behaviours, attitudes and policies, despite the numerous campaigns that have been carried out to ensure equal and fair access for women to the workplace. According to the SABPP women's report (2011:34), in South Africa racial discrimination tends to overshadow other forms of discrimination. The reason is that a rift was created between white and non-white females during apartheid, thus preventing them from uniting and acknowledging the existence of gender bias against them. This implies that access to equal jobs is still discriminatory. The report also shows that besides having equal job opportunities, many developing countries are still facing an industrialization process whereby new jobs are often characterised by poor working conditions, low pay, no sense of security and limited opportunities to climb the corporate ladder.

- **Lack of confidence**

Lack of self-confidence is also seen as a cause of the under-representation of women in the workplace. Hofmeyr and Ndobe (2012:8) argue that in South Africa,

one of the major problems hindering the career progression of women is poor self-image. They reveal that most women lose self-confidence as a result of gender discrimination and lack of mentoring and leadership development programmes. In the same light, Davidson and Burke (2011:1) assert that some women believe that just making their way to the workplace is an achievement because in the past women were not allowed to work. Tom (2013:8) notes that major constraints to the career progression is the choice of women in deciding not to go for promotions, while men are always ready to apply for higher positions even when they lack the official requirements. He believes that this lack of willingness on the part of female is a result of a lack of self-confidence.

According to Haake (2010:3), women experience academic culture as being masculine with hard career conditions and too much competition, and therefore view the system as not suited to them. Water (2013:8) argues that one of the major factors influencing the educational and career choices of young women is the media and the fact that media programming is creating wrong role models for some of young girls. Blair (2013:10) also notes that in order to increase the representation of women in management and senior positions, there is a need to start developing the skills and aspirations of girls at a very young age, which may help translate girls' academic successes into better career outcomes.

- **Difficulties for women managers**

According to Alvesson and Billing (2009:157), managerial positions are more stressful to women than men. Women encounter problems such as communication on the job, lack of support from superiors, performing better than men in order to be evaluated as equally good and working longer hours per week. This causes high levels of stress for women in top positions.

- **Insufficient policies and programmes to address gender issues**

Globally, there are laws in place to support women at work. However, Davidson and Burke (2011:2) note that there are great inconsistencies across countries when it comes to the interest and support of organizational employers in developing policies

and programmes to support women's career advancement. For them, organizations in Canada, Britain and the United States seem to be the most proactive whereas employers in Argentina, South Africa and Turkey seem to be the least proactive, in the support of women managers and professionals. Elaqua, Beehr and Hansen (2009:4) argue that policies and practices such as training, career development, promotion and compensation are major components of the glass ceiling that prevent women from making it to the top.

Batool and Sajid (2013:4) also reveal that the main obstacle to the progress of women is selection and promotion in the academic domain. Women complain that more men than women are on academic boards, and this has created a lack of transparency promotion and selection not transparent. Women also complain that despite fulfilling the criteria for promotion, they are still not promoted. Moreover, Batool and Sajid (2013:4) note that promotion systems largely depend upon the publication record of academics. Due to a lack of publication women are not promoted. The reason for this is that domestic responsibilities limit women's research activities. Boushey and Farrell (2013:6) add that working women are disadvantaged by a lack of policy solutions on how to balance their domestic responsibilities and workplace activities, since women generally take a larger share of family responsibilities.

2.11 Factors that promote the progression of women

Recent research has shown the various changes that have been made to make work life possible for women. Decades ago, working women who got married or had children used to resign from their jobs. Nowadays, they can take leave and also maternity leave (Gabind 2011:41). Some countries in Europe, Africa and America have day-care centres and some government centres for women with children. For instance, Gabind (2011:41) in the SABPP women's report in South Africa notes that South African labour legislation provides substantial leave for employees who fall pregnant until after the birth of the child. An example of such laws includes the Constitution of South Africa Act (No108 of 1996); the Employment Equity Act No 55 of 1998); the Unemployment Insurance Act No 75 of 1997); and the Labour Relations Act No 66 of 1995). These laws stand for the following: to fight

discrimination and dismissal of women who are pregnant; to provide for the payment of maternity benefits to employees (UIA) and four months unpaid maternity leave (BCEA).

American women now have what is called the family Leave Bill that was passed in 1993 to ensure that companies with 50 or more employees provide up to 12 weeks unpaid leave to allow a worker to care for a relative in need and other innovative ways to deal with full-time female employees such as having helpers at home and relatives who can help.

Morley (2014:10) argues that the changes that have taken place are quite helpful but also have their weaknesses. People who take leave to care for their family and home are rarely promoted because it is not part of the promotion criteria. Secondly, the availability of affordable domestic and childcare services in many countries is also a problem because most kindergartens do not open early for women in leadership to drop off their children and go to work, thereby making it difficult to attend early morning meetings. A concrete solution to this problem still needs to be addressed by governments and organizations.

2.12 Gaps in literature

From the aforementioned literature, most of the views put forth by the researchers are limited to the challenges faced by women with children, and the lack of sufficient policies to address these issues. This may give the impression that the situation is different for women without children, which is not the case. Therefore, researching on women in general will give a more comprehensive perspective on why women do not progress as their male counterparts do. Secondly, the fact that women progress slowly and still occupy lower and middle positions at work despite all the phenomenal efforts and solutions being made by research, government, non-governmental organisations and feminist movements implies that there are hidden obstacles that need to be investigated, or rather that a different approach is needed. These factors contribute to the present study which aims to find out the factors that influence the career progression of women at the Durban University of Technology.

2.13. Feminist perspective on gender equity at the workplace

The progress of women cannot be discussed without looking at feminist viewpoints because feminists were the first to focus on injustices that started in our society in the 19th century. Gray (2007: 212) argues that feminism is out to liberate women from practices that oppress them. Hence, it is out to reject all the scientific knowledge or views that are patriarchal in nature. It is important to use the feminist theory in this study because it would give a better understanding of the study and the basis of gender equity. It would also shed light on things that have been overlooked or not noticed and which are very important to women's progress at the workplace. Williamson and Dalphin (2007:21) support this view by asserting that using the feminist approach in research gives greater chances of having valid findings and a broad spectrum of social experiences.

Feminism argues that women and men have equal potential to develop themselves in all domains of life, but that women's potential is hindered by externally required restrictions and influences of social institutions and values. It also asserts that since women experience oppression as a group, they have often been unable to develop their full potential or reap the rewards of their full participation in society. Feminism thus advocates that women should organize in order to achieve change, expand human choices, eliminate gender stratification, end sexual violence and promote labour and women's rights so as to help prevent inequality at the work place and in society as a whole, because women have something valuable to contribute to every aspect of our world (Maciounis and Plummer; 2012:406; Roper-Huilman and Winter, 2011:3). Various perspectives on feminism are discussed below.

2.13.1 Liberal feminism

Liberal feminists advocate for the improvement of women's status by pressurizing for reforms in legal, social and other institutions (Wolfe 2012:2). Liberal feminists believe that human beings were created equally and should not be denied equality of opportunities because of their gender. They seek to expand the rights and opportunities of women. They support equal rights and oppose prejudice and discrimination that block the aspirations of women. Liberal feminists also fight for

reproductive freedom for all women by calling for widely available maternity leave and child care for women who wish to work. For them, both men and women's lives will be improved if society puts an end to legal and cultural barriers fixed in gender, and this can be achieved individually by women and not as a whole (Maciounis and Plumber 2012:408).

Furthermore, the role that women play in their educational career success has been an issue in the debate surrounding the career progression of women. Liberal feminists believe that there is a need to improve women's individual qualities so that they are able to compete on an equal level with men at the workplace (Wolfe 2012:12). They also believe that if there are policies to enhance personal qualities such as education, management skills and changed discriminatory corporate practices against women at work-places, then there will be greater equity in gender representation at the top.

2.13.2 Socialist/Marxist feminism

Socialist feminism evolved from Marxist conflict theory. It views the liberal feminist reforms as inadequate. Socially/Marxist feminism believes which the challenge is capitalism that has intensified patriarchy by concentrating wealth and power in the hands of men (Maciounis and Plumber 2012:409). Socialist feminists argue that, historically, women were kept out of the labour force due to childbirth and thus believe that both gender roles and class oppress women (Bruckmuller, Ryan Haslam 2014:4; Riberro, Bosch and Becker 2013:35).Therefore, argue that the bourgeois family must be restructured to end the domestic slavery of women and that the only way to achieve this basic transformation of society is for women and men to pursue their personal liberation together as opposed to the liberal feminists' idea of individually. They believe that there is division of labour when it comes to gender role expectations. They believe that two classes of people exist: the bourgeoisie, which is made up of men and the proletariat, which is made up of women.

2.13.3 Radical feminism

The radical feminists argue that liberal feminist and socialist feminist reforms are inadequate. They look at the liberal feminist reforms as shallow and the socialist feminist revolution as insufficient to end patriarchy (Maciounis and Plumber 2012:409). Radical feminists focus on patriarchal forms of power that are fixed in the bureaucratic organization such as norms and values that prescribe women's subordination. Radical feminists believe that gender equality can be achieved only by eliminating the cultural notion of gender and can be achieved by raising women's consciousness of their domination rather than reforming legal, social and other institutions.

2.14 Gaps in feminist views

Feminist theory is one of the theories that have contributed significantly to creating an awareness of women's problems around the world. Ideally, a unanimous view of gender equality would have been the best option to enhance women's progress. The fact that Liberal, Socialist/Marxist and Radical feminists look at gender inequality in different ways is problem because there is disagreement amongst them about suitable political action. For instance, Liberal feminism is interested in equal opportunities and access to resources, while Social feminism advocates for economic and gender transformation. Lastly, radical feminism argues that transformation can be achieved by raising women's consciousness of their domination rather than reforming legal, social, and other institutions. The researcher believes that rather than adopting such different views on the issue, a unanimous approach to gender equity would be the ideal way to help address gender inequality in the work-place.

2.15 Challenges facing gender equity

Gender equity at work can be viewed in different ways and is one of the most challenging situations to change (Silander, Haarke and Linderberg 2012:12). Gender inequality is a feature of social relations in most societies. It is linked to poverty,

violence, the labour market, health, housing and education. It structures the relations of production and reproduction and is inextricably linked to knowledge construction and dissemination. Yet there has been little sustained attention globally to find out the challenge facing gender equity at the workplace in general and higher education in particular. It has been left largely to feminist academics to record and account for the persistent inequalities and gender power relations of academic life (Morley 2005:2). According to Morley (2005:2) the challenge for gender equity has given rise to the formation of a partnership with gender scholars in Nigeria, Sri Lanka, South Africa, Uganda and Tanzania to begin to plan and evaluate interventions for gendered change in areas such as; curriculum transformation, staff development Policy networks and transfer are strong across the Commonwealth. According to Onsongo (2009:2), attempts on gender equity were made by the 1998 UNESCO World Conference on Higher Education by demanding the elimination of all gender stereotyping in higher education at all levels and in all disciplines in which women are under-represented as well as increase of women's active involvement in decision-making. As good as this may sound, it is important to note that equity at the workplace is still a challenge.

According to Dominica (2004: 5) one of the challenges facing gender equity is that government resource allocation to the bureau remains minimal. He argues that gender perspective is not routinely incorporated in sectoral or national plans. Hence, training and sensitization at all levels is a pre-requirement. Another study conducted in the US by Aderson (2011:5) found out that the long-term challenges faced by women resulted from minor distinctions in hiring, promotion and evaluation. Teigen (2012:3) identifies three main reasons why gender equity is a challenge: Firstly, there is a lack of positive action policies on equal promotion procedures, as well as poor monitoring of authority in day to day work: Secondly, challenges on family/redistribution policies in parental leave policies, and kinder-garden; and finally, employment segregation patterns exist where-by women dominate the public sector while men dominate the private sector. He points out that 70% of the public sector is women, while less than 40% of women were in the private sector. This implies that there is a problem when it comes to employing women in the private sector.

In the case of South Africa, the struggle for gender equity started way back in 1994 by the government, with numerous activities to eliminate the unequal past and to

reposition the country for the future. The transformation agenda was articulated in documents such as the Education White Paper 3: A Programme for the Transformation of Higher Education (1997). The Green Paper for Post-School Education and Training (2012) was also introduced, which focused on the transformation and overcoming the inequities of the past, as well as developing a higher education system so that it would make a far greater contribution to social, economic and political development: Affirmative Action which refers to a body of policies and procedures designed to eliminate discrimination against marginalized groups including ethnic minorities and women. Its main objective was to redress the effects of past discrimination (Onsongo 2009:2; the Green Paper for Post-School Education and Training S.A. 2012: 8; and the White Paper on Transformation of Higher Education S.A. 1997:10). Despite these transformation plans and policies that having been developed, gender equity has still not been accomplished. Clearly there is room for further improvement.

2.16 Conclusion

In this chapter, the researcher addresses the underrepresentation of women in top positions at the workplace and higher education as well as the factors that retard/promote the progress of women. The chapter also looks at various policies in place to support women in higher education. In the course of examining the factors influencing the career progression of women in higher education, the researcher has looked at the functions of management and what management is in order to throw light on the duties that top managers perform and to know whether these positions are too demanding for women. Public management and higher education functions have been discussed as well as human resource management functions and how they relate to gender. Finally, the reason why gender equity has not been attained has been discussed and areas that still have concerns have been raised.

The literature explored has revealed that there are a number of factors that influence the progress of women both nationally and internationally. It has also been discovered that lots of suggestions and policies have been adopted to help promote women to rise in their careers. Some of the recommendations are quite relevant to adopt or rather adjust by policy makers, institutions and women themselves to

improve their careers in terms of occupying top positions in the workplace. This study has also recommended an additional input on how to help promote women in their research. That will be addressed in chapter five.

Chapter four presents the analysis and the interpretation of the research findings in line with the various literature explored.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research approach taken in this study. It outlines the research design, target population, sampling method, measuring instrument, recruitment process, data collection method, data analysis, pre-test, limitations, confidentiality and anonymity, validity and reliability, and ethical consideration. The research design insured the data collection, findings, conclusion and recommendation

3.2 Aim of the study

The purpose of this study is to examine the factors influencing the career progression of women in higher education, especially at DUT.

3.2.2 The objectives of this study were:

- To examine the career progression of women in higher education from local and international perspectives;
- To investigate the perceptions of women staff at DUT concerning the factors that promote or retard their progress;
- To analyze DUT's current policies in relation to staff development, employment equity, appointment and promotion of staff at the university, and how these policies affect the progress of women at the university; and
- To recommend policies which would enhance the career progression of women in higher education.

3.3 Research questions

- What is the experience of career progression of women in higher education from national and international perspectives?
- What are the perceptions of a sample of female staff at DUT regarding their own progress?
- What are the policies in place to support women in higher education in general and at DUT in particular, and how do these policies contribute to the career progression of women?
- What additional factors can be considered when formulating policies to support the career progression of women at the Durban University of Technology in particular and higher education in general?

3.4 Research design

According to Creswell (2008:3), research designs are plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collection. May (2013:98) noted that the research design provides the framework for the collection and analysis of data from a population. Sekaran and Bougie (2013:95) also define research design as a blueprint for collection, measurement and analysis of data, based on the research questions of the study. According to Sekaran and Bougie (2013:96-97), there are basically three different types of research studies: These are exploratory study, descriptive study and causal study. Sekaran and Bougie (2013:96-97), define the various studies as follows:

- **Exploratory study:** An exploratory study is undertaken when not much is known about the situation at hand, or no information is available on how similar problems or research issues have been solved in the past.
- **Descriptive study:** Descriptive studies are often designed to collect data that describe the characteristics of persons, events or situations. Descriptive research is either quantitative or qualitative in nature.

- **Casual study:** A causal study tests whether or not one variable causes another to change. That is, the researcher is interested in delineating one or more factors that are causing the problem.

This study was descriptive and the method that was used was a mixed method. The researcher chose a descriptive approach because a descriptive study describes the characteristics of persons or situations (Sekaran and Bougie 2013:96-97). Also, descriptive study was used based on the following advantages; to understand the characteristics of a group in a given situation (career women at DUT); to think systematically about aspects in a given situation; to offer ideas for further probing and research; and finally to help make decisions relating to the specific problem relating to the factors influencing the progress of women (Sekaran and Bougie 2013:96-99).

Mixed method research, according to Johnson (2007:123) as cited in Norman and Lincoln (2013:132), is the type of research in which a researcher or team of researchers combine elements of qualitative and quantitative research approaches for the broader purpose of understanding and validation. Gray (2009:204) also defines mixed method research as the collection or analysis of both qualitative and quantitative data in a single study in which the data is collected chronologically Barbour (2014:335) defines mixed method research as a research design which seeks to combine different methods. It may be both quantitative and qualitative (often surveys and semi-structured interviews).

A mixed method design was chosen because it allowed the researcher to gain a richer contextual understanding of the phenomenon being researched. It also strengthened the validity of the findings (Gray 2009:204). Another reason for using the mixed method was to compensate for the perceived shortcomings of a standalone method, since the mixed method provides a more complete picture or enhanced coverage (Barbour 2014:206).

Based on the advantages of mixed method research, the researcher used both qualitative and quantitative approaches. Questionnaires with open ended and closed

ended questions were used. A quantitative technique was used to provide information on the biographical information of female staff at DUT, perceptions of the career progression of women at DUT, policies and career motivation at DUT, and factors affecting or impeding the progress of women at DUT; the qualitative technique was applied through open-ended questions, It provided other views and other key information from the participants and other key information.

Since the study was descriptive in nature, a case study method was used. According to Yin (2009), cited in Sekaran and Bougie (2013:103), a case study is an empirical investigation of a particular contemporary phenomenon within its real-life context. Rule and John (2011:7) note that a case study allows the researchers to examine a particular instance in a great deal of depth, rather than looking at multiple instances rapidly. It was in this regard that the researcher focused on the DUT as a case study, instead of examining the progress of women in all the universities in South Africa. Also, the reason for using the Durban University of Technology as a case study was because this particular study has not previously been carried out in the institution. Secondly, it was also based on the fact that DUT has policies in place to support the employment equity policy but its statistics do not show women progress. The researcher thought it would be important to access the progress of women as well as the policies in place. Moreover, the fact that the researcher is a full time student at the DUT made it easier to access information.

3.5 Target population

According to Gerard (2013:76), the term 'population' in social science refers to the units of interest the researcher wishes to investigate, while a target population defines those units for which the findings of the survey are meant to be generalized (Cox 2013:3). In this study, the population comprised of all women at the Durban University of Technology. The target population was female academic and administrative staff. According to Sekaran and Bougie (2013:243), a target population is necessary because it is not easy to collect data from the entire population. This helps to reduce fatigue and errors. Support staff were not included in the study. The reason why this study focused only on academic and administrative staff is that they are regarded as scholars who facilitate knowledge and management

within higher education institution. Since they are the ones who produce skills and knowledge and also manage the running of the institution, it was necessary to investigate their career progression and positions that they occupy at the university, in order to know whether or not progress is being made.

3.6 Sampling method

This study used the probability sampling technique. According to Sekaran and Bougie (2013:254), probability sampling is when all the elements (i.e. each person) in the population have an equal chance of being chosen as a subject. The fact that each subject will have an equal opportunity of being chosen without any kind of bias from the various groups gives a high generalizability to the findings. A stratified random sampling procedure was used to group the population into academic administrative groups. A random sample was taken from each stratum.

This procedure was used because tracing the parameters of different subgroups within a population would not be possible without stratified random sampling procedures (Sekaran and Bougie 2013:249). According to Sekaran and Bougie (2013:249), stratified random sampling is a method whereby the population is first divided into common selected groups that are relevant, appropriate and meaningful in the context of the study. In other words, it involves stratifying the elements along meaningful levels and strata (Sekaran and Bougie 2013:249-250). For example, the women in academia and administration were divided into seven categories: Instructional/ Research Professional (academic); Executive/ Administrative/ Managerial Professional; specialized/Support Professional; Technical Staff; Non-Professional Administrative; Crafts/Trade and Service staff (administrative staff). Members were drawn randomly from each of the group or strata using the stratified random sampling technique. The subjects that were drawn from each group or strata were proportionate to the total number of females in that stratum.

3.6.1 Sample size of the study

According to Sekaran and Bougie (2013:398), the sample size of a study is the actual number of subjects chosen as a sample to represent the population

characteristics. According to Sekaran and Bougie (2013: 246), the decision on how large a sample size should be is based on six factors:

- The research objective;
- The extent of precision desired (the confidence interval);
- The acceptable risk in predicting that level of precision (confidence level).
- The amount of variability in the population itself;
- The cost and time constraints and
- In some cases the size of the population.

In this study, the total number of female academic and administrative staff at the Durban University of Technology was 693 according to the Human Resource statistics (2013:103). The sample size of the study was 250 women based on the six factors provided by Sekaran and Bougie (2013: 246) on how large a sample size of a study should be, as well as the generalized scientific guideline for the sample size decision by Sekaran and Bougie (2013:270) which states that the sample size of a given population is determined by the level of precision and confidence desired in estimating the population parameters. It includes the variability in the population itself and the cost-benefit. Precision refers to how close we estimate the population parameter based on its sample statistic while confidence denotes how certain the estimates will really hold true to the population (Sekaran and Bougie 2013:261-262). Precision and confidence were used because it gave hope to be fairly “on target” (Sekaran and Bougie 2013:261-262). This implies that the researcher’s confidence level in estimating the population limit was valid. Table 3.1 below further demonstrates how samples were selected.

Table 3.1

Academic and Administrative staff sampling method (according to the DUT Human Resource statistics)

Academic staff			
Occupational category	Female	Proportionate sampling (40% of	Sample drawn

		the element was taken)	
Instructional/Research Professional	271		100
Administrative staff			
Occupational categories	Female	Proportionate sampling (40% of the group was be taken)	Sample drawn
Executive/ administrative/ Managerial Professional	8		2
Specialized/ Support Professional	76		25
Technical Staff	49		15
Non-Professional Administration	273		103
Service Staff	16		5
Total number of administrative (Non-Instructional staff).	422		150
Total number of academic and administrative staff.	693		250

Source: Self-generated by the researcher

Table 3.1 shows that out of 271 female academic staff, 100 women were sampled, while 150 women out of 422 were sampled from the administrative staff. The subjects drawn from each stratum were drawn using the proportionate stratified random sampling procedure. According to Daniel (2012:12), in proportionate

stratified sampling, the number of element allocated to the various strata is proportional to the representation of the strata in the target population, this mean that the size of the sample drawn from each was proportionate to the relative size of that stratum in the target population. It was in this context that the researcher chose this method as being more suitable and representative for the study.

3.7 Data collection method

A survey was used for data collection via a questionnaire. A survey is a system for collecting information from or about people to describe, compare or explain their knowledge, attitudes, and behavior (Frink 2003, cited in Sekaran and Bougie 2013:102). A survey was used because the researcher wanted a comprehensive and detailed view, as well as factual information from the population sampled.

According to Denscombe (2013:13-48), there are four main advantages to be gained from the use of surveys in social research. Surveys focus on empirical data that are based on real-world observations. In other words, surveys are associated with getting information “straight from the horse’s mouth” (Denscombe 2013:13-48).

A survey can collect both quantitative and qualitative data. Quantitative data is used for a particular method such as self-completion questionnaires which can generate large volumes of quantitative data that can be subjected to statistical analysis. Also, the good thing about the survey is that, it can as well produce qualitative data as well (Denscombe 2013:13-48).

Another advantage of using a survey is that it has wide and inclusive coverage. This is true for large-scale questionnaire surveys and for small- scale interview surveys. In the case of large-scale questionnaire surveys, the extent of coverage is an advantage to getting representative data from which generalization can be made about the wider population. In the case of small-scale interview surveys, the sampling techniques are used based on the researcher’s choice and allows them to build up a picture based on data that includes the full range of relevant items or people (Denscombe 2013:13-48).

Lastly, survey research is a sometimes efficient and relatively inexpensive means of collecting data. For instance, the only cost involved in a small- scale survey can often be the researcher's time. A large-scale survey can produce a mountain of data in a short time for a relatively low cost.

According to Denscombe (2013:13-18), Neuman (2014:344), and May (2013:102), there are different types of surveys. These are:

- **Telephone surveys:** This method is very popular and about 95% of the population can be reached by telephone (Neuman 2014:345). Neuman defines telephone survey or interview as a process whereby an interviewer calls a respondent (usually at home), asks questions and records answers.
- **Mail or self- administered surveys:** According to May (2013:102), mail or self-completion questionnaires are intended for the respondent to fill out themselves, with a covering letter explaining the purpose of the questionnaires and their confidentiality and anonymity. They are administered by giving or mailing questionnaires directly to respondents (Neuman 2014:345).
- **Face to face surveys:** Face-to face surveys involve direct contact between the researcher and individual respondents. They normally make use of various forms of questionnaires or interviews (Denscombe 2013:16).
- **Observational surveys:** Observational surveys are used to make detailed, factual records of specific behaviors, events and settings and they generally employ a systematic behavior schedule to gather the data (Denscombe 2013:16).
- **Web survey:** this type of survey is normally done using internet or email and it is normally done by the presentation of a page of paper but on the computer screen (Neuman 2014:347).

- **Survey of documents:** This type of survey is to access documents such as historical documents, newspapers, company reports, committee minutes, as well as photographs and films. Authorization to view the documents is needed because some of the documents, such as health records or commercially and politically sensitive information, might be restricted for ethical reasons (Denscombe 2013:18).

In this study the instrument that was used by the researcher was a self-administered or self-completion questionnaire. The main reason for using a self-administered questionnaire was based on the following advantages posited by Denscombe (2013:13-48):

- With self-administered questionnaires, the researcher can collect all the completed responses within a short period of time;
- Any doubts that the respondents have on any question can be clarified on the spot;
- It gives the researcher the opportunity to introduce the research topic and motivate the respondents to offer their frank answers; and
- Administering the questionnaire does not require as much skills as interviews do and it can be administered to a large number of individuals at the same time (Sekaran and Bougie 2013:147).

The above advantages were considered when deciding to administer the questionnaire to the respondents.

3.7.1 Questionnaire format

According to Sekaran and Bougie (2013:147), a questionnaire is a reformulated, written set of questions to which respondents record their answers, usually within closely defined alternatives. This instrument was chosen because the study was descriptive and, most importantly, because it was convenient to gather data from a large number of respondents simultaneously. The instrument was also efficient because it helped to establish understanding and motivate respondents to answer the questions, since doubts were clarified immediately. It was also less expensive when administered to groups of respondents; a response rate of almost 100% was

ensured; and lastly, the anonymity of respondents was high (Sekaran and Bougie 2013:148; Kawulich and Garner 2013: 101).

The questionnaire comprised open-ended and closed-ended questions, in order to obtain appropriate information. With the open-ended questions, the respondents were asked to fill in or to complete the blank spaces on the questionnaire. Closed-ended questions, the respondents were asked to tick the appropriate alternatives that were given by the researcher. The questions were structured using likert and nominal scale.

The main aim of using open-ended questions was to enable the respondents to freely express themselves in their own words in the lines or blank spaces provided. In addition, Kawulich and Garner (2013:108-9) note that open-ended questions provide a great deal of flexibility for the respondents, and more detailed information can be provided. They are also excellent for identifying problems, suggesting and exploring topics in depth. In the case of closed-ended questions, the respondents were asked to select an answer from the list provided in order to provide a greater uniformity of responses which would be easier to process. Furthermore with closed-ended questions, the results obtained are consistent and easier to analyze statistically (Kawulich and Garner (2013: 108-9). All the questions were clear and easy to complete. The questions were structured based on the objectives to be attained. All questions were in English, and were answered in English since the medium of communication is English.

3.7.2 Distribution of questionnaires

In order to get the actual sample size of the study, which was 250, 276 questionnaires were distributed. These questionnaires were distributed to the 6 faculties and 6 units/support departments of the Durban University of Technology. A total of 109 questionnaires were given to the six faculties, while 169 questionnaires were distributed to the six unit or departments. The researcher went to each faculty and unit and then randomly distributed the questionnaires to the different departments under those faculties and units. The decision on how many questionnaires to be given to each faculty and unit was disproportionate. With

disproportionate stratified random sampling, decisions are made when some strata or stratum are too small or large (Sekaran and Bougie 2013:250). As mentioned earlier, this method was used because the researcher believed it was more suitable and representative for the study, since all the female staff in each of the faculties and units/ support departments were not the same in terms of numbers. As such, some faculties and units had more questionnaires than the others. The table below shows how questionnaires were distributed.

Table 3.2: Distribution of questionnaires in various faculties

Faculties	Random distribution of questionnaires per faculty
Faculty of Accounting and Informatics	20
Faculty of Arts and Design	20
Faculty of Engineering and the Built Environment	20
Faculty of Health sciences	22
Faculty of Applied Sciences	23
Faculty of Management Sciences	25
Total	130

Table 3.3: Distribution of questionnaires in various units or departments

All units or departments	Random distribution of questionnaires per unit or department.
Academic support	29
Technology, Innovation	

and partnerships department	28
Institutional support department	29
Institutional planning department	28
Projects and services department	28
Student services Department	28
Total	170
Total number of questionnaires per faculty and unit	$130 + 170 = 300$

Source: self-generated by researcher.

Table 3.3 shows that a total of 130 questionnaires were given to the six faculties while 170 questionnaires were distributed to the six unit or departments of DUT. The total number of questionnaires that was given out by the researcher was 300. Out of this, the researcher received 248.

3.8 Recruitment process

The researcher started by writing a letter to the DUT research office requesting permission to conduct the research in the institution. For the committee to make an informed decision a copy of the research proposal, proof of ethical clearance, a copy of the questionnaire and informed consent, and covering letter was provided by the researcher. The researcher received the letter after one month via email. After permission was granted by the university, the respondents were personally approached with a letter that explained the purpose of the study. Before the questionnaire was given, the researcher started by introducing herself to the participants and stated the purpose of the research and its significance to them. The respondents who were willing to fill in the questionnaires were given the

questionnaires and these were collected, based on the various appointments that were made by the respondents.

3.9 Measuring instrument

The measuring instrument used in this study was a questionnaire. A self-administered questionnaire consisting of open-ended and closed-ended questions was used to help in the evaluation of the issues under study. The questionnaire had three different types of scaling such as; Nominal scale, ordinal scale and Likert scale. According to Sekaran and Bougie (2013:211), a scale is a tool or mechanism by which individuals are distinguished as to how they differ from one another on the variables of interest to a study. The chosen scale was structured as follow:

- **Nominal scale:** A nominal scale was used to obtain qualitative data. According to Gray (2009:578), a nominal scale describes characteristics that have no numerical value. It is sometimes referred to as categorical scale. For example the questions were structured in this format:
 - Name of faculty-----
 - Name of department-----
 - Name of units-----
 - Participant's opinion-----
 - Marital status-----
 - Age groups-----
 - other (specify)-----

Six questions were asked using this method and participants were required to fill in the blank spaces in their own word.

- **Ordinal scale:** According to Babbie, Halley, Wagner and Zaino (2012:19), an ordinal scale arranges variables in an order beginning from lower to highest and more to less. In this study, an ordinal scale was used to obtain quantitative data. Eight questions were asked using this method. The questions were ranked as follows: position, highest academic qualification,

employment duration and employment status beginning from the highest to the lowest.

- **Likert scale:** According to Sekaran and Bougie (2013:211), a Likert scale is a scale designed to examine how strongly respondents agree with a statement. A Likert scale was also used for questions regarding the factors affecting the career progression of women at DUT and its policies. The questions were structured as follows: the rating was from 1-5 such as: 1=strongly disagree, 2=disagree, 3= neither agree nor disagree, 4=agree, 5=strongly agree. Questions about the perceptions of the career progression of women at DUT, policies and career motivation at DUT, as well as factors affecting or impeding the progress of women at DUT were asked using this method. Seven questions were asked using this method and participants had to tick the appropriate answers.

3.10. Data Analysis

The data was analyzed using both quantitative and qualitative methods.

3.10.1. Quantitative data analysis

Quantitative studies emphasize the measurement and analysis of causal relationships between variables (Norman and Lincoln 2013). According to De Vaus (2014:148), quantitative analyses of survey data require that the answers to the questions be converted into numbers and classified into categories. This process of converting answers to numbers and classifying them is called coding. The method of collecting data was through closed-ended questions and data was analyzed statistically using the six main steps in coding and classifying quantitative questionnaire data (De Vaus 2014:148). These steps were as follows: all the information relevant to the study objective was identified, followed by the allocation of codes to each variable. Then, column numbers were allocated to each variable and a code book was produced and checked for code errors. Data was entered using SPSS. Finally, frequency distribution tables, histograms and bar charts were used for all the variables. Thereafter, appropriate descriptive statistics were

calculated, followed by necessary cross- tabulation or arrangement dictated by the objectives of the study.

3.10.2. Qualitative data analysis

According to Virginia and Clarke (2013:4), qualitative research is a non- numerical study. It is usually in the form of written words or video tapes, audiotapes and photographs. Qualitative studies emphasize on the qualities of entities' processes and meanings that are not experimentally examined or measured. The method of collecting data was through open- ended questions and the method that was used to analyze the data was the thematic method. The thematic method is a method for identifying themes and patterns of meaning across a dataset in relation to a research question (Braun and Clarke 2013:174). For instance, the researcher began by going through the data. Data was then sorted into different categories based on the common themes identified from the participants' responses. The different types of responses that were found were noted down on separate sheets of paper. After noting them down, the researcher separated the data into groups or themes with similar characteristics, beginning with the larger categories and then proceeding to the smaller ones.

Both methods were transformed using SPSS for IBM SPSS statistics (version 22) to determine the outcome of the findings. SPSS, according to Babbie, Halley, Wagner and Zaino (2012: 4), stands for “statistical product and service solutions” and it is the most widely used statistical package for the social and behavioral sciences. SPSS was chosen because it contains the statistical procedures necessary for most research projects and it also comes with complete data–handling organization capabilities and it is available for many different kinds of computers, such as Windows and Macintosh. The interpretation and explanation of the data was inductive, whereby the analysis was shaped by the researcher's standpoint and disciplinary knowledge (Braun and Clarke 2013:174).

3.11 Pre-testing

According to Gray (2009:579), a pre-test is a small- scale survey carried out before a large- scale one to evaluate processes and research tools such as a questionnaire. In this study, a pilot-test was done to find out whether there would be a problem of clarity that needed to be addressed before conducting the research proper. Furthermore, this was done to test whether the respondents would hesitate to answer, ask for clarification or suggest a different word; as well as to know the amount of time they would use in completing it. In this regard, a sample size of 10 questionnaires was given to women in the academic and administrative staff categories. The staff members were selected using the stratified sampling technique. The questionnaires were then distributed to the participants randomly in all faculties and units of the Durban University of Technology. In other words, the female staff members were selected using the same procedure as the actual research. Out of the ten pre- test questionnaires that were given, the researcher received feedbacks from eight and two questionnaires were not given back to the researcher. The respondents did not take long to respond to the questions and three out of the ten sampled respondents were hesitant at the beginning to take the questionnaire. Some of the respondents gave their suggestion at the end of the questionnaire. They asked for clarification certain word and some suggested questions were given. The errors that were found were corrected and some of the suggestions that were in line with the research objectives were considered by the researcher. The sample for the pre-test was not used as part of the research sample.

3.12. Delimitations of the study

Participants in this study were delimited to academic and administrative staff at the Durban University of Technology and the study was carried out on all DUT campuses. Male staff and support staff were excluded from the study. Also, the study was delimited to examining the career progression of women in terms of higher positions. Finally, the study sampled 250 women with the assumption that the results would be reflective of the general situation of women in the institution.

3.13 Limitations of the study

The limitation of this study was that the population under study was female academic and administrative staff only. Male and support staff's viewpoints were not included, which may be required in a broader study of the same topic. Secondly, the fact that the study was limited to the Durban University of Technology means that the results can only describe the career progression of women at the DUT and no other institution. Also, the fact that only a sample of 250 out of 693 women in academic and administrative staff position (Human Resource statistic 2013:3) was used implies that, a bigger sample of this same study may provide a comprehensive result of women's progress at DUT. Lastly, the results of the findings were limited to the period in which the study was conducted.

3.14 Confidentiality and anonymity

According to Henn, Weinstein and Foard (2009:94), confidentiality refers to how the researcher holds the data in confidence and keeps it from public consumption, while anonymity refers to the precautions taken to protect the identity of the subjects. Kawulich and Garner (2013:70), in their version, noted that anonymity means that the researcher does not know the identities of the participants while confidentiality means that the researcher knows but will not tell. Similarly, De Vau (2014:59) believed that anonymity means that the researcher will not and cannot identify the respondent. Confidentiality means that the researcher can match names with responses but ensures that no one will have access to them.

In this study, participants who agreed to fill in the questionnaires were assured of the confidentiality and anonymity of the research. The following measures were taken into consideration. No names were required on the questionnaire or mentioned when analysing the data. The questionnaires were kept in a confined place, to be destroyed after a period of 15 years. The research was only for academic purposes and the reports were kept in the department and the library.

According to De Vaus (2014:59) confidentiality and anonymity are very important in research for three main reasons:

- to improve the quality and honesty of responses, especially on sensitive issues;
- to encourage participants in the study and to improve the representativeness of the sample; and
- to protect a person's privacy.

3.15 Validity and reliability

Validity and reliability are elements that determine the quality of our measurement instrument in our research (Kawulich and Garner 2013: 80). According to Treiman (2009: 243), an indicator is said to be valid if it adequately measures the underlying concept. According De Vaus (2014:51), there are three basic ways to access validity: These are:

- **Criterion validity:** This approach compares how people answer a new measurement of a concept with existing, well-accepted measures of the concept. In other words, it compares the performance of a measure against a predetermined set of criteria (Kawulich and Garner 2013: 80). If the answers on the new and established measures are highly correlated, then it is usually assumed that the new measure possesses criterion validity (Gray 2009:157).
- **Content validity:** This approach emphasises the extent to which the indicators measure the different aspects of the concept. Content validity depends ultimately on how define the concept it is designed to test (De Vaus 2014:51)
- **Construct validity:** According to De Vaus (2014:51), this approach evaluates a measure by how well the measure conforms to theoretical expectations. Kawulich and Garner (2013: 80) also note that construct validity refers to the extent to which the operationalization of the research constructs taps into the actual theoretical constructs the researcher is trying to measure.

The validity of the study was tested using content validity. This method was used because it assists in testing the usefulness of a research model. It measures what the researcher thinks it should measure via designed questionnaires. Content validity was measured through questionnaires. The consistency of the questionnaires was established through a pre-test. The pre-test questionnaires were checked in order to ensure validity before the actual collection of the practical data for the study. This was done to determine if the terms were clear, simple and understandable in order to improve the questionnaire. Also to confirm the validity of the study, the researcher combined both qualitative and quantitative research approaches for the broader purpose of understanding and validation.

3.16 Reliability

Kawulich and Garner (2013:80) define reliability as the degree to which an instrument measures a concept the same way each time it is used under the same conditions with the same respondent. According to Neuman (2014:213-14), in order to achieve reliability, there are four things to consider: These are:

- A clear conceptualized construct: reliability increases when each measure indicates one and only one concept;
- Use of precise level of measurement: an increase in the level of measurement is more likely to be reliable than a less precise measurement because the latter picks up less detailed information;
- Multiple indicators: Another way to increase reliability is to use multiple indicators because two or more indicators of the same construct are better than one; and
- Pilot test: reliability can be improved by first using a pilot version of a measurement before applying the final version.

To confirm the accuracy of the instrument and to ensure the reliability of the study, the above methods of testing reliability were taken into consideration. For instance, pre-testing was conducted with 10 women from the academic and administrative staff. The aim was to estimate how reliable the instrument would measure the same subject under the same condition. In other words, it was to determine if there was consistency. To ensure reliability, multiple- item indicators were used, such as nominal scale, ordinal scale and Likert scale. Also, careful questions were asked and constructed properly to ensure easy understanding. Lastly, the fact that the questionnaires were carefully entered and analyzed by a statistician implies that the study is reliable.

3.17 Ethics in the research

According to Sekaran and Bougie (2013:13), ethics in business research refers to the code of conduct or expected societal norms of behaviour while conducting research. They note that ethical conduct applies to the organization and the members that sponsor the research; the researchers undertaking the research; and the respondents who provide them with the necessary data. According to De Vaus (2014:54), there are three broad sets of consideration in any survey research. These are: technical, practical and ethical considerations. Technical considerations involve ensuring that matters such as sample design, questionnaire construct and scale developments are as rigorous as possible. Practical considerations mean that the survey design must take account of realities such as budgets, deadlines and the purpose of the research, while ethical considerations also shape the final design of a survey. According to De Vaus (2014:56), there are five professional codes of ethics to be considered towards survey participants:

- voluntary participation;
- Informed consent;
- no harm;
- anonymity and confidentiality; and
- privacy.

In this study, the rights of human subjects and their freedom were taken into account. Their confidentiality, anonymity, privacy and voluntary participation were clearly explained to them in the letter of informed consent before the research was conducted. As such, no name of any sort was required on the questionnaires. Those who failed to answer the questionnaires or were not willing to participate in the research were not forced to do so. No harm was incurred.

Also, all the three sets of ethical consideration in a research were taken into account. For instance, technical considerations such as sample design, questionnaire construct, and scale development was done. Secondly, practical considerations such as budgets, deadlines and the purpose of the research were also considered. Lastly, ethical approval was sought as per DUT research protocol.

3.18. Conclusion

This chapter describes the research design and methodology that was used in the research to achieve the final result. The work of the following writers; Neuman 2014; Sekaran and Bougie 2013; May 2013, Daniel 2012; and Denscombe 2014 gave the researcher a better understanding on how to formulate and conduct research. The study used a case study approach and samples were obtained from academic and administrative staff using a probability sampling technique. Data was collected using a survey via questionnaires (quantitative and qualitative). The quantitative method was used to obtain a greater uniformity of responses which would be easier to process, while qualitative data was used to enable the respondents to freely express themselves in their own words. The questionnaires were analyzed using the SPSS for IBM (version 22). The next chapter (chapter 4) will present the findings of this study.

CHAPTER FOUR

RESEARCH FINDINGS AND DATA ANALYSIS

4.1 Introduction

This chapter presents the results and discusses the findings obtained from the questionnaire in this study. The questionnaire was the primary tool that was used to collect data and was distributed to women in various support departments at DUT. The data collected from the responses was analysed with SPSS version 22.0. The results will present the descriptive statistics in the form of graphs, cross tabulations and other figures for the data that was collected. Inferential techniques include the use of correlations and chi square test values, which are interpreted using p-values.

4.2 The Sample

In total, 300 questionnaires were dispatched and 240 were returned, which gave a 90.6% response rate.

4.3 The Research instrument

The research instrument comprised 50 items, with a level of measurement at a nominal and ordinal level. The questionnaire was divided into 5 sections which measured various themes, as illustrated below:

Section A – Biographical Information

Section B - Perceptions of Career Progression of Women at DUT

Section C – Policies and Career Motivation at DUT

Section D – Factors Affecting / Impeding the Progress of Women at DUT

Section E – General comments / suggestions

4.4. Reliability statistics

The two most important aspects of precision are reliability and validity. Reliability is computed by taking several measurements on the same subjects. A reliability coefficient of 0.70 or higher is considered “acceptable”.

The table 4.1 below reflects the Cronbach’s Alpha score for all the items that constituted the questionnaire.

Table 4.1 General comments / suggestions		Number of Items	Cronbach's Alpha
Section B	Perceptions of Career Progression of Women at DUT	3 of 3	.683
Section C	Policies and Career Motivation at DUT	6 of 6	.687
Section D1	The lack of progress of women can be attributed to ...	19 of 19	.710
Section D2	Promotion at your university is based on ...	4 of 4	.520
Overall		35 of 35	.663

The overall reliability score of 0.663 is only slightly lower than the recommended value of 0.700. This indicates a high (overall) degree of acceptable, consistent scoring for this research.

Most of the sections are also close to the minimum required value. Only section D2 has a value that is lower. This is mainly due to this being a newly developed construct with a small number of variables constituting the section.

4.5. Factor Analysis

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.

Each matrix table is preceded by a table that reflects the results of Kaiser-Meyer-Olkin (KMO) and Bartlett's Test. The requirement is that 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. Certain components are divided into finer components. This is explained below in the rotated component matrix.

4.5.1 Section B

Table 4.2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.617
Bartlett's Test of Sphericity	Approx. Chi-Square	130.66
	Df	3
	Sig.	.000

Table 4.3 Component Matrix^a

	Component
	1
The University Supports the career progress of women:	.735
Promotion trends at the university show strong support for women	.856

Management at the university understands the challenges women face	.758
--	------

Extraction Method: Principal Component Analysis.

a. 1 component extracted.

4.6. Section C

Table 4.4 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.751
Bartlett's Test of Sphericity	Approx. Chi-Square	233.70
		9
	Df	15
	Sig.	.000

Table 4.5. Rotated Component Matrix^a

	Component	
	1	2
Gender factors are considered when formulating policies.	-.063	.893
Staff members are well informed about the various policies at work relating to human resource	.408	.536
There are adequate policies in place to motivate women	.747	.230
Gender policies are periodically amended to address the challenges women face	.752	.258
The monitoring of and evaluation of policies implemented is normally carried out	.830	-.082
At my university, employment equity policies are applied	.358	.366

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 3 iterations.

4.7. Section D1

Table 4.6 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.702
Bartlett's Test of Sphericity	Approx. Chi-Square	688.62
	Df	8
	Sig.	.000

Table 4.7. Rotated Component Matrix^a

	Component						
		2	3	4	5	6	7
Limited opportunities are given to women to develop in their profession.	.133	.202	-.003	-.026	.162	.750	.101
Poor working relationships among staff and other departments.	.351	.557	-.263	-.084	-.008	.222	.300
Promotion to the next level is not based on employees' performance	-.065	.656	.126	.146	-.102	.011	.026
Men in top positions prefer to promote men to top positions than women	-.032	.704	.423	-.172	.122	-.021	.058
Women are not as strongly motivated as men to take on senior management positions	-.022	.207	.845	-.098	.147	.065	-.037
Women in top positions move to other cities	-.018	.148	.660	.307	-.044	.029	.121
Decision making at the university is more favourable to men than women	.036	.478	.191	.171	.063	.098	-.158
The university does not have sufficient leave and incentives for further studies	.236	.377	-.110	.142	.158	-.510	.298
Women do not show efforts to further their education	.066	-.042	.207	.722	.156	-.228	.053
Inflexible work schedules at the department.	.750	-.030	-.022	.156	.064	-.160	.077
Women at the top do not motivate other women to rise to the top	.186	.232	-.111	.672	.205	.153	.032
Excessive workload for staff	.779	.077	-.128	-.092	-.094	.084	.162
Lack of information about new positions	.102	.427	-.206	.296	.312	.110	-.494
Lack of flexibility and work schedule for staff	.771	.099	-.060	.202	.003	-.022	-.080
Childbearing, domestic responsibilities and family commitments	.668	-.057	.123	-.038	-.055	.101	.018

Women do not apply for higher position when advertised	-.136	.179	-.040	.211	.691	-.182	.120
Work interruption by senior colleagues without notification	.165	.047	.039	.166	.179	.092	.788
Senior and top management positions are too demanding for women	-.002	-.113	.179	.074	.731	.210	.022
The employment equity policy favours certain races	-.133	.161	.237	.424	-.297	.456	.239

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 10 iterations.

4.8. Section D2

Table 4.8 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.485
Bartlett's Test of Sphericity	Approx. Chi-Square	106.630
	Df	21
	Sig.	.000

Table 4.9. Rotated Component Matrix^a

	Component		
	1	2	3
Qualifications	.298	.163	.818
Promotion at your university is based on: Networking	.084	.793	.200
Race	-.250	.697	-.318
Experience in administration, teaching and research	.630	-.070	.092
Confidence	.656	.213	.146
Political affiliation	.394	.383	-.625
Merit	.711	-.172	-.087

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 6 iterations.

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. With reference to the table above:

- The principle component analysis was used as the extraction method, and the rotation method was Varimax with Kaiser Normalization. This is an orthogonal rotation method that minimizes the number of variables that have high loadings on each factor. It simplifies the interpretation of the factors.
- Factor analysis/loading show inter-correlations between variables.
- Items of questions that loaded similarly imply measurement along a similar factor. An examination of the content of items loading at or above 0.5 (and using the higher or highest loading in instances where items cross-loaded at greater than this value) effectively measured along the various components.

It is noted that the variables that constituted Section B loaded perfectly along one factor. This means that the statements (variables) that constituted this component perfectly measured the component. That is, each component measured what it was that it was meant to measure.

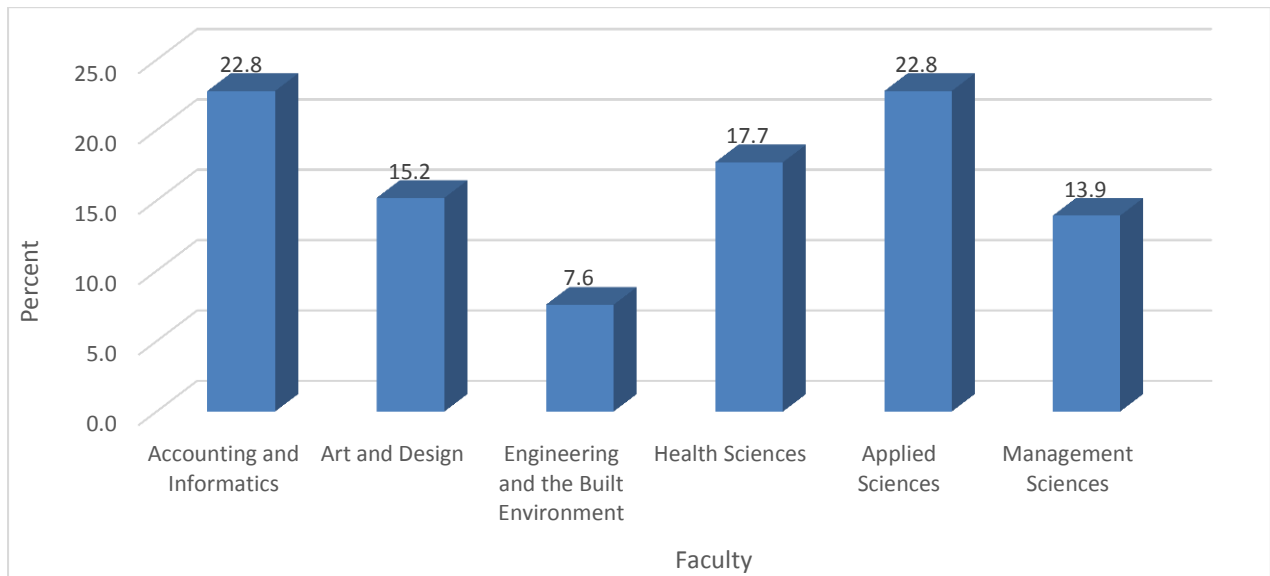
The remaining sections split along two or more components. This implies that respondents identified certain aspects of the sub-themes as belonging to other sub-sections.

4.9. Section A - Biographical data

This section summarises the biographical characteristics of the respondents.

Figure 4.1 Faculty distribution

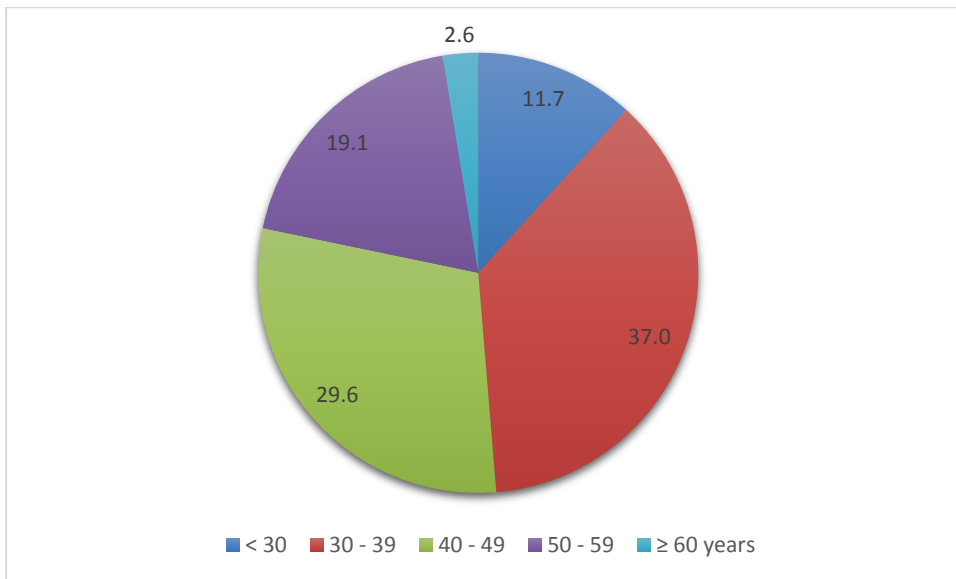
Figure4.1 describes the Faculty distribution



There were similar numbers of respondents from the faculties of Accounting & Informatics and Applied Sciences (22.8%), and from the following grouping of Art & Design, Health Sciences and Management Sciences. The smallest response was from the Faculty of Engineering and the Built Environment. Research has shown that there is continued gender discrimination in certain fields such as engineering, construction, mining and manufacturing (Toole and Meier, 2011:12). So, the researcher's main reason for asking this question was to find out whether it is the case of the DUT. The study highlighted that, women are few in this field (Engineering and the Built Environment).

Figure 4.2: The ages of the respondents

The age of the respondents is shown in figure 4.2

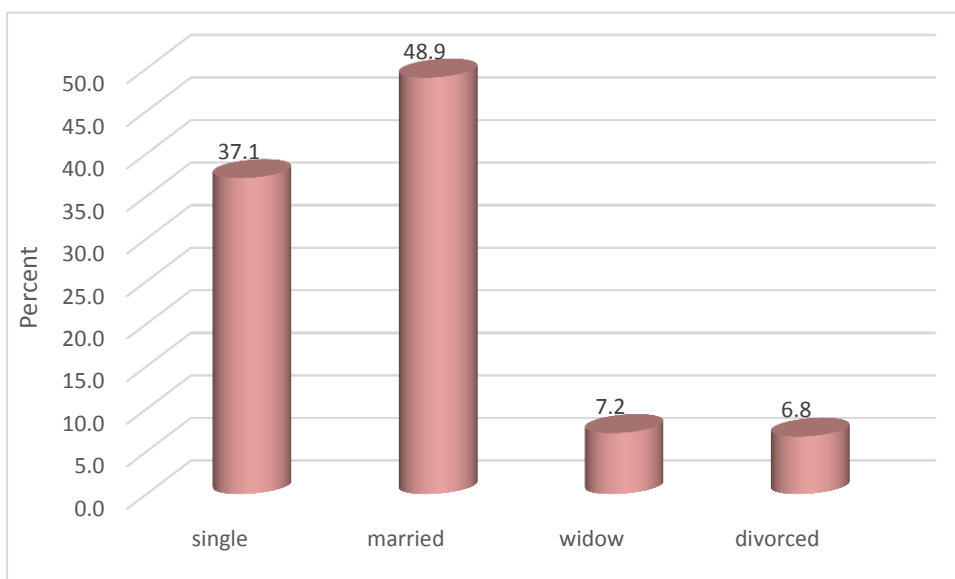


Approximately two-thirds of the samples (66.5%) were between the ages of 30 to 50 years. There were nearly twice as many respondents who were older than 50 years as there were who were younger than 30 years.

The constitution of the sample indicated a mature and experienced grouping of respondents. This is useful as the responses derived would have been from an informed opinion. This is also borne out in terms of the consistent scoring as observed for the reasonably high reliability values.

Figure 4.3: The marital status of women

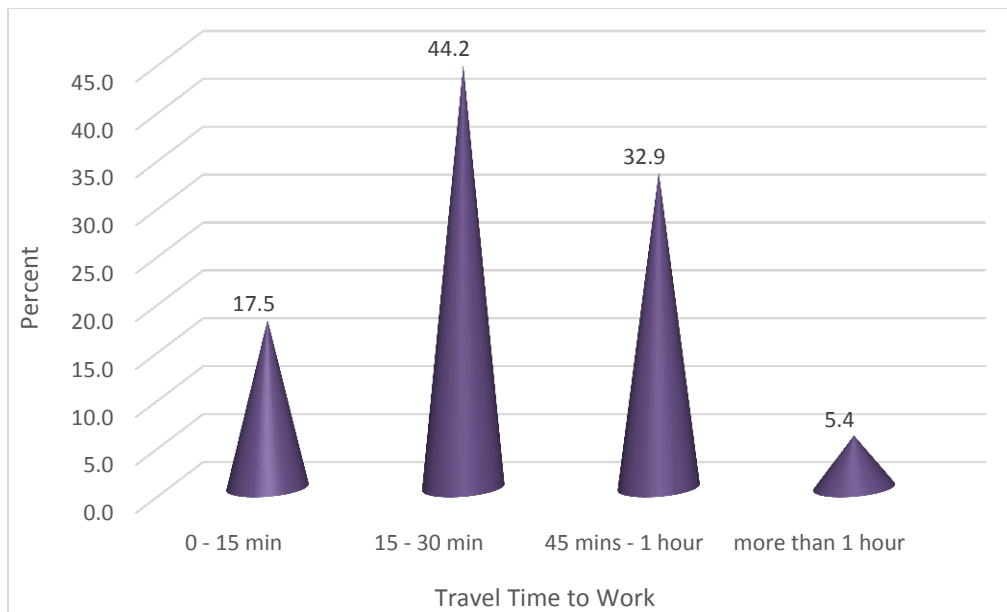
The marital status of the respondents is shown in the figure below



Nearly half of the respondents (48.9%) were married, followed by single women (37.1%) and then the least were divorced (7.2%) and widowed (6.8%). The fact that the majority of the career women at DUT are married can possibly place women in disadvantaged position. Research has shown that some cultures and traditions restrain the movement of women from travelling to places to attend conference presentations and research, and promotion largely depends on publication records (Botool and Sadjid 2013:13).

Figure4. 4 Travel time to work

Figure 4.4 below indicate the travel time to work.



- More than three quarters of the respondents (77.1%) had a travel time of between 15 minutes to 1 hour to work. The reason for this question was to find out whether commuting to work is a barrier to women’s progress in higher positions. However, the fact that the majority of the women travel just 15-30 minute to work implies that commuting to work is not a barrier to the progress of women at DUT.

Table 4.10 illustrates the types of positions held at work

Table 4.10 Types of position held at work

Instructional/Research professionals	
Professor	2.7
Associate professor	8.0
Senior lecturer	28.3
Lecturer	37.2
Faculty research coordinator	3.7
Associate directors	.9
HTC counsellors	1.8
Junior lecturer	15.0
HoD/Dean	2.7
Total	100.0
Occupational position for non-instructional professionals	
Senior Management	34.7
Junior Management	65.3
Total	100.0

The response rate was very low for the instructional/research professionals and they were as follows: Lecturer (37.2%); Senior lecturer (28.3%); junior lecturer (15.0%); Associate professor (8.0%); HoD/Deans (2.7%); Professor (2.7%); HTC Counsellor (1.8%) and Associate directors (9%). As for the occupational position for non-instructional professionals, the findings showed that senior management was 34.7%

while junior management was 65.3%. This indicates that there are fewer women in top positions at DUT.

Table 4.11 shows the highest qualifications.

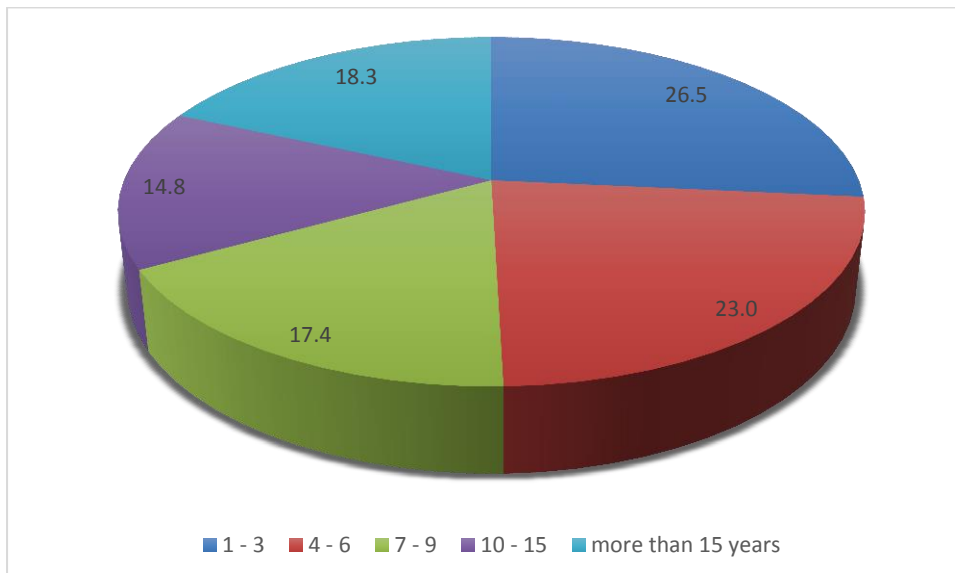
Table 4.11: The highest academic qualifications

	Percent
Diploma/Degree	17.2
B-Tech /Honours	34.4
Masters	30.4
Doctorate	18.1
Total	100.0

More than four-fifths (82.2%) had a postgraduate qualification. This indicates that the respondents possessed the necessary academic qualification and were therefore properly qualified to hold the positions they were holding at the university.

Figure 4.5: Employment Duration at DUT

The number of years that respondents have been employed at DUT is shown below



The purpose of this question was to find out if the duration of service of the female staff may affect their progress to higher positions or make it difficult to adapt to change. Figure 4.5 shows that 26% of female employees had worked in the

university for a period of over 15years, which is not the maximum duration of service at DUT and may not be the cause of women’s lack of progress to top positions.

Figure 4.6: Employment status

The employment status of the respondents is shown below.

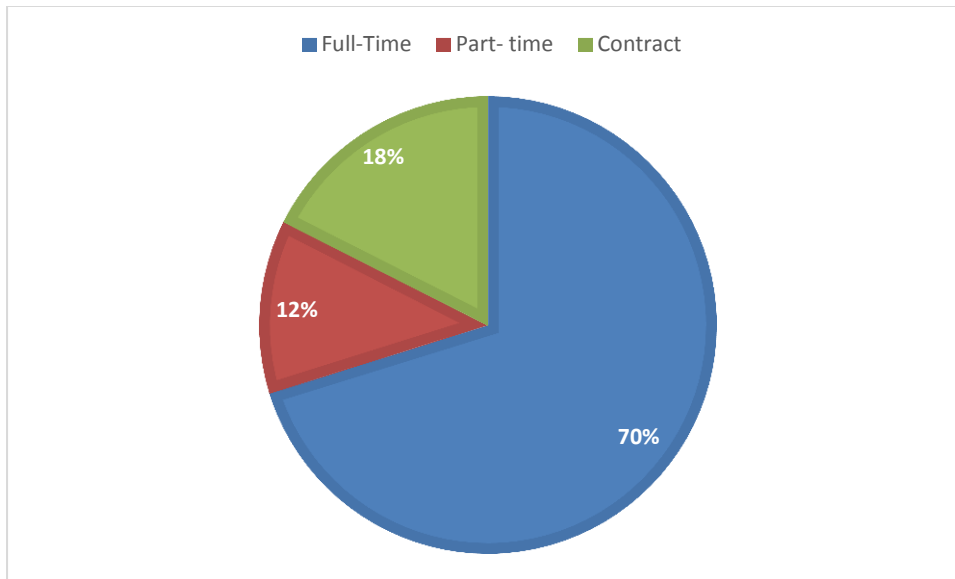


Figure 4.6 shows that 70% of the respondents were in permanent employment, followed by 18% part-time and 12% contract staff. This implies that most women who are employed at DUT are experienced. This also implies that there is an improvement in women’s representation in employment at DUT. The assertion is that access to equal opportunity in South Africa is discriminated does not apply to DUT.

4.10 Section analysis

The section that follows analyses the scoring patterns of the respondents per variable per section. Levels of disagreement (negative statements) were collapsed to show a single category of “Disagree”. A similar procedure was followed for the levels of agreement (positive statements). This is allowed due to the acceptable levels of reliability.

The first results were presented using summarized percentages for the variables that constitute each section. The results are then further analyzed according to the importance of the statements.

4.11 Section B - Perceptions of career progression of women at DUT

This section was intended to find out how women view career progression at DUT. Responses to this question are summarized in Table 4.12.

Table 4.12 Promotion at DUT is based on

Table 4.12 showed that promotion at DUT should be based on the following:

	Percent
Qualifications	29.0
Research publications	17.4
Work experience	22.8
Awards	1.2
Current job title	6.2
All of the above	23.2
Total	100.0

Table 4.12 showed that a majority of the respondents believe that career progress of women should be based on qualifications (29.0%), followed by work experience (22.8%). Approximately a quarter of the respondents (23.2%) believed that all of the factors were important. Research and publication was less important (17%), as compared to qualification and work experience. This finding is in line with the study by Ribeiro, Bosch and Beckers (2013:14) which indicated that frustration in research is one of the reasons for the lack of progress of women in higher education. It was reported that the reward package that they received for an article is not sufficient for them as compared to the amount of work and time involved.

Table 4.13 and figure 4.7 summarised the scoring patterns for the perceptions of career progress. Responses to this question are summarized below.

Table 4.13 Perceptions of the career progress of women at DUT

	Agree	Neither agree nor disagree	Disagree
The University supports the career progression of women	51.6	19.1	29.3
Promotion trends at the university show strong support for women	29.4	29.0	41.5
Management at the university understands the challenges women face	24.4	25.2	50.4

Figure 4.7 Perceptions of the career progress of women at DUT

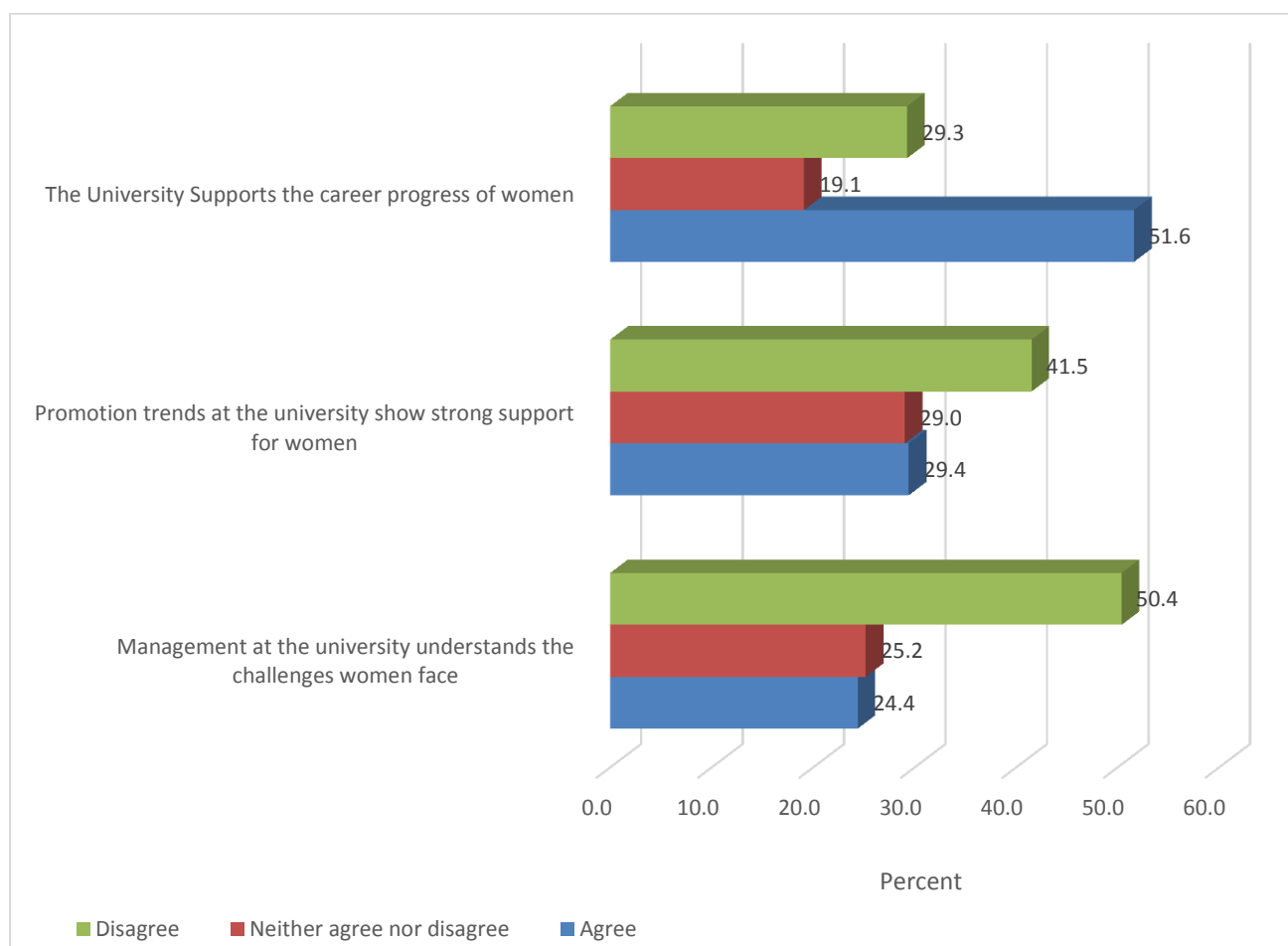


Table 4.13 and figure 4.7 show that even though more than half (51.6%) of the respondents believed that the university supports the career progression of women, similar numbers disagreed (41.5) regarding promotional opportunities, and 50.4% responded that management does not understand the challenges women face. The responses to these questions imply that the university does not show strong support for the promotion of women since they do not understand the challenges women face. This finding is similar to the assertion by Kern, Wright and Carrese (2011:4) that the institutional environment is one of the reasons for the lack of progress of women, due to the individualistic and non-collaborative nature of the work culture.

To determine whether the differences in the scoring patterns per statement were significant, chi-square tests were done by variable (statement). The null hypothesis tested the claim that there were no differences in the scoring options per statement. Table 4.14 presents the results below.

Table 4:14 Test statistics

	The University Supports the career progress of women	Promotion trends at the university show strong support for women	Management at the university understands the challenges women face
Chi-Square	40.854 ^a	7.508 ^b	32.792 ^c
df	2	2	2
Asymp. Sig.	.000	.023	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 82.0.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 82.7.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 83.3.

Since all of the sig. values (p-values) are less than 0.05 (the level of significance), it implies that the distributions were not even. That is, the differences between agreement and disagreement were significant. It is noted that the category of “No change” also contributes to the p-value.

4.12. Section C – Policies and career motivation at DUT

This section aimed at finding out whether the policies at the DUT motivate women in their career. The responses to this question are summarized on Table 4.15 and Figure 4.8 below.

Table 4.15 Policies and career motivation at DUT

	Agree	Neither agree nor disagree	Disagree
Gender factors are considered when formulating policies.	54.2	22.5	23.3
Staff members are well informed about the various policies at work relating to human resource	47.3	22.8	29.9
There are adequate policies in place to motivate women	29.6	26.7	43.8
Gender policies are periodically amended to address the challenges women face	22.0	26.9	51.0
The monitoring of and evaluation of policies implemented is normally carried out	29.0	25.7	45.3
At my university, employment equity policies are applied	52.2	26.5	21.2

Table 4.15 shows that the majority (54.2%) of the respondents agreed that gender factors are considered when formulating policies at DUT; 22.5% neither agreed nor disagreed; while 23.3% disagreed with this fact. This implies that DUT adhere the Employment Equity Act of South Africa (1998:6), which stipulates that employment policies, practices, procedures and the work environment identify any barriers which might be disadvantageous to people such as women, disabled people and black people.

- The second question shows that 47% of the respondents also agreed that staff members are well informed about the various policies at work relating to human resource while 29.9% disagreed with this view and 22.8% neither agree nor disagreed. The purpose of this question was to find out whether women's lack of progress was related to a lack of information about various policies, however, the findings revealed that it was not the case.

- The third question asked was whether there were adequate policies in place to motivate women in their careers. Almost forty four percent disagreed, 29.6% agreed while 26.7% neither agreed nor disagreed with this view. The study sought to find out this because studies elsewhere have revealed that there are insufficient policies in place to address gender issues (Elaqua, Beehr and Hansen 2009; Boushey and Farrell 2013; Stromquist 2013; and Coward 2010). This implies that there is a need for more policies to address this issue, especially policies related to study and sabbatical leave.
- The fourth question aimed to investigate whether gender policies are periodically amended to address the challenges women faced. Fifty on percent disagreed with this question; 22.0% agreed; while 26.9% neither agree nor disagreed. Therefore, the assertion by Davidson and Burke (2011:2) that there are great inconsistencies across countries when it comes to the interest and programmes to support women's career advancement is true. This may be the reason why Alvesson and Billing (2009:157) noted that managerial positions are more stressful to women than men. There is the need for management to look into this issue.
- The fifth question aimed to identify whether the monitoring and evaluation of policies implemented is normally carried out at DUT. Almost forty six percent said disagreed, 29.0% agreed, while 25.7% neither agreed nor disagreed. This is contrary to the DUT employment equity policy (2007:5), which stipulates that "*DUT is committed to reviewing on an ongoing basis all its policies and related procedures to ensure alignment with its Employment Equity Policy in order to identify good practices and discriminating barriers in all of its policies and related procedures*".
- Lastly, the respondents were asked whether employment equity policies at DUT are applied. Fifty two percent agreed, 21.2 disagree, while 26.5% neither agreed nor disagreed. This implies that the Durban University of Technology recognizes that affirmative action and employment equity is an integral part of this transformation and eradication of the discriminatory past.

Table 4.16: The chi square tests are as follows.

Table 4.16: policies and career motivation at DUT

	Gender factors are considered when formulating policies.	Staff members are well informed about the various policies at work relating to human resource	There are adequate policies in place to motivate women	Gender policies are periodically amended to address the challenges women face	The monitoring of and evaluation of policies implemented is normally carried out	At my university employment equity policies are applied
Chi-Square	48.892 ^a	22.963 ^b	12.025 ^c	35.371 ^d	16.196 ^d	40.465 ^d
Df	2	2	2	2	2	2
Asymp. Sig.	.000	.000	.002	.000	.000	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 83.0.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 80.3.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 80.0.

d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 81.7.

All of the chi square values are less than 0.05, indicating differences in the scoring options.

4.13 Section D – Factors affecting / impeding the progress of women at DUT

The aim of this section is to find out the factors affecting the progress of women at DUT. Responses to this question are summarized below.

Table 4.17: highlighted the factors attributing to the lack of progress of women

	Agree	Neither agree nor disagree	Disagree
Limited opportunities are given to women to develop in their profession.	46.1	16.9	37.0
Poor working relationships among staff and other departments.	49.4	17.7	32.9
Promotion to the next level is not based on employees' performance	45.8	19.2	35.0
Men in top positions prefer to promote men to top positions than women	33.5	36.8	29.7
Women are not as strongly motivated as men to take on senior management positions	25.6	23.1	51.2
Women in top positions move to other cities	25.0	34.7	40.3
Decision making at the university is more favourable to men than women	41.3	29.3	29.3
The university does not have sufficient leave and incentives to further studies	38.1	18.4	43.5
Women do not show effort to further their education	22.6	13.4	64.0
Inflexible work schedules at the department.	47.3	12.4	40.2
Women at the top do not motivate other women to rise to the top	36.0	13.8	50.2
Excessive work load for staff	64.4	8.8	26.8
Lack of information about new positions	44.7	14.5	40.9
Lack of flexibility and work schedule for staff	65.5	11.1	23.4
Childbearing, domestic responsibilities and family commitments	64.1	12.2	23.6
Women do not apply for higher position when advertised	23.5	15.1	61.3
Work interruption by senior colleagues without notification	35.9	24.9	39.2
Senior and top management positions are too demanding for women	17.2	24.7	58.2
The employment equity policy favours certain races	40.7	22.0	37.3

- The first question was to find out whether limited opportunities are given to women to develop in their profession. Forty one percent of the respondent agreed, 16.9% neither agree nor disagree, while 37.0% completely disagree. Barrett and Barrett (2010: 3) believe that the underrepresentation of women at senior levels is as a result of unequal treatment of men and women in the workplace and the outcomes of gender choices and career roles. This may imply that access to equal job opportunities is not fully achieved at DUT and maybe the reason for women lack of progress to top positions. So there is the need to address this problem.

- Secondly, poor working relationships amongst staff and other departments was investigated because research has shown that the lack of progress of women is as a result of this factor (Homeryr and Nzobe 2011:1). The finding of this question revealed that 49.4% agree, 17.7% neither agree nor disagree and 32.9% disagree with the statement. This may be one for the reasons of women underrepresentation at DUT.
- Thirdly, promotion to the next level is not based on employee performance. The responses to this question were as follows: 45.8% agreed, 19.2% neither agreed nor disagreed, while 35.0% disagreed to the fact. The answer to this question is in line with Meera and Deo (2014:8-22) findings, which indicate that women face barriers when it comes to hiring and promotion. If this is the case, women's representation in higher positions at DUT would continue to be impeded. Therefore management needs to address this issue.
- The fourth question was to find out whether men in top positions prefer to promote men to top positions rather than women. The response was 33.5% agreed; 36.8% neither agreed nor disagreed; while 29.7% disagree completely. This shows that the majority of the respondents are not sure if their underrepresentation in the top positions at the University is as a result of this.
- Studies have shown that women are not as strongly motivated as men to take on senior management positions (Haake, 2010:3). This question was posed to find out if it is also the case at DUT. The findings revealed that 51.2% of the respondents disagreed with the fact, 25.6% agreed; while 23.1% neither agreed nor disagreed. This implies that women's lack of progress at DUT is not as a result of lack confidence and lack of motivation.
- The respondents were asked if women under-representation in top positions was because women in top positions move to other cities. The majority of 40.3% disagree, followed by 34.7% who neither agree nor disagree and

25.0% who agreed. This shows that this factor may not be the reason for the low representation of women in their career at DUT.

- Moreover, 41.3% of the respondents agreed that decision making at the university is more favourable to men than women, while 29.3% agreed to it and 29.3% neither agreed nor disagreed. This is in line with the assertion by Boushey and Farrel's (2013:6) that working women are disadvantaged by lack of policy solutions on how to balance their domestic responsibilities and workplace activities, since women often take a larger share of family responsibilities.
- In addition, 43.5% of the respondents disagreed with the fact that the university does not have sufficient leave and incentives for further studies, while 38.1% agreed to it and 18.4% neither agreed nor disagreed with this fact. This implies that the under-representation of women at DUT is not as a result of insufficient leave and incentives for further studies.
- Furthermore, fewer women (22.6%) agreed that women do not show effort to further their education; the majority (64.0%) of them disagreed with this view and 13.4% neither agreed nor disagreed. This indicates that women's under-representation at DUT is not because of lack of effort to further their education. It also confirms the UNESCO Reports (2012:7) assertion that women perform the same as men, and at times even surpass them when it comes to earning university degrees.
- Research has shown that inflexible work schedules at the departments are one of the major reasons that hinder women from progressing to top position (Moley 2014; and Elacqua, Beennhr and Hansan 2009). From the responses collected, 47.3% agreed to this fact, followed by 40.2% who disagreed and 12.4% neither agreed nor disagreed. Even though the percentage difference between the women who were for and the ones who were against is not much, one can conclude that, this might be one of the factors that hinders the progress of women to higher positions at DUT.

- “Women at the top do not motivate other women to rise to the top”: The responses to this question showed that; 50.2% disagreed with this view, 36.0% agreed and 13.8% neither d nor disagreed with the question. This may imply that some women are a hindrance to the progress of their fellow colleagues.
- The question whether staff had excessive workloads was asked because research has shown that it is one of the factors that hinder women from progressing in higher education (Morley 2014: 8-12). The findings of this study revealed that the majority (64.4%) of the respondents agreed that there is an excessive workload for staff, 26.8% disagreed with this assertion; while 8.8% neither agreed nor disagreed with it. This implies that this factor is still a hindrance to the progress of women.
- The next question was whether lack of information about new positions was the reason for women under-representation: of the responses 44.7% agreed that Lack of information about new positions affect their progress; 40.9% disagreed with the view while 14.5% neither agreed nor disagreed. This indicates that some women at DUT do not even know when new positions are advertised.
- The question whether the was lack of flexibility and work schedule for staff was asked: A majority (65.5%) responded that lack of flexibility and work schedule is a hindrance to the progress of women at DUT, 23.4% disagreed while 11.1% neither agreed nor disagreed with the fact. This confirms the assertion of Eleaqua, Baennhr and Hansan (2009:286) and Morley’s (2014:14) findings.
- Another question was about childbearing, domestic responsibilities and family commitments. This question was posed because most researchers have indicated that childbearing, domestic responsibilities and family commitments is the main reason why women are underrepresented in their career (Boushey and Farell, 2009; Levine, Lin, Kern, Wright and Carrese 2011; Carvalho and Riordan 2011; and Alvesson and Billing 2009: 149). The study revealed that

64.1% agreed with this question, 23.6% disagreed while 12.2% neither agreed nor disagreed with the view. This implies that childbearing, domestic responsibilities and family commitments are still a major problem for the progress of women to rise to higher positions.

- The question whether women do not apply for higher position when advertised was asked: The majority (61.3%) disagreed with this fact; 23.5% agreed; and 15.1% neither agreed nor disagreed. This is conflicting with Haake's (2013:10) findings that revealed that women experience academic culture as being masculine and too competitive and therefore view the system as not suitable for them.
- The question on whether work interruption by senior colleagues without notification revealed that: Only 35.9% agreed with this question; 24.9% neither agreed nor, and 39.2% disagreed with it. This implies that the respondents were against this view.
- The respondents were asked if senior and top management positions are too demanding for women. This question has been proven by Gouws (2012:10) and Calvalho and Sarah (2011:2) as one of the reasons why women do not apply to senior management position. Contrary to their findings, the study revealed that 58.2% of the respondents disagreed with this fact; 17.2% agreed; while 24.7% neither agreed nor disagreed to the fact.
- Finally, the respondents were asked if the employment equity policy favours certain races. A majority of 40.7% agreed; 22% neither agreed nor disagreed; and 37.3% disagreed. This shows that the respondents believe that there is discrimination in terms of race at the workplace. This is in line with Meera and Deo's (2014:8-22) finding in the United States; Gabind (2011:34) and the SABPP Women Report (2011:13) in South Africa.

Table 4.18: illustrate the findings from the chi square tests

Table 4.18 Chi square test	Chi-Square	df	Asymp. Sig.	0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 81.0.
Limited opportunities are given to women to develop in their profession.	32.617	2	.000	
Poor working relationships among staff and other departments.	36.617	2	.000	
Promotion to the next level is not based on employees' performance	25.9	2	.000	
Men in top positions prefer to promote men to top positions than women	1.816	2	.403	
Women are not as strongly motivated as men to take on senior management positions	35.14	2	.000	
Women in top positions move to other cities	8.449	2	.015	
Decision making at the university is more favorable to men than women	6.95	2	.031	
The university does not have sufficient leave and incentives for further studies	25.013	2	.000	
Women do not show efforts to further their education	104.293	2	.000	
Inflexible work schedules at the department.	49.104	2	.000	
Women at the top do not motivate other women to rise to the top	48.259	2	.000	
Excessive work load for staff	115.64	2	.000	
Lack of information about new positions	38.153	2	.000	
Lack of flexibility and work schedule for staff	115.004	2	.000	
Childbearing, domestic responsibilities and family commitments	105.797	2	.000	
Women do not apply for higher positions when advertised	86.555	2	.000	
Work interruption by senior colleagues without notification	8	2	.018	
Senior and top management positions are too demanding for women	68.318	2	.000	
The employment equity policy favours certain races	13.966	2	.001	

The scoring patterns are different for all variables except one (0.403).

4.14 Section D

Table 4.19 highlighted the responses to promotion at DUT

Table 4.19: Promotion at your university	Agree	Neither agree nor disagree	Disagree
Qualifications	75.7	5.2	19.1
Networking	60.1	20.5	30.7
Race	57.9	19.0	23.1
Experience in administration, teaching and research	72.6	12.8	14.6
Confidence	47.5	19.7	32.8
Political affiliation	31.8	31.8	36.4
Merit	60.1	17.4	22.5

Most respondents agree that promotion at DUT is based on qualification (75.7%), and experience in administration, teaching and research (72.6%), followed by merit and networking (60.1%), race (57.9%). Only few respondents agree that promotion should be based on confidence (47.5%) and political affiliation (31.8%). This shows that promotion at DUT is of standard.

Table 4.20: highlighted the chi square tests responses to promotion at DUT

Table 4.20: Test Statistics

	Qualifications	Networking	Race	Experience in administration, teaching and research	confidence	Political affiliation	Merit
Chi-Square	192.035 ^a	25.239 ^b	53.66 ^c	152.082 ^d	22.939 ^e	.831 ^c	69.49 ^f
Df	2	2	2	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000	.000	.660	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 76.7.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 68.3.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 65.0.

d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 73.0.

e. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 66.0.

f. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 71.0.

All of the scoring patterns are significantly different, except political affiliation ($p = 0.660$).

4.15 Section E – General comments / suggestions

In this section, the respondents were asked to provide answers to the following questions:

The first question was; what do you think can be done to help you rise further in your career? The main suggestions that came up were: Employment should be based on merit and not connections; more training and development should be given to all staff (15.9%); more training and development for all staff (13.6%); more grants to support research (9.1%), study and conferences (6.8%); more flexible time for studies and time management (6.8%); work reduction (6.8%); Study and sabbatical leave (6.8%); and to sensitize women to further their career (6.8%).

The second question was to find out what other factors can be the cause of women's lack of progress at DUT? The majority of the respondents indicated that women's lack of progress is as a result of: lack of motivation (25.7%); fear of not coping with the workload (17.1%); and lack of support from supervisors, colleagues and departments (11.4%).

The third question was; what policies would you suggest to improve career progression at DUT? Most of the respondents responded as follows: Training and development policy (36.8%), policy on study and sabbatical leave (31.6%), finally, more policy to support women with children (21.1%).

What is your opinion about women's underrepresentation at DUT? The responses to questions were as follows: happy with their position (28.0%); No encouragement for study (20.0%); Lack of motivation and (16.0%); poor time management (8.0%) and insufficient policy to support women who are on contract (8.0%).

The researcher notes that not up to half of the respondents attempted these questions. However the little information or suggestions that were given were considered.

4.16 Correlations

Bivariate correlation was also performed on the (ordinal) data. The results are found in the appendix. The tables were too large to put here. The results indicate the following patterns.

Positive values indicate a directly proportional relationship between the variables and a negative value indicates an inverse relationship. All significant relationships are indicated by a * or **. For example, the correlation value between “Gender factors are considered when formulating policies” and “Staff members are well informed about the various policies at work relating to human resource” is 0.230. This is a directly related proportionally. Respondents agree that the more gender is considered, the more aware staff are about policies, and career progression.

The correlation values between “Staff members are well informed about the various policies at work relating to human resource” and “Poor working relationships among staff and other departments” is -0.198. That is, the more informed staff is, the less likely of poor working relationships.

4.17 Hypothesis testing

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 with a *.

The Chi square test was performed to determine whether there was a statistically significant relationship between the variables (rows vs columns).

The null hypothesis states that there is no association between the two. The alternate hypothesis indicates that there is an association. For example: The p-value between “Age” and “Promotion trends at the university show strong support for women” is 0.013 (which is less than the significance value of 0.05). This means that there is a significant relationship between the variables. That is, the age of a respondent does play a role in terms of how respondents perceive the promotion for women at the university. The direction of the scores can be obtained from the frequency tables in the appendix.

4.18 Conclusion

This chapter presented the data analysis and the interpretation of the research findings. Both qualitative and quantitative data analysis tools were used to extract information. The researcher presented the results in the form of tables and charts. Also, the statistical analysis was used to test the reliability and validity of the measuring tools.

The summary, conclusion and recommendations of this study will be presented in the chapter five.

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter presents the summary of the findings, conclusion and recommendations. It also suggests possible areas for future studies.

The objectives of this study were:

- To examine the career progression of women in higher education from local and international perspectives;
- To investigate the perceptions of women staff at DUT concerning the factors that promote or retard the progress of women; and
- To analyze DUT's current policies in relation to staff development, employment equity, appointment and promotion of staff at the university, and how these policies affect the progress of women at the university.

5.2 Summary of the findings

To achieve these objectives, data was collected from 250 female academic and administrative staff at the Durban University of Technology, using open ended and closed ended questions. The technique used to collect data was stratified random sampling. The summary below is based on the objectives and the research findings.

- The first objective was to examine the career progression of women in higher education from local and international perspectives. The study revealed that women are still under-represented. The findings and the statistics from the DUT Department of Labor workforce profile (2013:3) revealed that the progress of women as compared to men is still not at the same level. This means that the policy is not achieving its objectives.
- The second objective was to investigate the perceptions of women staff at DUT concerning the factors that retard their progress. The study revealed that

the factors that retard their progress are: limited opportunities are given to women to develop in their profession; poor working relationships among staff and other departments; decision-making at the university is more favorable to men than women; inflexible work schedules in the departments; excessive workload for staff; lack of information about new positions; lack of flexibility and work schedule for staff; childbearing, domestic responsibilities and family commitments.

- The third objective was to analyze DUT's current policies in relation to staff development, employment equity, appointment and promotion of staff at the university, and how these policies affect the progress of women at the university. Based on the questions asked, the study revealed that staff development/progress is still not at the same level as men even though gender factors are considered when formulating policies and staff members are well informed about the various policies at work relating to human resource. Also, it was confirmed that employment equity policies are applied at DUT. However, even though employment equity policies are applied at DUT, most of the respondents responded that there are inadequate policies in place to motivate women in their careers. They also noted that this might be because gender policies are not periodically amended to address the challenges women face. Even the monitoring and evaluation of policies implementation is not carried out regularly. Moreover, in terms of appointment and promotion of staff at the university, most of the respondents revealed that promotions should be based on qualifications and experience in administration, teaching and research. In summary, it is clear that DUT policies have not achieved their objectives since women are still under-represented.

5.3 Recommendations

Based on the findings of this study, the following recommendations are made to enhance the career progression of women in higher education. The recommendations are directed to the Management of the Durban University of Technology and to all career women.

5.4 Recommendations to the management of DUT

- **More training and development programmes for women**

There is a need for more training and development programmes for women at DUT. This will go a long way in changing the way women perceive themselves and gives them confidence in their own capacity to be effective leaders. These special programs should, however, be backed by government. Women should be encouraged to attend conferences, workshops and other short courses to widen their knowledge, skills, and attitudes. This will help to empower them to rise to the top.

- **To sensitize women to further their career**

This can be done by providing study and sabbatical leave, more flexible time for studies, workload reduction and to employ more staff since most lecturers are experiencing heavy workloads.

- **More policies to support women with multiple roles.**

The university needs more policies, regulation and infrastructure to help women resolve the tension between personal and professional roles. This can be done through reasonable provision of maternity leave and childcare centres within the institution. There is also a need to make management positions more flexible by finishing meetings on time and within working hours.

- **More support and incentives for women to undertake research**

The study found out that frustration in research is one of the reasons for the lack of progress of women at DUT. Therefore, the university needs to provide more support and incentives for women to undertake research. Secondly, there is the need to encouraging team work among staff so as to improve research output for women.

- **Insufficient policy to support women who are on contract**

The study found out that women on contract are not satisfied with their contracts and this affects their progress to top positions. Therefore, the university needs to come up with policies that ensure equal opportunities for all staff, such as policies on study and sabbatical leave. This will help to motivate them to think of advancing in their careers.

- **Effective monitoring, evaluation and review of policies**

After the policies have been formulated, there is a need to put in place mechanisms for monitoring and evaluation to make sure that the right procedures are followed in the selection and recruitment of staff to senior management. Those in charge of this duty at DUT are the Deputy Vice-Chancellor (Institutional Support)/Director (Human Resources). Information on all aspects of promotion criteria should be made known to all members of staff. Also, there is a need to monitor areas of equity and diversity in staff recruitment and promotion. Moreover, it is necessary to change the culture of higher education in order to enhance women's academic research capacity.

It is also advisable to regularly review policies relating to employment and working conditions at DUT, in order to address new problems that may arise. This is because it was observed that most of the policies were last amended in 2007, a few in 2009, and these have not been reviewed since then.

- **Periodical amendment of policies**

The findings revealed that gender policies were not periodically amended to address the challenges women faced. I would recommend that management should make sure that gender policies are amended periodically so as to address some these challenges.

5.5 Recommendation to all career women

Finally, the researcher will like to encourage all career women that despite the challenges that women are facing, they should continue to strive to reach positions of influence and power in the university in order to be part of the social change and economic advancement in the country. Secondly, women should remain committed to their own advancement and this can be achieved if women seek support from families and friends to assist them with their household chores.

5.6 Conclusion

The study set out to find out the factors influencing the career progression of women in higher education, with the Durban University of Technology as a case study. Based on the findings of the study, the following conclusions can be made: Women are under-represented at the Durban University of Technology; there is indirect discrimination against women in the appointment, recruitment and promotion of university management; and the decision making at the university is more favourable towards men than women. The study also discovered that career women experience a high degree of role overload which is associated with childbearing, domestic responsibilities and family commitment. Clearly, there is a need to change the culture of DUT in order to achieve equity in senior and top positions. Recommendations have been given to both the management and career women to help solve some of these problems. It is, therefore, important to note that what needs to be done in order to bring about change and equality is not only to implement laws (the Employment Equity Act), but also to ensure that the monitoring and evaluation of the policies implemented are carried out effectively, as well as reviewing the policies as stipulated.

The study lays no claim to have exhausted all that can be said about the factors influencing the career progression of women in higher education; neither does it claim to have exhausted all possible angles from which the research exercise has been carried out. It, however, sets the pace from where other researchers can continue and bring their own contributions to the subject.

References

Alvesson, M and Billing. 2010. *Understanding gender and organizations*. 2nd ed. Los Angeles: Sage

Anne, M. 2009. A few words in favour of cultivating incest taboo in the workplaces. 33(3): 551-558.

Batool, S.Q. and Sajid, M.A. 2013. Barriers faced by women managers at universities. *Middle-East Journal of Scientific Research*, 13 (3): 324-378.

Barrett, L. and Barrett, P. 2010. Women and academic workload: Career slow lane or workload? 6(1): 141-155. Available: i.c.barrett@sa/ford.ac.uk (Accessed 30 October 2014).

Bhandare, M.C. 2008. *The world of gender justice*. New Delhi: Har-Anand publications.

Boushey, A. and Farrell, J. 2013. A woman's agenda for the 21st century: *A dozen policies to promote economic security for women and their families*. Washington: Centre for American Progress. (Online). Available: <http://www.americanprogress.org/wpcontent/uploads/2013/05/FarrellTopPolicyIdeasWomen-5.pdf> (Accessed 26 September 2013).

Braun, V. and Clarke, V. 2013. *Successful qualitative research: a practical guide for beginners*. London: Sage Publication.

Babbie, E. Halley, F.S. Wagner, W.E.W and Zaino, J. 2012. *Adventures social research: Data analysis using IBM SPSS statistics*. 8th ed. Los Angeles: Sage publication.

Barbour, R.S. 2014. *Introducing qualitative research: A student guide*. 2nd ed. Los Angeles: Sage publication.

Badat, S. 2007. Theorizing institutional change: post-1994 South African higher education. (Online). Available: www.vcgiu.ac.za. 34(4): 455-465.

Bruckmuller, S. Ryan, M.K. Rink, F. and Haslam, S.A. 2014. The glass cliff and its lessons for organizational policy. *Social issues and policy review*. 8(1): 202-232.

Bovaird, T. and Löffler, E. 2010. *Public management and governance*. 2nd ed. London: M.P.G book group.

Badat, S. 2012. The challenges of transformation in higher education and training institutions in South Africa. (Online). Available: www.ru.ac.za/.../the%20challenges%20of%20transformation%20...pdf. (Accessed: 5 April 2014).

Coward, L.S. 2010. Barriers to women's progress: psychology as basis and solution. *Forum on public policy*, 5 (Suppl.): 1-12.

Chirileasa, L.C. 2013. University and insertion environment progresses in the knowledge of the relationship between the two entities. 23(2): 321:332.

Creswell, J.W. 2008. *Qualitative inquiry and research design: Choosing among five approaches*. 3rd ed. London: Vicki Knight.

Cameron, R.G. 2009. New public management reforms in the South African public service: Journey of public administration. 44(4): 910-942.

Creswell, W.J. and Clark, V.L.V. 2011. *Designing and conducting mixed method research*. 2nd ed. London: Sage publication.

Ceci, S.J. and Williams, M .2010. Proceeding of the National academy of sciences of the United States of America: Understanding current causes of women's underrepresentation in the sciences. 108(8): 3157-3162.

Clegg, M. Kornberger, M. and Tyrone, P. 2012. *Managing and organizations: An introduction to theory and practices*. 3rd ed. Los Angeles: Sage.

Condry, S.E. 2010. Human resource management in government. 3rd ed. Texas: Jossey-Bass.

Denhardt, R.b. and Denhardt, J.V. 2008. *Public administration: an action orientation*. Belmont: Wadsworth.

Dominici, F. Fred, L.P. and Zeger, S.L. 2009. So few women leaders: It is no longer a pipeline problem, so what are the root causes. *Journal of American Association of University Professors*. 95(4): 25-27.

Durban University of Technology. 2007. *The student centered university of technology of technology*. (Online). Available: www.dut.ac.za. (Accessed 15 May 2013).

De Varies, L. 2012. *Overcoming barriers to women in leadership in higher education*: South African Association of Women Graduates. (Online). Available: www.saawg.org/org/downloads/saaw_colloquium_report_2012.pdf (Accessed 13 July 2013).

Dancaster, L. and Cohen, T. 2010. Workers with family responsibilities: A comparative analysis to advocate for the legal right to request flexible working arrangements in South Africa. *South African Journal of labour relations*. 3(1): 31-45.

De la Ray, C. 2009. Council on higher education monitor: The states of higher education in South Africa 20(8).

Dobete, A. Rundle, S. Kopanidis, F. and Steel, M. 2010. All things being equal: observing Australian individual academic workloads. 32(3):225-237.

Field, 2009. *Discovering statistics using SPSS*. 3^{ed} Los Angeles: SAGE Publication.

Fox, W. and Meyer, I. H. 1995. *Public administration dictionary*. Pretoria: Juta and Co Ltd.

Greenberg, H. and Sweeney. 2012. *How to hire and develop your next top performer*. 2ed. New-York: Magraw- Hill.

Gouws, A. 2012. *Overcoming barriers to women in leadership in higher education* (online). Cape Town: South African Association of Women Graduates. Available: www.saawg.org/org/downloads/saaw_colloquium_report_2012.pdf (Accessed 13 July 2013).

Guest, D.E. 2011. Still searching for some answers. *Human resource management journal*. 2(1):3-13.

Grant Thornton International Business Report. 2012. *Women in senior management: still not enough* (online). *An Instinct for growth* (online). South Africa: Grant Thornton International Available: www.slideshare.net/GrantThorntonplibr-2012-women-in-seniormanagement-still-not-enough (Accessed 8 August 2011).

Gorard, S. 2013. *Research design: creating robust approaches for the social sciences*. London: SAGE Publication.

Henn, H. Weinstein, M. and Foard, N. 2009. *A critical introduction to social research*. 2nd ed. Los Angeles: SAGE Publication.

Hofmeyr, K. and Mzobe, C. 2012. Progress towards advancing women in South African organizations: myth or reality. *African Journal of Business Management*, 6(4):1276-1289.

Harris, C.A. and Leberman, S.L. 2012. Leadership development for women in New Zealand women's universities: Learning from the New Zealand women in leadership program.

Hood, C. 1991. A public management reform for all seasons: public administration. 69(1): 3-19.

Hood, C. 1991. Exploring variations in public management reforms of the 1980s. 12(2): 12-19.

Hellriegel, D. Jackson, S.E. Slocum, J. Staude, G. Almont, Klopper, H.B. Loum, L. and Oosthuizen, T. 2006. Management: 2nd ed. Pretoria: Oxford University press.

Hunters, C. 2012. *Managing people in South Africa: Human resource management as competitive advantage*. 2nd ed. Pretoria: ABC Printer.

Jansen, J.K. 2001. Does the national plan effectively address the critical issues facing higher education? 15(3): 5-9.

Jha, M.K and Jha, H.K. 2013. An empirical study on work life balance of women entrepreneurs in Jharkhand State. *Asian Journal of Research in Social Sciences and Humanities*, 3 (4): 12-17.

Julius, D.J. 2009. University and college personnel management. 111(4): 10-45.

John, L. 2013. *Food management: Idea for college Health, health, school and business during United States*. Cleveland: Penton media.

Levine, R. Lin, F. Kern, D. Wright, S., & Carrese, J. (2011). Stories from early-career women physicians who have left academic medicine: A qualitative study at a single institution. *Academic Medicine*, 86(6), 752-758.

Longman, K.A. and Aderson, P. 2011. *Gender trends in senior level leadership: A 12 years analysis of the CCU U.S. member*. 96(3): 15-25.

Moraham, P.S. Rosen, S. Richman, R.C. and Gleason, A. 2011. The leadership continuum: A framework for organizational and individual assessment relative to the advancement of women physicians and scientists. 20(3): 389-395.

Mouley, L. 2013. The Roles of the game: women and leaderist turn in higher education. *Gender and education*, 25 (1): 116-131.

Moorosi, P. 2010. South African female principals' career paths: understanding the gender gap in secondary school management. *Educational management, administration and leadership*, 38 (8): 1-19.

Mouley, L. 2005. *Gender equity in common wealth higher education: Women's studies, international forum* 28(6): 209-221. Available: (Online).
www.elsevier.com/locate/wsif (Accessed 12 October 2014).

Moorosi, P. 2007. Creating linkages between private and public: challenges facing women principals in South Africa. *South African Journal of Education*, 27(3): 507-521.

Moodie, A. 2010. *South Africa: advancing women in higher education. University World News* Available:
<http://www.universityworldnews.com/article.php?story=2010100210052511>
(Accessed: 3 October 2013).

Marchington, M. and Wikiason, A. 2012. *Human resource management at work*. 5th ed. London. Chartered institute of personnel and development.

Meera, E. and Deo, M.E. 2014. *Looking forward to diversity in legal academia: Berkeley Journal of gender, law and justice*. 29 (2):4-6.

Nkomo, S.Q. and Ngambi, H. 2009. African women in leadership: current knowledge and a framework for future studies. *International Journal of African Renaissance Study*, 4 (1): 49-68.

Norman, K.D. and Lincoln, Y.S. 2013. *Strategies of qualitative inequality*. 4th Ed. California: SAGE Publication.

Onsongo, J. 2009. Affirmative action, gender equality and university administration- Kenya, Uganda and Tanzania. 7(1): 71-81.

Pynes, J.E. 2013. *Human resource management for public and non-profit organization*. 4th ed. Los Angeles: Jossey-Bass.

Rainey, H.G. 2014. *Understanding and managing public organizations*. 5th ed. Los Angeles: Jossey-Bass.

Raufflet, E. 2009. Mobilizing business for post-secondary education: CIDA University, South Africa. *Journal of business ethic*. 89: 191-202.

Republic of South Africa. 1997. *Basic Conditions of Employment Act 75 of 1997*. Pretoria: Government Printer.

Republic of South Africa. 1997. Higher education Act 101 of 1997. Department of education. Pretoria: Government printers.

Republic of South Africa. 1997. Notice 1196 of 1997 education white paper: A programme for the transformation of higher education. Pretoria: Government printer.

Republic of South Africa. 2002. *Labour Relation Act No. 66 of 1995* (online). Available: <http://www.labour.gov.za>. (Accessed 20 September 2014).

Republic of South Africa. 1998. *Employment Equity Act 55 of 1998: code of good practices on the integration of employment equity on human resource policies and practices* (Online). Available: <http://www.labour.gov.za>. (Accessed 20th September 2013).

Republic of South Africa. 2002. *Basic conditions of employment Act 75 of 1997* (Online). Available: <http://www.labour.gov.za>. (Accessed 25 September 2014).

Republic of South Africa. 1997. White paper on transforming public services delivery. Department of Education. Pretoria: Government Printer.

Republic of South Africa. 2004. *Employment equity Act of 1998* (Online). Available <http://www.labour.gov.za>. (Accessed 30 October 2014).

Republic of South Africa. 1997. Department of public service and administration: white paper on public human resource in the public service. Department of Education. 13(5): 94-3.

Riordan, S. and Potgieter, L.J. 2011. Career success of women academic in South Africa: South Africa Journal of psychology. 41(2): 157:172.

Sunder, S. and Easteal, P.A.M. 2012. Reporting sexual harassment in rural workplaces 20(3):4-6.

Shay, S. 2014. Conceptualizing curriculum differentiation in higher education: a sociology of education. 34(4): 563-582.

Starling, G. 1997. *Managing the public sector*. Georgetown: Irwin-Dorsey Ltd.

Samuel, C. Certo, D. and Trevis, C 2009. Public administration-main factor in successful management of coastal area development in republic of Croatia. 10(1): 16-27.

Saichaie, K. and Morpew, C.C. 2014. What college and university websites reveals reveal about the purposes of higher education: The Journal of higher education. 85(4): 500-530.

Silander, C. Haake, W., and Lindberg, L. 2012. The different worlds of academia: A horizontal analysis of gender equity in Swedish higher education. 66(1): 173-81.

Rule, P. and John, V. 2011. *Your guide to case study research*. Pretoria: Van Schaik.

Stromquist, N. 2013. *Better, yet still unequal: revisiting women's progress in higher education*. (Online). Texas: Gulen Institute. Available: www.guleninstitute.org/publication/analyses/279-revisiting-women-progress-in-higher-education.html (Accessed 10 November 2013).

Sekaran, U. and Bougie, R. 2013. *Research methods for business: a skill-building approach*. 6th ed. Rome: Trento Srl.

Silverman, D. 2013. *Doing qualitative research*. 4th ed. Los Angeles: SAGE Publication.

Sisson, K. 2010. Employment relations matter. Available: <http://www2.warwick.ac.uk/fac/soc/wbs/warwick.ac.uk/fac/soc/wbs/research/irru>. (Accessed 28 September).

Still, L. 2009. Women in management: A personal retrospective. *Journal of management and organization* 15(4): 555:561.

South African Parliament. 1995. S.A. *Qualifications Authority Act No. 58 of 1995* (Online). Available: <http://www.saga.org.za/list.asp?key=legislation> (Accessed: 2nd September 2014).

South African Board for people practice (SABPP) women's report 2011. Sherbone Street:Parktown. Available www.sabpp.co.za.

Teigen, M. 2012. *Gender equity: problem, strategies and solutions*. Institute for samfunns forskning (Online). Available: www.samfuumsforskning. (Accessed 15 October 2014).

Tsoka, G.E. 2010. Perceptions of barriers to the advancement of women in management and leadership positions in South Africa. *Gender and behavior*, 8 (2): 2976-2995.

Toole, L.J.O. and Meier, K.J. 2011. *Public management: Organization, government and performance*. London: University press.

Treiman, D.J. 2009. *Quantitative data analysis: doing social research to test ideas*. New-York: Jessey-Bass.

Turner, C. 2012. *Women's progress: Is the glass half empty? What will it take to fill it?* *Women Media Contributors*. (Online), December 12:2. Available: <http://www.forbes.com/sites/womensmedia/2012/07/12/womens-progress-is-the-glass-half-empty-what-will-it-take-to-fill-it/> (Accessed 7 June 2013).

UNESCO 2002. Women and management in higher education. A practice handbook. *Follow-up to the World Conference on Higher Education*, Paris. (Accessed 43 October 2014).

Ursin, J. Aittola, H. Henderson, C. and Valimaa, J. 2010. Is education getting lost in university merger? (Online). *Tertiary education and management*. 16(4). Available: <http://www.trandfonline.com>. (Accessed: 10 October 2014).

U.S. Glass Ceiling Commission 1995. *A Solid Investment: Making Full Use of the Nation's Human Capital (Final Report of the Commission)*. Washington, DC: U.S: Government Printing Office.

Valerio, A.M. 2009. *Developing women leaders: A guide for men and women in organizations*. Singapore: Oxford Press.

Vyas -Doorgapersad, S. 2001. Paradigm shift from new public administration to new public management. *The journal for trans-disciplinary research*. 78 (5): 55-89.

Whitchurch, C. 2008. Shifting identities and blurring boundaries emergence of third space professionals in UK higher education, 62(4): 377- 389.

Whitchurch, C. 2008. Beyond Administration and Management: Reconstructing the Identities of Professional Staff in UK Higher Education. *Journal of Higher Education Policy and Management*, 30(4): 375-386.

Water 2013, Teacher leadership: some South African voices. *Education management, administration and leadership*, 34:511-532.

Wallace, T. and Smith, H.B. 2011. *Core Issues affecting women progressing to senior management: comparative overview of global South* (Online). Paris: International Institute for Education and Planning. Available: http://doc.iiep.unesco.org/wwwisis/repdoc/SEM313/SEM313_14_eng.pdf (Accessed 26 October 20).

APPENDICES

APPENDICE 1: QUESTIONNAIRE



FACULTY OF MANAGEMENT SCIENCES DEPARTMENT OF PUBLIC MANAGEMENT & ECONOMICS

Dear Participant,

I am currently pursuing my M-Tech studies in the Department of Public Management and Economics under the supervision of Prof N. Dorasamy (Co-ordinator). My research is focused on the: *Factors Influencing the Career Progression of Women in Higher Education: The Case of Durban University of Technology.*

It will be highly appreciated if you could contribute by completing the attached questionnaire. The purpose of this questionnaire is to acquire information that will provide primary data for the M-Tech degree in Public Management. The result of this study will help women to identify factors hindering their progress, so that steps may be taken to address them. The study is solely for academic purposes and the answers you provide will be kept confidential and no identifying information will be provided. Participation in the study is voluntary and the results will be made available to pros and copies will be lodged in the DUT repository Lab.

Thank you for your effort and time in completing the questionnaire.

Contact details:

Mabel Awung

Durban University of Technology

Department of Public Management and Economics

Tel: 0738406592

Email: mabelanyi@yahoo.com.

Date: 03/09/ 2014

Factor influencing the career progression of women in higher education: A case of the Durban University of Technology

SECTION A: Biographical information

Please answer all questions by filling in the blank spaces.

A1. Faculty-----

A2. Department -----

Please place a cross (x) in the appropriate box.

A4	Age	
a	Under 30 years	
b	30-39 years	
c	40-49 years	
d	50-59 years	
e	60 years and above	

A5	Marital status	
-----------	-----------------------	--

a	Single	
b	Married	
c	Widow	
d	Divorced	

A6	How long does it take you to get to work	
b	0 to 15 minutes	
c	15 to 30 minutes	
d	45 to 1 hour	
e	More than 1 hour	

Question A7 is for Instructional/Research Professionals only

A7	Type of position held in the university	
a	Professor	
b		

	Associate professor	
c	Senior lecturer	
d	Lecturer	
e	Junior Lecturer	
f	HoD /Deans	
g	Faculty research coordinator	
h	Others (specify)	

Question A8 is for non- instructional professionals only

A8	Occupational position	
a	Top management	
b	Senior management	
c	Junior Management	
d	Other (specify)	

A10	Highest academic qualification	
a	Diploma/Degree	

b	B-Tech /Honours	
c	Masters	
d	Doctorate	

A11. Employment Duration at DUT

a	1 to 3 years	
b	4 to 6 years	
c	7 to 9 years	
d	10 to 15 years	
f	More than 15 years	

A12. Employment status

a	Full- time	
b	Part-time	
c	Contract	
d	Other specify	

SECTION B: PERCEPTIONS OF CAREER PROGRESS OF WOMEN AT DUT.

This section concerns how you view career progress at the university. Please indicate the extent to which you **agree, strongly agree, disagree, strongly disagree, neither agree nor disagree** with the statements by placing an (x) in the appropriate box.

B1	Career progress should be based on :	Agree	Strongly agree	Disagree	Strongly disagree	Neither agree nor disagree
-----------	---	--------------	-----------------------	-----------------	--------------------------	-----------------------------------

a	Qualifications					
b	Research publications					
c	Work experience					
d	Awards					
e	Current job title					

B2	The university supports the career progress of women:	Agree	Strongly agree	Disagree	Strongly disagree	Neither agree nor disagree
-----------	---	--------------	-----------------------	-----------------	--------------------------	-----------------------------------

B3	Promotion trends at the university show strong support for women:	Agree	Strongly agree	Disagree	Strongly disagree	Neither agree nor disagree
-----------	---	--------------	-----------------------	-----------------	--------------------------	-----------------------------------

B4	Management at the university understands the challenges women face:	Agree	Strongly agree	Disagree	Strongly disagree	Neither agree nor disagree
-----------	---	--------------	-----------------------	-----------------	--------------------------	-----------------------------------

SECTION C: POLICIES AND CAREER MOTIVATION AT DUT

In this section, the researcher's aim is to find out whether the policies at DUT motivate women in their career. Please indicate the extent to which you **agree**,

strongly agree, disagree, strongly disagree, neither agree nor disagree with the statements by placing an (x) in the appropriate box.

C1	At your university:	Agree	Strongly agree	Disagree	Strongly disagree	Neither agree nor disagree
a	Gender factors are considered when formulating policies.					
b	Staff members are well informed about the various policies at work relating to human resource.					
	At your university:	Agree	Strongly agree	disagree	Strongly disagree	Neither agree nor disagree
c	There are adequate policies in place to motivate women in their career.					
d	Gender policies are periodically amended to address the challenges women face.					
e	The monitoring of and evaluation of policies implemented is normally carried out.					
f	Employment equity policies are applied at DUT.					

SECTION D: FACTORS AFFECTING / IMPEDING THE PROGRESS OF WOMEN AT DUT

The aim of this section is to find out the factors affecting your progress at DUT.

Please indicate the extent to which you **agree, strongly agree, disagree, strongly disagree, neither agree nor disagree** with the statements by placing an (x) in the appropriate box.

D1	The lack of progress of women can be attributed to:	Agree	Strongly agree	Disagree	Strongly disagree	Neither agree nor disagree
a	Limited opportunities are given to women to develop in their profession.					
b	Poor working relationships among staff and other departments.					
c	Promotion to the next level is not based on employees' performance.					
d	Men in top positions prefer to promote men to top positions than women.					
e	Women are not as strongly motivated as men to take on senior management positions.					
f	Women in top positions move to other cities.					
g	Decision making at the university is					

	more favourable to men than women.					
h	The university does not have sufficient leave and incentives for further studies.					
i	Women do not show effort to further their education.					
j	Inflexible work schedules at the department.					
k	Women at the top do not motivate other women to rise to the top.					
l	Excessive work load for staff.					
m	Lack of information about new positions.					
n	Lack of flexibility and work schedule for staff.					
o	Childbearing, domestic responsibilities and family commitments.					
p	Women do not apply for higher position when advertised.					
q	Work interruption by senior					

	colleagues without notification.					
r	Senior and top management positions are too demanding for women.					
s	The employment equity policy favours certain races.					

D2	Promotion at your university is based on:	Agree	Strongly agree	Disagree	Strongly disagree	Neither agree nor disagree
a	Qualifications					
b	Networking					
c	Race					
d	Experience in administration, teaching and research					
e	Confidence					
f	Political affiliation					
g	Merit					

SECTION E: SUGGESTIONS.

Please use the blank spaces below to provide any other information

E1. What do you think can be done to help you rise further in your career?

E2. What other factors can be the cause of women's lack of progress at DUT beside the above mentioned ones?

E3. What policies would you suggest to improve career progression at DUT?

E4. What is your opinion about women's underrepresentation at DUT?

Thank you for your time and cooperation. Your opinions are highly appreciated.

Appendix 2: Letter of informed consent



LETTER OF INFORMATION

Title of the Research Study: Career progress of women in higher education: A case study of Durban University of Technology.

Principal Investigator/s/researcher: Mabel A. Awung.

Co-Investigator/s/supervisor/s: Prof N Dorasamy. (Associate Professor).

Brief Introduction and Purpose of the Study:

This study attempts to investigate the factors influencing the career progress of women in higher education in general and South Africa in particular in terms of position, within DUT. Recent research has shown that even though women have made some progress as compared to where they were twenty years back, the progress of women has proved to be resistant to change in terms of higher level and rewarding positions (Turner 2012, Hofmeyr and Mzobe 2012, Botool and Sajid 2013, Mouley 2013). According to Boushey and Farrell (2013:6), this lack of progress is as a result of lack of flexibility and unpredictable scheduling at the workplace. Others argue that career interruption for childbirth and rearing, domestic responsibilities, gender parities at work place, organizational structures and policies that do not meet the needs of female employees affect career progress (Wallace and Smith 2011:3 and Tsoka 2010:6). The purpose of the study is therefore to examine the nature of the progress of women in higher education, and to identify factors influencing their progress.

Outline of the Procedures:

The participant will be given questionnaires to fill, and it will have open ended questions and close ended questions, so as to obtain appropriate information. Open-ended questions will give the respondents the opportunity to write down their views or responses, so that the researcher would be able to have in-depth information. In the case of the closed ended questions the respondents will select an answer from the list provided and this will provide a greater uniformity of responses which would be easy to process. The participants will randomly be given the questionnaires to fill and then after two or three days they will be collected. Participants would be expected to answer all questions in English, since English is the language medium in South Africa. The data collected shall then be analyzed and stored in a confined place by the researcher.

Risks or Discomforts to the Participant: There will be no risk of discomfort to the participant.

Benefits: The research will provide recommendations to enhance the career progress of women in higher education. Also the research findings will be published in journals and presented at conferences.

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

If any of the participants feel that they do not wish to participate in this research, they will not be forced to and they will be no negative consequences for them if they choose to withdraw.

Remuneration: None

Costs of the Study: No

Confidentiality: No identification of any sort would be asked and no identity of any respondents will be known. The researcher undertakes to maintain confidentiality and anonymity. The research will be for academic purpose only.

Research-related Injury: Participants will not incur any injury as they will only be expected to fill the questionnaire that will be given to them in their offices.

Persons to Contact in the Event of Any Problems or Queries: For any inquiries, please contact the following:

Supervisor: Prof N. Dorasamy (Faculty of Management Sciences) on 27(31)3736862, Cell: 0722678704 email: nirmala@dut.ac.za.

Researcher: Mabel A. Awung (student at DUT), on 0738406592, email: mabelany@yahoo.com, or the Institutional Research Ethics administrator on 031 373 2900. Complaints can be reported to the DVC: TIP, Prof F. Otieno on 031 373 2382 or dvctip@dut.ac.za

