



**Cape Peninsula
University of Technology**

**THE ROLE OF INFORMATION, COMMUNICATION AND TECHNOLOGY IN
PROMOTING GENDER EQUALITY IN THE WORKPLACE: A STUDY OF A
UNIVERSITY IN THE WESTERN CAPE**

by

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degree**

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The Role of Information, Communication and Technology in Promoting Gender Equality at the Workplace: Study of a University in South Africa

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ABSTRACT

Various efforts have been made to address the issue of gender equality at the workplace. It can be noted that even though equal opportunities between men and women may exist, the discrimination of women is still immanent in the workplace for example gender bias, unequal opportunities and underrepresentation. Previous research has failed to give a clear picture on the impact of information, communication, and technologies on gender gaps. It is mostly generalised.

This study evaluates the role of Information Communication Technologies (ICTs) in promoting gender equality in the workplace. The research explores different theoretical perspectives namely Gender Glass Ceiling, Equity Theory, Technology Acceptance Model, Gender Inequality and Discrimination, Critical Information Systems Theory and the Feminist Theory. The study used a qualitative research method and a case study design in order to fulfil the study's objectives and aim. It was carried out at a selected higher education institution in South Africa. Purposive sampling was used and 19 research participants were interviewed both men and women. The data that was collected was transcribed, coded using open coding, analysed and interpreted using thematic analysis to make sense of the findings. Ethical codes of conduct such as truthfulness, confidentiality, anonymity, beneficence and data protection were employed due to the sensitive nature of the study.

Results show that ICTs play a vital role in promoting gender equality. ICTs enable employees to become educated, skilled and knowledgeable becoming aware of their rights and fair practices in the workplace. ICTs also enhance both men and women empowerment in independency, decision making and self-actualisation. Fundamental recommendations are given by the researcher regarding ICTs and the promotion of gender equality in the workplace to enhance organisational performance. Organisations need to view ICTs as an integral part of business and enhance its use to promote gender equality.

Keywords:

- Gender inequality
- Gender discrimination
- Gender glass ceiling
- Information Communication Technologies
- Information systems
- Higher educational institutions.

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DEDICATION

For my Father, Mr .I. S. Mbengo and my mother Mrs .P. Whild, whom I love dearly for being my inspiration, and for their love.

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GLOSSARY OF TERMS

Terms/Acronyms/Abbreviations Definition/Explanation

Gender glass ceiling-	this term was first used since 1986 by the WALLSTREET JOURNAL meaning an invisible barrier for women’s career advancement and development (Eagly, Diekman, Johannesen-Schmidt, & Koenig, 2004)
Senior leaders-	are groups of high level executives that actively participate in the daily supervision, planning and administrative processes required by a business to help meet its objectives. The senior management of a company is often nominated by the corporation’s board of directors and approved by stockholders (Soanes & Stevenson, 2008)
Higher education institutions-	is a level of education that is provided by universities and institutions of technology that award degrees or professional certifications
Gender inequality-	is the idea and belief that men and women are not equal based on their gender (Terborg & Ilgen, 1975)
Career development-	is an on-going process of managing work, learning, training and advancement to move towards a brighter future
Chief Executive Officer (CEO)-	is a top executive that is mainly responsible for a company’s operations and performance and is the main contact between the board of director and the firms departments. Main duties of CEO is to maintain, manage and implement corporate policies that are established by the board (Soanes & Stevenson, 2008)
Information Communication Technologies (ICTs)-	comprise of a complex and heterogeneous set of goods, applications and services used to produce, distribute, process and transform information for example, telecommunications, television, radio, computer hardware and software, computer services and social media platforms (Suresh, 2011)
Head of Department (HOD)-	are the people who are responsible for overseeing departments, members and their performance. These are the people in charge of academic departments and assist in setting up educational plans (Soanes & Stevenson, 2008)
Deputy Vice Chancellor (DVC)-	part of the academic executive management and is responsible for academic focus and overall strategic planning of the university (Soanes & Stevenson, 2008)

CHAPTER ONE

Background to the study

1.1 Introduction and Background

Women all over the world are clamouring for equal rights in communities and in the business environment due to historical imbalances (Alves & Steiner, 2017; Berki & Tiaineneni, 2019). In South Africa, women are advocating for gender equality at the workplace and it can be argued that even though laws have been passed and measures have been taken to eliminate it, gender equality still exists (Shepherd, 2008; Moodly, 2015; Segalo, 2015; Haylock, Cornelius and Malunga, 2016; Ndimande-hlongwa, 2016; Singh and Naidoo, 2017; Akala, 2018; Atkinson, 2018; The Global Gender Gap Report, 2018).

It is common knowledge and experience that until recently women were not afforded an equal platform in the home, communities and in the workplace (Heilman & Eagly, 2008; Berki & Tiaineneni, 2019). However, there have been interventions such as educating women through ICTs meant to create gender equality (Berki & Tiaineneni, 2019). Religious and cultural norms among other factors are contributing significantly to discrimination against women (Dewalt, 2017). The fact that this century has seen interventions such as the Beijing conference and several laws being passed to protect women against discrimination indicate things were not and are still not well regarding equal opportunities for both men and women in society at large (Chen, 2018). This observation is supported by many researches for example Mabokela (2003) found that women have historically been under-represented and continue to be under-represented in higher educational institutions.

Table1.1: Analysis of Governance Positions by Gender in Public universities in SA

University with pseudonyms for anonymity and confidentiality reasons	Chancellor	Vice-Chancellor
University A	Male	Male
University B	Male	Male
University C	Female	Male
University D	Female	Male
University E	Female	Female
University F	Male	Male
University G	Male	Male
University H	Male	Male
University I	Female	Male
University J	Female	Female
University K	Male	Male
University L	Male	Male
University M	Male	Male
University N	Male	Male
University O	Male	Female
University P	Male	Male
University Q	Male	Male
University R	Male	Male
University S	Male	Male
University T	Male	Male
University U	Female	Male
University V	Male	Male
University W	Male	Female
University X	?	Male
University Y	Female	Male

Source: Author

Table 1.1 shows that it is evident that in South Africa, most top positions such as chancellors, vice chancellors and executive managers are occupied by men, although there seems to be a balance in the ceremonial political positions. Based on Table 1.1 it is noticeable that out of twenty-five universities in South Africa, there are only seven female chancellors and four female vice-chancellors. However, if we look at the trend in positions held by women in universities, we can see that the number of women attaining positions in governance positions is increasing (Machika, 2014). In the past, women held secretarial roles but due to female empowerment and emancipation through education, they are now attaining top management positions (Machika, 2014). Even though the change in the representation of women is

significant, gender inequality is still visible in higher educational institutions (Machika, 2014). An analysis in 2007 found that out of 23 vice chancellors, only 3 were women and out of 23 registrars, only 5 were women and this showed an under-representation of women (Machika, 2014). Women are still under-represented in governance and top-management positions based on an analysis by the author as shown on Table 1.1 in 2019.

Although it will take time, even decades, it is important that injustices against women are eliminated from society (Cummings & O'Neil, 2015). There are several factors that deny women equal opportunities in the workplace such as gender bias, gender discrimination and stereotyping among others (Dipboye & Colella, 2005). According to Berki & Tiainen (2019) gender inequality is a problem that has been in existence for centuries and is worth exploring to find ways to eliminate this injustice from society. Despite the passing of laws and the adoption of affirmative action policies in the workplace, women still struggle to acquire top positions especially in South Africa (Shepherd, 2008; Moody, 2015; Segalo, 2015; Haylock, Cornelius and Malunga, 2016; Ndimande-hlongwa, 2016; Singh and Naidoo, 2017; Akala, 2018; Atkinson, 2018; The Global Gender Gap Report, 2018).

In a case study of Ghana, Ohemeng & Karikari (2004) found that women are making progress on their journey to attain top positions in the workplace. However, they also found out that the number of women holding top positions were few in public services sector. According to Bertrand, Black, Jensen & Lieras-Muney (2015), even though laws were passed in Norway mandating 40 % representation of women in key positions there is no evidence that gender equality has been achieved in the country. Gender stereotyping remains a very typical problem in the business environment and women who are strong leaders are often seen as too aggressive and opinionated (Davidson, 2009). Supporting these findings Meyerson & Fletcher (2000) found that discrimination of women in various countries was rife in the workplace exhibiting itself as gender bias and unequal pay.

Gender inequality in the workplace as in South Africa's institutions of higher learning in Table 1.1 may be due to the glass ceiling (Mabokela, 2003). On the other hand, it can be argued that not only the glass ceiling prevents women from advancing to top

positions, but rather other factors such as family responsibility and their attitude (Rai & Srivastava, 2008) since other women have managed to acquire top positions.

Various scholars such as (Shapiro & Olgati, 2002; Gurumurthy, 2004; Sandys, 2005; Suresh, 2011; Mahmudul, 2012; Cummings & O'Neil, 2015; OECD, 2017) explored the role of Information Communication Technologies (ICTs) in promoting gender equality and found out that rapid digital transformation enhances women's positions in the workplace closing the gender gap. However, OECD (2017) said there could be concerns on job quality since job effects of digitalisation depend on skills. Mahmudul, (2012) gave a suggestion that ICTs can improve women's positions without testing it. Sandys (2005) conducted research on the same topic and found no evidence that individual and a combination of women's voices can influence policy decisions by using ICTs. The lack of conclusive findings has motivated the researcher to explore how to promote gender equality using Information and Communication Technologies (ICTs). The next section gives a detailed explanation of the research problem.

1.2 Problem Statement

Gender discrimination is rife in the workplace despite laws and regulations put in place to fight this injustice (Chen, 2018; Graf, N; Brown, A; & Patten, 2018; Jeanes,E; Loacker, 2018; Triana, M & Trzebiatowski, 2018). Most women experience challenges in advancement of their careers regardless of their qualifications and accreditations (Purcell, MacArthur, & Samblanet, 2010). Even though the number of women who are attaining top positions is increasing, women who actually hold these positions are few as compared to the men who are equally qualified (Meyerson & Fletcher, 2000; Chen, 2018; Graf, N; Brown, A; & Patten, 2018; Jeanes, E; Loacker, 2018; Triana, M & Trzebiatowski, 2018). There is evidence in most countries that show under-representation of women in top positions (Tan, 2008; Graham, Lloyd, & Thompson, 2008; Davidson, 2009; Booyesen & Nkomo, 2010; Chen, 2018). Ohemeng & Karikari, (2004) postulate in Ghana's civil service the number of women who hold top positions are few. The same was found to be the case in Norway by Bertrand *et al.* (2015) and in the United States by (Bradstreet, 2004) and in Africa by (Mabokela, 2003). Recent studies by (Chen, 2018; Graf, N; Brown, A; & Patten, 2018; Jeanes, E; Loacker, 2018; Triana, M & Trzebiatowski, 2018) also reveal that gender inequality still exists in other countries, and that

women with top positions are still rare. In South Africa few women occupy top positions in institutions of higher learning from HODs, Vice Chancellors and Chancellors in South Africa, see Table 1.1. This could be due to gender inequality or other factors such as requisite qualifications, distinctive competencies, experience, leadership and management skills, as well as determination and character. There is therefore need for an investigation hence this study. Scholars such as Loiseau & Nowacka (2015) investigated whether ICTs can be used to promote gender equality in the workplace since it seemed to work in the community getting inconclusive results. ICTs were found to promote gender equality in the community but not specific to the workplace (Gurumurthy, 2004; Sandys, 2005; Mahmudul, 2012; Cummings & O'Neil 2015; Berki & Tiainen 2019). Can ICTs effectively include women's voices in decision making processes? The researcher through this study will explore how to promote gender equality using Information and Communication Technologies (ICTs).

1.3 Significance of the Study

The study will add to knowledge how gender equality can be promoted using Information Communication Technologies. The study will also benefit both men and women in all industries in that they will have equal opportunities at work.

Practically, this study will promote gender equality in line with the national constitution and policies, UN charters and world view. The study will inform institutions of higher learning on the need to include gender equality in their curricula, especially promoting the use of ICTs in this regard.

The next section provides an outline of the research objectives and the research questions.

1.4 Aim and purpose of the study

This study aims to explore how ICTs can be utilized to promote gender equality in the workplace. The research objectives were designed from the primary aim and purpose of the study.

1.5 Research objectives

The research objectives which were derived from the primary aim are:

1. To investigate the extent of gender inequality in a selected higher education institution in South Africa based on the perceptions of a select number of university staff
2. To establish if a select number of the university staff members are aware of the fact that ICTs can be used as a tool to promote gender equality at the workplace.
3. To establish the extent to which ICTs are currently being used to promote gender equality at a selected higher education institution in South Africa.
4. To find ways in which ICTs can be utilised to promote gender equality in the workplace.

The following section will state the research questions which centralise from the general purpose and objectives of the study in order to determine the findings and conclusions of the research.

1.6 Research Questions

The following research questions will provide the main focus of the study:

- What is the extent of gender inequality in a selected higher education institution in South Africa based on the perceptions of a select number of university staff?
- Are a select number of the university staff members aware that ICTs can be used as a tool in promoting gender equality?
- To what extent are ICTs currently being used to promote gender equality in a selected higher educational institution in South Africa?
- In which ways can ICTs be used to promote gender equality in a selected higher educational institution in South Africa?

Below is an overview of research methodology and data analysis that was used in this research and a detailed explanation will be given in Chapter 3.

1.7 Research Design

According to Saunders, Lewis, & Thornhill (2008) the research design is the road map of converting a research question into a research project, it is a plan of how the

researcher will answer the research questions. The research design used in this study is a case study. This was chosen because a case study is more suitable for a social enquiry (Bryman, 2004). A case study is more focused on an in-depth analysis of people or relationships that are bound by a common factor (Bryman, 2004). The researcher used in-depth semi-structured interviews to collect data. Face to face interviews were deemed appropriate because the study is of a sensitive nature and that it is purely qualitative.

1.7.1 Population

For this research, the population was both academic and non-academic staff namely: chancellor, deputy chancellor, Dean, Deputy Dean, Program Director, Head of Department, Professor, Lecturer, Research assistant, Administration assistant and Senior secretary at a university. According to Saunders *et al.* (2008) a population is the set of all members that the researcher wants to conduct the study on. In this study the total number of 20 will be used based on literature from previous scholars (Bryman, 2016). Both men and women were chosen to provide a balanced and not a one sided view on the role of ICTs in gender equality promotion.

1.7.2 Sampling

Sampling is the selection of a group of people who will be used in data collection and investigation (Saunders *et al.*, 2008). There are two types of sampling methods which are probability and non-probability sampling. Probability sampling techniques use random selection techniques and the total population is known with all subjects having an equal opportunity of being chosen yet non-probability sampling methods allow the non-random and subjective selection of subjects (Saunders *et al.*, 2008). The researcher used non-probability sampling techniques. Purposive sampling was used to pick participants for the study because they were suitable in answering the research questions, accessible to the researcher, relatively cheap and not time consuming. According to Collis & Hussey (2009) the main thrust of purposive sampling is focusing on specific characteristics of a population of choice which will help answer research questions. The population was divided into two main groups which are academic and non-academic staff and two sub groups men and women. The sub groups were then divided into ordinary employee, middle management and

top management. Participants were conveniently chosen in all sub groups with an even number of men and women being chosen as sources of data.

According to Dworkin (2012) "There are many articles, book chapters, and books that suggest that 5 to 50 participants are enough" for in-depth interviews. According to Barker & Edwards (2012) "while many experts agree that saturation is required for in-depth interviews and grounded theory Adler and Adler encourage graduate students to have a sample of between 12 and 60 participants with 30 being the mean. The researcher's choice of 20 for all of the university staff groups, academic and non-academic staff (chancellor, deputy chancellor, Dean, Deputy Dean, Program Director, Head of Department, Professor, Lecturer, Research assistant, Administration assistant and Senior secretary) was therefore adequate.

1.7.3 Data Collection Instruments

When conducting this study, various considerations were taken in the development of research instruments such as objectivity, validity and reliability. These are the tools that were used to measure research instruments (Collis & Hussey, 2009).

1.7.3.1 Interview Guide

Questionnaires were not deemed necessary because the study is of a sensitive nature. The researcher opted to conduct interviews to cover the whole spectrum of workers at the university. Interviews refer to verbal communication between both parties and it can either be structured or unstructured (Saunders *et al.*, 2008). The researcher used face to face interviews because interviews will give quick responses and better understanding. The researcher used an interview guide that was designed using the ethical codes of conduct.

1.7.4 Data Coding and Analysis

It is important to consider overall points of view and a perspective concerning which data is to be collected, how it will be collected and how it will be analysed (Collis & Hussey, 2009). The researcher used the information that was collected from interviews and document analysis to evaluate the facts and findings of the study. The

researcher used SPSS Version 21 to analyse the data in Section A for the respondents' biographical data and perceived use of ICTs. The researcher then used NVIVO to transcribe and code data and then used Microsoft Excel to present the data set from which themes were generated to analyse data in Section B and C in order to answer the research questions mentioned above. More information on data analysis is given in Chapter 3.

Validity

The research design of the case study was deemed necessary for this study due to the aforementioned reasons and the analysis of the results that were done without bias and in-line with the ethical standards. The analysis of ICTs in promoting gender equality has been done before by writers such as (Mahmudul, 2012; Sandys, 2005). Relevant views of the findings of the study are presented to a greater extent. The researcher used original data in the analysis of findings such as quotations from various respondents.

Reliability

The researcher transcribed all the data collected from the interviews from all the respondents to avoid leaving out important information relevant for the study. However, the number of respondents was few (only 19 interviews conducted) so qualitative analysis was used using NVIVO and Microsoft Excel. Respondents were row headings and questions column headings see **Appendix D**. Sorting was done based on gender to establish if responses were associated with gender. Coding was done according to the order of the questions and the respondents were coded according to gender on Section A of the interview guide from **Appendix C**.

The researcher also generated themes and patterns using thematic analysis which is useful for this qualitative study and the researcher referred to external evidence to test the conclusions from the analysis. Themes were generated from the interview transcript in **Appendix F**.

1.8 Ethical Considerations

When conducting educational research, internationally recognised codes of conduct should be used. Before commencing with the study, the researcher obtained consent

from the institution under study in order to conduct interviews. Data collected for this research will be used for learning purposes only and will not be shared with third parties unless the research participants give the researcher consent to do so. The researcher informed the participants of the nature of the study, purpose and the method of data collection and the role of the participants and making sure they understood the implications of the study. The researcher was honest, truthful, and sincere. In addition, the researcher respected anonymity and confidentiality of the research participants. The researcher respected and minimised harm to the respondents either psychological or physical by formulating questions that are not sensitive in nature to avoid distress to the respondents at the same time keeping the research questions as the guiding principle for the study. The limitations of this research are stated below.

1.9 Limitations of the Research

The study targeted only 20 participants at one institution in South Africa due to time and cost constraints and only 19 respondents were interviewed. The last respondent was not available due to work commitments so the researcher interviewed 10 women and 9 men instead. The study is based on a case study and is qualitative hence the findings cannot be generalised to the entire population. However, the findings can be a useful foundation for which further studies can be conducted given more time. The research is sensitive in nature in that it involves questions on gender equality which may make men uncomfortable and defensive giving unreliable information. To counter this problem care was taken to formulate questions that were not sensitive. Furthermore, the researcher established good rapport with the research participants to obtain reliable information. The researcher used Microsoft Excel to code and analyse qualitative data due to the fact that the themes generated from the interviews on the study were nearly the same and also the respondents were only 19. It can be argued that 19 interviews are sufficient for saturation for a qualitative study (Trotter, 2012), but however computer software such as NVIVO, CAQDUS and ATLAS TI are more effective on qualitative data analysis as compared to others (Comerford, 2012).

1.10 Theoretical Contributions

This study adds to the body of knowledge how ICTs can be used to promote gender equality in the workplace. ICTs have been proven to be a useful tool in promoting gender equality in the community by giving a voice to the voiceless and disseminating crucial information. However, there is no evidence that they will have the same effect in the work environment hence this study. The study will also educate stakeholders on the impact of gender equality on organisational performance making a case for the need of equal opportunities for both males and females in organisations. The next section gives a detailed outline of the complete thesis.

1.11 Outline of the Thesis

1.11.1 Chapter 1 Introduction

The first chapter is an introduction to the study. It gives the study background and outlines the research objectives and research questions. This chapter also discusses the significance of the study and gives a summary of ethical considerations and scope of the research and an outline of the entire thesis.

1.11.2 Chapter 2 Literature Review

The second chapter is a detailed review of literature which reveals gaps in knowledge. Empirical studies in this chapter informed the construction and adoption of the research instruments used for data collection. The chapter also looks at underpinning theories to support the research. All in all, this entire chapter gives justification for this study.

1.11.3 Chapter 3 Methodology

The third chapter gives a detailed outline of the research methodology. It discusses the target population, in this case University employees and the study sample consisting of ten men and ten women. It presents the research design which is composed of sampling methods, data collection and data analysis methods and justification of the methods used.

1.11.4 Chapter 4 Data Presentation and Analysis

This chapter presents the findings of the study. It is a collection of data presentation, data analysis and interpretation of study findings. It precedes chapter 5 which presents conclusions and recommendations.

1.11.5 Chapter 5 Conclusions and Recommendations

This chapter gives the conclusions of the research findings stating whether the objectives of the study were met and recommendations based on the research conducted. The chapter outlines the implications of the study to policy makers and practitioners and recommends areas of further study emanating from the findings.

1.12 Chapter Summary

This chapter provides the background to the study, problem statement on what motivated the researcher to embark on this research and it outlines the main purpose, aims and objectives of the research. This chapter also states the significance and limitations of the research and gives an outline of the thesis. The following chapter is a comprehensive review of literature relevant to the purpose of the study in line with research questions and objectives.

CHAPTER TWO

Literature review

2.1 Chapter Introduction

This chapter is a comprehensive review of literature whose objective is to explore how to promote gender equality using Information and Communication Technologies (ICTs) and the development of a theoretical framework for the study. The literature review will focus on gender glass ceiling, use of Information Communication Technologies in promoting gender equality, Equity Theory, Feminist Theory, Critical Information Systems Theory and Technology Acceptance Model (TAM). The literature review will influence the design of the interview guide, with the underpinning theories being integrated in the problem statement, purpose, objectives and methodology of the study.

The researcher begins by exploring the concept of gender inequality and discrimination overall.

2.2 Overview of Gender discrimination

According to Bell, McLaughlin & Sequeira (2002) discrimination is an unfair practice that denies equal opportunities and equal treatment to individuals and groups. Gender discrimination is an injustice based on gender and can take various forms: isolation, being excluded socially, and avoidance of interpersonal contact, the glass ceiling, sexual harassment and unequal pay based on gender bias (Bell, McLaughlin, & Sequeira, 2002). This study focuses on the glass ceiling described by Bell, McLaughlin & Sequeira (2002) as the cap that limits women from obtaining positions that provide power and status within an organisation. One theory that attempts to explain the glass ceiling is the stereotyping theory which alludes that men are better than women hence the reason why women do not attain top positions in comparison to men (Terborg & Ilgen, 1975). One form of discrimination against women in the workplace that was noted by Heilman & Eagly (2008) is that women often received less pay than what the men at the same level were receiving, thereby restricting their chances of advancement. There has been and still is a lot of lobbying by feminist movements with the aim of creating equality between men and women legally,

politically and socially (Lorber, 2010). The results are that gender gaps are closing but gender inequality still exists as shown by few women occupying senior posts compared to men (Lorber, 2010; Dipboye & Colella, 2005). It is said that the problem of gender discrimination and inequality will take long to solve, even more than fifty years until women achieve gender equality (Shepherd, 2008; Moodly, 2015; Segalo, 2015; Haylock, Cornelius and Malunga, 2016; Ndimande-hlongwa, 2016; Singh and Naidoo, 2017; Akala, 2018; Atkinson, 2018; The Global Gender Gap Report, 2018). Gregory went further to say even though laws against discrimination in the workplace have been passed, the change is not significant. In the year 2000, in the United States of America's workforce, 46.5% were women but only 11.7% board of director positions were held by women (Gregory, 2003). A survey of 500 companies conducted by Fortune magazine showed that 495 had male CEOs and also that out of New York City's one hundred largest law firms, only one was led by a woman (Gregory, 2003). In South Africa, women earn 25% less than men and the gender pay gap is 33% between the ages of 36 and 44, furthermore, only 3.3% of the companies listed on the Johannesburg Stock Exchange have female chief executive officers with the rest being male (Moodly, 2015). These statistics show that there is gender inequality in the workplace. There are several factors attributed to gender inequality such as marriage customs, family, work, economy, politics, religion, tradition and culture (Lorber, 2010). Heilman & Eagly (2008) reported that women are victims of social bias, stereotype and prejudice. Some women are not aware of gender inequality and discrimination so they can't stand for themselves. Others are aware but are afraid of speaking out and others lack the financial support to stand their ground (Gregory, 2003; Dipboye & Colella, 2005). Gregory (2003) says that the main reason why gender discrimination and inequality still exist is due to the fact that the number of women who are discriminated against are higher than those who actually report and escalate the issue due to fear of the unknown. However discrimination is less with educated women because they are willing to go the extra mile to fight for their rights (Moodly, 2015). False stereotypes on women such as women are not interested in working, women are not committed to their work as compared to men, women are too emotional and fragile to succeed in the business environment which requires tough decisions, women are not able to work unusual and long hours, women are not willing to relocate, women are passive and are not as aggressive as men also lead to gender inequality and discrimination (Shepherd,

2008; Moodly, 2015; Segalo, 2015; Haylock, Cornelius and Malunga, 2016; Ndimande-hlongwa, 2016; Singh and Naidoo, 2017; Akala, 2018; Atkinson, 2018; The Global Gender Gap Report, 2018).

Gender creates a natural expression of the difference between boys and girls due to their differences in their nature (Gregory, 2003) and society shapes or nurtures this difference between boys and girls leading to gender stereotype that women are inferior to men (Shepherd, 2008; Moodly, 2015; Segalo, 2015; Haylock, Cornelius and Malunga, 2016; Ndimande-hlongwa, 2016; Singh and Naidoo, 2017; Akala, 2018; Atkinson, 2018; The Global Gender Gap Report, 2018). Gender stereotypes lead to gender identity development (Gregory, 2003). However, it is argued that over time, the perceptions and expectations of men and women's roles have changed (Allard, Haas, & Hwang, 2011). Men now cook and also help with the family (Allard, Haas, & Hwang, 2011). Organisations are still using the same old systems to make policies on work and life based on gender. (Allard, Haas, & Hwang, 2011) argued that new models should be developed to accommodate the changes between men and women's gender roles. Work and family are linked and there should be equal roles of men and women on both work and family life (Allard, Haas, & Hwang, 2011) and organisations should adopt gender equitable organisational systems. The next section will investigate the underlying theories with a detailed analysis of their relevance to this study.

2.3 Underlying Theories

A number of theories were considered which intersect with the researcher's epistemological values to broaden the way of thinking about gender equality and organisational performance at institutions of higher learning.

2.3.1 Equity theory

The equity theory gives an insight on factors surrounding gender discrimination and inequality. Adam's equity theory can be used as a tool to assess whether there is a just and fair treatment of employees at the work place (Lee & Raschke, 2016). In relation to this study, are women not afforded equal opportunities at work such as men in respect to their inputs and outputs? Heilman & Eagly (2008) Adam's equity theory states that there should be a balance between hard work, experience, skills

level, distinctive competencies, engagement, acceptance and motivation and rewards, salary, benefits, recognition and promotion (Shechory & Ziv, 2007). It can be argued that if inputs are greater than outputs, people feel dissatisfied and become de-motivated (Lee & Raschke, 2016) citing Adams (1965). The major argument is that women are underrepresented in the workplace when compared to men despite their efforts, competencies, skills level and experience (Lorber, 2010). Unfair treatment of women and gender bias affect a lot of women in the workplace and most of them view themselves as inferior to men (Dipboye & Colella, 2005). Equity theory is applicable in any social situation where an exchange takes place and it is applicable as a tool of evaluating gender equality and discrimination (Shechory & Ziv, 2007). In terms of promotion and recognition the Equity theory is used to evaluate the inputs given by women versus those of men against their outputs. The main question is that are women still underrepresented in the executive management positions because they are not qualified enough, they don't have enough working experience, they lack the distinctive competencies, or it is due to gender inequality? (Shechory & Ziv, 2007). Those women who have actually made it to the top, even though there are a few as compared to men, how did they get there? Is it because there was a balance between their inputs (hard work, experience, skills level, distinctive competencies, engagement, and acceptance) and their outputs (benefits, recognition and promotion)? Or they are among some of the feminists who had to fight for their rights and manage to break through? These questions are surrounding the arguments on gender inequality and discrimination in terms of equity.

The Equity Theory states that people should be rewarded according to how they have worked (Lee & Raschke, 2016) "A fair days' pay for a fair days' work" whether it's a man or a woman. It is argued that gender pay gaps exist in the workplace. Masculine skills are more valued than feminine skills and gender pay gaps affect the perceptions of equity and equality in the workplace (Heilman & Eagly, 2008). However, there are laws that have been passed in terms of fair remuneration to protect every employee irrespective of gender (Allard, Haas, & Hwang, 2011). Equity talks about a balance and it also talks about fair treatment of people. It is said that everyone is equal, a man or a woman and they should have the same roles in the workplace, society or at home (Lorber, 2010). Allard, Haas, & Hwang

(2011) argue that men's contribution to family work has not yet reached that of women even though women involvement in paid work is increasing. People with traditional gender attitudes are less likely to see unfairness in the division of labour in the workplace (Dipboye & Colella, 2005). In Sweden, a policy of setting aside two months paid leave for both fathers and mothers was implemented (Allard, Haas & Hwang, 2011). This has been done so as to change gendered workplace customs and practices in terms of equity (Allard, Haas & Hwang, 2011). The European Union (EU) implemented a gender equality program with directives that member states should comply with in relation to the reconciliation of employment and family (Lewis, 2003). Due to the global changes in the business environment, organisations should be more concerned about gender inequality in the workplace and they should put policies to integrate work and life in an equitable way for both men and women to avoid gender bias in the workplace (Lewis, 2003) because all employees should be treated fairly in spite of their gender.

Different factors can shape an employee's perceptions of their position relative to others. Male and female employees have different perceptions on their rewards, recognition and entitlement at work (Haylock, Cornelius and Malunga, 2016). The Equity Theory can be used to address the gender imbalance effects at the workplace. The gender pay gap issue is a good example of the Equity Theory as fairness is understood relative to market norms (Belton, 2018). In South Africa, women earn 25% than men and the older the woman gets, the larger the gap (Mosomi, 2019; Paton, 2019). On the other hand, the Equity Theory has its limitations. It is mainly based on the individual's perceptions, but not the actual state of affairs and in reality people are different and they have different perceptions which can affect their performance at work. The Equity Theory only takes into consideration inputs vs outputs, but does not consider other factors like personality, attitudes and characters that the individuals possess. Individual inputs should balance with outputs. The following section will discuss the Feminist Theory in relation to gender inequality.

2.3.2 Feminist Theory

The feminist theory tries to explain why there is disparity between men and women at the workplace. Some authors like (Shepherd, 2008; Moodly, 2015; Segalo, 2015;

Haylock, Cornelius and Malunga, 2016; Ndimande-hlongwa, 2016; Singh and Naidoo, 2017; Akala, 2018; Atkinson, 2018; The Global Gender Gap Report, 2018) believe that men are deemed to be superior to women hence the different rewards despite putting the same effort. Some people have the view that some positions should be left for men for example, the army commander and army officer (Lorber, 2010). This is because of the stereotype that most women lack the requisite stamina to occupy certain positions due to their nature and physique. The Feminist Theory started from the masculine economy which was dominated by men who viewed women as unequal (Lorber, 2010). It looks at gender roles and gender nature from the point of view of society, where there is the belief that women are defined by their nature rather than by their societal status (Lorber, 2010; Donovan, 2012), and are viewed as housekeepers, care givers and mothers who were generally inferior to men (Dipboye & Colella, 2005). Recently there have been gradual changes in society with women aspiring to be more than housekeepers, care givers and mothers, needing careers and respect (Donovan, 2012). Recent studies have brought about the new gender and knowledge view which says that most of the people are mistaken by assuming that the Feminist Theory undermines masculinity (Lorber, 2010). Due to modernisation and globalisation, there have been important transformations in society and the central concept of the Feminist Theory is the woman (Lorber, 2010).

Most women who are trying to make their way in a world with no gender bias are the ones who write about feminism to empower others and to bring changes (Donovan, 2012). Traditionally we have a dependent, caring woman and a rational autonomous man (Donovan, 2012). Women have always been viewed as care givers; they take care of the household (Donovan, 2012). Women have always struggled with the tension between caring and their other values in life (Lorber, 2010). Even though modernisation has been taking place, women still have a family responsibility of caring for the family and it remains a mystified and oppressive concept (Lorber, 2010).

Women have long been viewed as those who have motherhood, sisterhood and friendship characteristics and conducting research on the feminist subject is not an easy one, especially for female researchers (Stanley, 2013). Under the feminist theory, the woman was defined as the mother, sister and friend. It is said a woman is

a mother who cares for and about her family and her children so much that she can do anything for them (Stanley, 2013). As a mother, a woman provides emotional and physical support to her family by caring for them (Donovan, 2012; Stanley, 2013). A woman is also a sister who cares for other women and looks out for them (Donovan, 2012; Stanley, 2013). However, since the feminist revolution began, there has been a rift between sisterhood and professionalism when it comes to women (Stanley, 2013). It can be argued that women at the top (female executives) assign caring roles to women at the bottom, for example, a woman who works will employ another woman to take care of her family while she's at work (employing a nanny or an au pair) (Stanley, 2013). On the issue of friendship, a woman becomes acquainted to those who possess the same characteristics with her (Stanley, 2013). Feminists are sticking together through collaborative liberation in order to get gender equality (Lober, 2010; Donovan, 2012) and through the feminist revolution, there has been waves that have passed in order to create gender equality (Friedan, 2018). The First wave feminism began in the 19th and early 20th century and it was mainly concerned with women's right to vote and in 1919 in USA women granted a right to vote through a constitutional ammendment (Friedan, 2018). The Second wave feminism began in the 1960s and 1970s with women's liberation movement for gender equality and social rights (Friedan, 2018). The third wave feminism that began in the 1990s is a continuation of second wave feminism where women are fighting for gender equality and their social status in the global environment (Friedan, 2018). The Feminist Theory is the most appropriate theory for this study. The Feminist Theory gives a better understanding of the history of women, their hardships and reforms in abolishing gender inequality in the society, workplace and the business environment (Gregory, 2003). The Feminist Theory focuses on analyzing gender equality and the themes found under feminism include objectification, discrimination and stereotyping. Feminism has brought a movement towards gender equality in South Africa, but despite the efforts, gender inequality still prevails (Shepherd, 2008; Moodly, 2015; Segalo, 2015; Haylock, Cornelius and Malunga, 2016; Ndimande-hlongwa, 2016; Singh and Naidoo, 2017; Akala, 2018; Atkinson, 2018; The Global Gender Gap Report, 2018). The limitation of this theory is that it is regarded as a political theory because in most societies men are superior to women so it is not easy to study gender inequality without this perception even though it might not be the case. The

next section will give an overview of the Critical Information Systems Theory in relation to ICTs and gender equality.

2.3.3 Critical Information Systems Theory

The Critical Information Systems Theory has been used to explain the relationship between ICTs and gender relationships (Trauth & Houcroft, 2006). The critical theory seeks to expose ideological and cultural forces that facilitate gender domination and are barriers to true freedom. It provokes thinking about practices to change these power relations. It has a leaning towards critiquing and changing society as a whole. This theory mainly focuses on the power relations. It has been used as a tool of understanding women's issues on information technology (IT) related to their retention, recruitment and selection in the IT field (Trauth & Houcroft, 2006). This theory is used in order to show the changes and transformations that have been taking place in the business environment (women empowerment and gender equality). Using the Critical Information Systems Theory, it is evident that a digital divide is still prevalent between men and women despite the efforts to close the gap, and the number of men using ICTs is higher than that of women (Mariscal *et al.*, 2018; Tirado-morueta, Aguaded-gómez and Hernando-gómez, 2018; Das and Asma, 2019; Deursen and Dijk, 2019). Information systems is a field that is driven by the advancement in technology (Trauth, Kvasny, & Greenhill, 2006). It is argued that the changes in Information Systems technologies affect both men and women (Trauth, Kvasny, & Greenhill, 2006).

The benefits of Information Systems include:

- Making decision making easier due to the high quality of information and its manipulation.
- Increase the effectiveness, efficiency and profitability of an organisation. Organisations who fully maximise on their information systems gain distinctive competitive advantage.
- Make monitoring and evaluation to be an easy process.
- Provide an efficient and cost effective channel for communication and interaction.

- Streamlines the processes of a business.
- Assists in the execution of business transactions through various computer packages and software.
- By improving productivity of information processing, labour costs are reduced.

The Critical Information Systems Theory also known as the Critical Social Theory is based on the assumption that: people have the power to change their world, theory and practice must be interconnected, and knowledge of the social world is valued greatly (Trauth, Kvasny, & Greenhill, 2006). The Critical social Theory is aimed at emancipating people from psychological, social bias and barriers to social progress and this shows that people have the power to abolish gender bias and stereotypes on women (Trauth, Kvasny, & Greenhill, 2006). Gender inequality exists due to psychological, social bias and stereotype and it can be eliminated through change (Haylock, Cornelius and Malunga, 2016). However, the limitation of Critical Information Systems Theory is that it only views people as the drivers of change in the society through information systems, but it ignores other factors that can influence change such as the economy and the environment. The next section will discuss the Technology Acceptance Model to obtain a better understanding on the use of ICTs in the environment.

2.3.4 Technology Acceptance Model

The Technology Acceptance Model (TAM) explains the factors that may hinder the acceptance and use of ICTs that may be useful in promoting gender equality. The theory states that in order for technology to be accepted, it must be useful and it must be easy to use. Most of the people are lagging behind technological innovations due to ignorance, fear of change and illiteracy. It is a commonly used tool to describe an individual's acceptance and use of information systems (Holden & Karsh, 2010). The TAM was introduced by Davis in 1983 and since then other researchers have expanded on it (Holden & Karsh, 2010). Davis states that the acceptance of an individual's information systems is determined by perceived use (PU) and perceived ease of use (PEOU) (Holden & Karsh, 2010). There are several factors that influence the adoption of information technology such as social influence, effort expectancy, availability and cost, performance expectancy, individual beliefs,

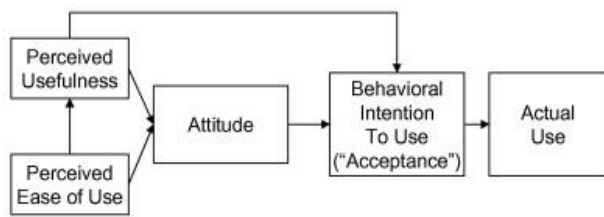
job relevance and output quality (Holden & Karsh, 2010). One category of ICTs which are easy to use and proving to be very useful are social networking platforms that have gained popularity all over the world such as WhatsApp, Facebook, Instagram, Twitter, Skype and LinkedIn. TAM can be relevant in explaining factors that can influence the use of ICTs in promoting gender equality (Holden & Karsh, 2010).

The use of ICTs depends on external and internal variables which then influence the perceived ease of use and the perceived usefulness of these information systems (Rogers, 1983), cited in (Holden & Karsh, 2010). These external variables and internal variables include ICT resources, training and development on the use of information systems and awareness of the importance of ICTs (Rogers, 1983) cited in (Holden & Karsh, 2010). Perceived use and perceived ease of use of information systems is affected by an individual's attitude which is influenced by acceptance of ICTs and is determined by the actual use of ICTs. Other models such as the Technology Acceptance Model 2, Theory of Planned Behaviour and Unified Theory of Acceptance and Use of Technology where all designed based on Davis model (Holden & Karsh, 2010). These have expanded to include other variables such as subject norm, job relevance, social influence, facilitating conditions, expectancy, image, output quality and beliefs (Holden & Karsh, 2010). These variables have an influence of the perceived use and the perceived ease of use of information systems (Straub & Gefen, 2000).

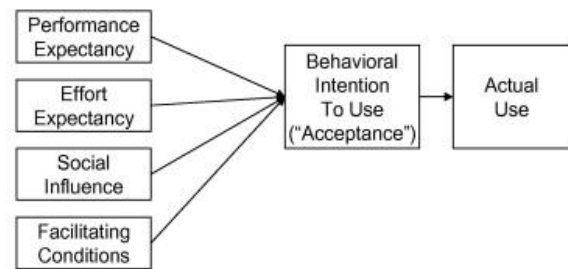
According to Holden & Karsh (2010) variables used in the Technology Acceptance Model include advantage of innovation, innovation challenges, innovation results, innovation experiments and innovation boost of the social system or image.

Figure 2.1: Technology Acceptance Model

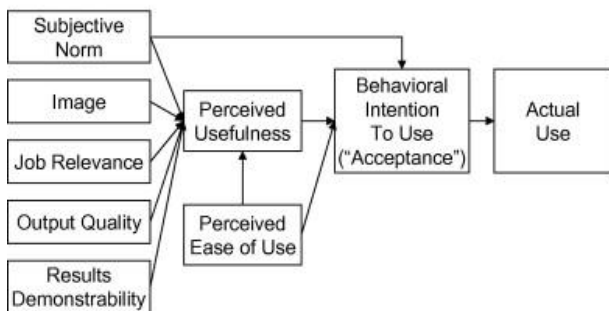
(a) Technology Acceptance Model (TAM)



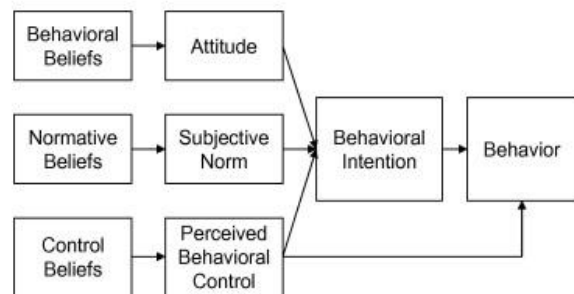
(c) Unified Theory of Acceptance and Use of Technology (UTAUT)



(b) Technology Acceptance Model 2 (TAM2)



(d) Theory of Planned Behavior (TPB)



Source: (Holden & Karsh, 2010)

Diagram A

Technology Acceptance Model – Perceived Usefulness and Perceived Ease of Use of information technology affects the attitude that people will have. If it is negative people will have a negative attitude and if it is positive then people will have a positive attitude towards the use of ICTs. The attitude will then influence the behavioural intention to use IT, whether to accept it or not. The actual use of information technologies and their innovations is dependent on the acceptance by an individual hence it is important to know what ICTs are, how to use them and what benefits they possess. If people accept ICTs, they can use it as a tool to promote gender equality.

Diagram B

Technology Acceptance Model 2- This second model was designed based on the first model which was made by Davis in 1983. The second model includes other factors that influence the Perceived Usefulness of information technology. These factors are results demonstrability, output quality, job relevance, image and subjective norm. Information technology is viewed as useful if it is relevant to the job that is being done for example many warehouse companies are using stock

management software that helps them to manage their inventory and to store a lot of data for a long period of time. In addition, if IT produces quality information that is easy to interpret and demonstrate, it will be perceived as useful. Subjective norm (societal pressures that force people to comply) has an influence on the way IT is viewed by people. A good example is that most of the people are now using social media platforms to air out their views on workplace issues including gender inequality issues and as a result, most of the people are pressured into using these platforms.

Diagram C

Unified Theory of Acceptance and Use of Technology- This theory was created based on the Technology Acceptance Model 2. It states that the behavioural intention to use IT or the acceptance of IT is based on the following factors; social influence, effort expectancy, facilitating conditions, and performance expectancy.

If all these factors are in favour of IT, it is easily accepted and if not then it is not easily accepted. In Bangladesh IT was accepted based on these factors and it is used in promoting gender equality by educating women (Ahmed *et al.*, 2006).

Diagram D

Theory of Planned Behaviour- this theory was developed from the Technology Acceptance Model. It states that behaviour is influenced by behavioural intention. This behaviour shapes the attitude that people have toward IT and its innovations. Behavioural beliefs influence attitude, normative beliefs influence the subjective norm, control beliefs influence the perceived behavioural control, and all these factors have an impact on the behavioural intention to accept IT or not. It is argued that people's behaviour and beliefs in terms of gender bias and stereotyping is hindering them from accepting and using ICTs which can be a powerful tool in eliminating gender inequality.

ICTs have increased in their percentage of use over the years, but need to increase more due to the technological advances that are taking place in today's business environment (Straub & Gefen, 2000). It can be argued that men are more affected by perceived use while women are more affected by perceived ease of use and the subjective norms through a study carried out by (Straub & Gefen, 2000).

Information systems that are used in the Technology Acceptance Model according to (Straub & Gefen, 2000) include:

1. Communication systems such as; E-mail, Cellular, Social and Digital Media Platforms, FAX and Dial-Up-Systems.
2. Office systems such as; Groupware, Database packages, Computer operations and packages like MS OFFICE.
3. General Purpose systems such as; PC, E-Commerce, Computer resource centres and Groupware.
4. Specialised business systems such as; Computerised Model, Organisational Information Systems, Case tools and Experts support systems.

According to Straub & Gefen (2000), the use of ICTs comprised of 20% communication systems, 28% general purpose systems, 27% general office systems, and 25% specialised business systems. An individual's or a user's perception can change anytime and this was the main limitation of the Technology Acceptance Model, but it is still used as a tool to measure the acceptance and use of information systems (Straub & Gefen, 2000). Women may accept and use technologies that empower them such as ICTs, in the process eliminating the digital divide and changing norms that undermine women in the workplace and in the society in general (Mariscal *et al.*, 2018; Tirado-morueta, Aguaded-gómez and Hernando-gómez, 2018; Das and Asma, 2019; Deursen and Dijk, 2019). ICTs can be useful in knowledge acquisition and sharing, making the job tasks easier, increasing job flexibility, improving communication, empowering women and reducing the gender gap at work. However, there are limitations of the Technology Acceptance Model because it did not consider other external variables, education and age which can influence the acceptance and willingness to use technology. These external variables were added by other people who developed on the theory. The next section will explain the media and gender issues and its impact on gender equality.

2.4 Media and Gender Issues

Media has a big influence on perceptions on gender, gender equality and gender bias and can be useful in fighting gender inequality and bias such as the gender

glass ceiling (Shirky, 2011). Social networking platforms such as LinkedIn, Skype, Instagram, YouTube, WhatsApp, Twitter, to mention but a few allow global communication on issues to do with gender namely stereotyping and unfair treatment of women through access to and sharing of information (Shirky, 2011). According to Shirky, (2011), a primary way that media distorts reality is the under-representation of women as compared to men. Media's images of women also reflect cultural stereotypes which creates an unrealistic view of women (Shirky, 2011). The use of the male voice over on the media strengthens the cultural view that men have authority over women (Shirky, 2011).

Even though social media has had an influence on gender inequality issues in the past years, it can be useful in breaking the glass ceiling (Loiseau & Nowacka, 2015). This has led to questions such as "Can social media effectively include women's voices in decision making processes?" (Loiseau & Nowacka, 2015). Social media is seen as a powerful driver by advocating for women's rights and gender issues to the wider public's attention and advocating for gender equality (Loiseau & Nowacka, 2015). The increased use of social media and use of ICTs poses opportunities which drive gender equality to the forefront (Loiseau & Nowacka, 2015). Social media has positively impacted on the access and sharing of information and data globally (Shirky, 2011). Print media has been very useful in the past in highlighting women's problems and the advent of the internet and digital tools now make it possible to convey information in real time (Shirky, 2011). The next section will discuss the effect of the gender glass ceiling on gender equality.

2.5 Gender glass ceiling

The glass ceiling applies to women as a group due to gender stereotype and this inhibits them from advancing higher (Shepherd, 2008; Moodly, 2015; Segalo, 2015; Haylock, Cornelius and Malunga, 2016; Ndimande-hlongwa, 2016; Singh and Naidoo, 2017; Akala, 2018; Atkinson, 2018; The Global Gender Gap Report, 2018). In 1986, the gender glass ceiling was described by the Wall street Journal as an invisible barrier for women's career advancement (Booyesen & Nkomo, 2010). Authors such as: (Eagly *et al.*, 2004), Purcell, MacArthur & Samblanet (2010) in separate studies found that most women experience challenges in advancement of their careers regardless of their job qualifications and experience. Even though the

numbers of women in employment are increasing and those attaining top positions, the numbers are relatively low as compared to men (Meyerson & Fletcher, 2000). Resonating with these findings, Graham, Lloyd & Thompson (2008); Tan, (2008); Davidson (2009); Booysen & Nkomo (2010) reported that there is evidence in most countries such as Ghana that show under-representation of women occupying executive positions. According to Ryan & Haslam (2005), the fact that several barriers that prevent women from advancing exist, shows evidence of the glass ceiling.

On the contrary, some people have the belief that the term glass ceiling is just an imagination and that some women fail to advance due to lack of requisite skills, competences and family responsibility that comes into the middle of their career development (Rai & Srivastava, 2008). In contrast, a study has shown that few of the top executive officials are women and that barriers which prevent women from advancing to higher positions include prejudice, poor career planning, difficulty in balancing family and career plus unsupportive working environment (Jackson, 2001). According to (Jawar & Hammasi, 2006), women who are working in higher education institutions are not equally represented in corporate level administration positions and men advance at a faster rate than women (Stanford-Blair & Dickman, 2005).

A study by Jackson (2001) showed that barriers such as family responsibility and gender bias can prevent women from attaining top positions. According to an analysis in Table 1.1, it is evident that women in higher education institutions are under-represented in executive positions such as that of chancellor and vice chancellor. According to Sealy & Vinnicombe (2012), in the USA women only held 16.6% of Fortune 500 board seats and only 6.6% executive positions. In South Africa, women earn 25% less than men and the gender pay gap is 33% between the ages of 36 and 44, furthermore, only 3.3% of the companies listed on the Johannesburg Stock Exchange have female chief executive officers with the rest being male (Moodly, 2015). The Federal Glass Ceiling Commission (FGCC) of 1995 confirmed that the glass ceiling exists (Jackson, 2001). Similar to findings by (Booyesen & Nkomo, 2010) they confirmed that very few women attain executive positions in higher educational institutions in comparison to men. Another study by (Thornton 2013) showed that even though the gender glass ceiling exists, more and more people are attaining executive and top positions. The gender class ceiling

should be eliminated because it can affect the organisations negatively. Organisations that suppress women miss out on utilising the skills, capabilities and distinctive competences possessed by women (Hoobler, Lemmon & Wayne, 2011).

According to (Mahmudul, 2012), most women are surpassed when it comes to promotions based on stereotypes that they cannot lead men. The glass ceiling is not only about gender, but it is about the woman herself. Other industries such as services and media are gender balanced, but the top positions are mostly held by men (Bradstreet, 2004).

According to the statistics, the number of female managers and their income increased rapidly over the years and the participation of women in managerial decision making also increased, but this was mainly in care-taking and service occupations (Corrigan, 2002). The American College President Report which was issued by the American Council on Education says that the women who held senior staff positions were 40% with 21.1% being the college presidents in America with the rest being men (Corrigan, 2002). The report also showed that, 83% of business officers, 75% of academic deans and 84% of college presidents are men revealing that there is gender inequality (Corrigan, 2002). Women in all types of institutions were also found to earn less than men (Corrigan, 2002). In South Africa, women earn 25% less than men and the gender pay gap is 33% between the ages of 36 and 44, furthermore, only 3.3% of the companies listed on the Johannesburg Stock Exchange have female chief executive officers with the rest being male (Moodly, 2015). So it shows that the glass ceiling has been long existing because the statistics haven't changed much in South Africa. It is important to investigate the existence of the gender glass ceiling in the context of South African institutions of higher learning and to explore how ICTs can be used as a tool in promoting gender equality. The next section will discuss the link between ICTs and gender equality.

2.6 Information Communication Technologies and gender equality

ICTs have the potential to enable women to obtain and improve their skills through innovation (Mariscal *et al.*, 2018; Tirado-morueta, Aguaded-gómez and Hernando-gómez, 2018; Das and Asma, 2019; Deursen and Dijk, 2019). ICTs have enabled electronic applications attracting mostly the younger generation and the ICT field is an influenced area by the gender and maturity perspective (Mahmudul, 2012). ICTs

are constantly breaking socio-economic barriers through material change, cognitive change, perceptual change, relational change and technological change (Mahmudul, 2012). The use of ICTs can result in capacity building towards gender equality in education as well as employment (Mariscal *et al.*, 2018; Tirado-morueta, Aguaded-gómez and Hernando-gómez, 2018; Das and Asma, 2019; Deursen and Dijk, 2019). Social media platforms have brought the views of gender inequalities into the public domain resulting in affirmative measures to abolish it (Mariscal *et al.*, 2018; Tirado-morueta, Aguaded-gómez and Hernando-gómez, 2018; Das and Asma, 2019; Deursen and Dijk, 2019). On the other hand, there is a digital divide between men and women whereby women's access and use of ICTs is limited as compared to men in general (Sandys, 2005; Suresh, 2011). Digital technologies have positive and negative effects on men and women and it can be argued that both men and women encounter the same effects of IT innovations (OECD, 2017). It is believed that rapid digital changes and transformations will enhance the position of women in the workplace, but whether digitalisation will have a positive or negative effect on gender gaps in the workplace will depend on government policies (OECD, 2017). Although the use of ICTs can increase efficiency, flexibility and employment of women, the effects of digitalisation will depend on the skills levels (OECD, 2017). It can be argued that the impact of social media platforms on gender gaps is not clear still (OECD, 2017).

A study conducted by Mahmudul, (2012) showed that ICTs can enable women to obtain and to improve their skills and this can be achieved through innovation. Women can be educated through distance learning using ICTs such as computers, smart phones and tablets with WIFI (Mahmudul, 2012). ICTs and new technologies attract the younger generation in the 21st Century and hence young girls and women can have access to them and can utilise them to enhance themselves (Mariscal *et al.*, 2018; Tirado-morueta, Aguaded-gómez and Hernando-gómez, 2018; Das and Asma, 2019; Deursen and Dijk, 2019). He also found that ICTs allow women to discover, share and spread information with the potential for women empowerment via capacity-building, employment and skill development. (Sandys, 2005) says that ICTs can break socio-cultural barriers thereby abolishing gender bias. In agreement, Mahmudul (2012), citing (Ahmed *et al.*, 2006) says tha ICTs enable socially-discriminated women to participate in the economy reducing gender stereotyping

and perceptual bias about gender. Women used to struggle with confidence due to the fact that they always believed that they were inferior to men until recently (Ahmed *et al.*, 2006). This is gradually changing due to ICTs which is enabling women to gain more confidence especially on social media platforms. ICTs have led to cognitive change and material change (Mahmudul, 2012). Women are no longer ignored in decision making processes in most of the countries nowadays and their awareness in the society has been improving (Mahmudul, 2012). Women are gaining power and are now independent through the use of ICTs (Sandys, 2005)

Cummings & O'Neil (2015) concluded that ICTs have the potential to:

- Develop knowledge and skills of women in the society and in the workplace.
- Enhance the technical expertise and competence of women through education and awareness.
- Enable women to gain technological empowerment.
- Allow women all over the world to share information which can enhance their position in the society and in their households, thereby eliminating gender bias.
- Increase the awareness of women on the national and global issues thereby and can promote gender equality.

However, despite the fact that ICTs (radio, computers, WIFI, mobile phones, tablets, laptops and iPads etc.) can be used to promote gender equality, there are other factors that affect the use of ICTs. This includes political, economic, social, and technological situation in a society or in a country (Suresh, 2011). Other factors that affect the use of ICTs to promote gender equality are computer literacy, language skills, infrastructure, connection costs and social class (Mariscal *et al.*, 2018; Tirado-morueta, Aguaded-gómez and Hernando-gómez, 2018; Das and Asma, 2019; Deursen and Dijk, 2019).

ICTs have been improving societies through poverty reduction, government social responsibility on issues

of transparency, responsibility, accountability, improvement and health and education; and empowering citizens by building social organisation around human rights and gender equality (Sandys, 2005; Cummings & O'Neil, 2015).

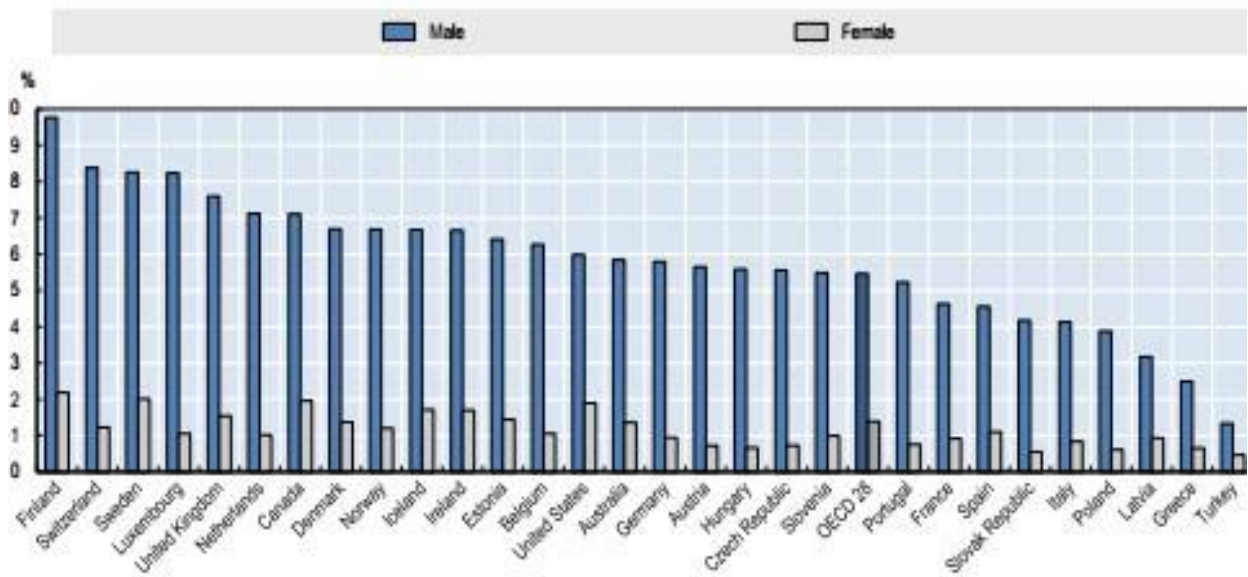
According to (Sandys, 2005), these are the examples of the use of ICTs for women empowerment:

- a) Senegal- Multimedia Caravan Project provided women in the rural areas with the app that encouraged them to develop their own ideas on how ICTs can be used to develop them in terms of their needs, goals and objectives.
- b) Kenya- women and men in the weaving field were trained on how to learn new weaving techniques using the internet and for them to be able to compare prices of weaving products being sold by others online.
- c) Uganda- Uganda Media Women's Association established a radio programme called Mama FM which allows women to be aware and share information on matters of equality, human rights, governance and challenges that they are facing and how to overcome such challenges at the workplace, in the household and in the society.
- d) Poland- Network of East-West Women shared information which can be used to elevate the participation of women in the European Union succession process in their candidate countries.

However, even though there have been improvements on gender equality in other countries, a digital divide on the use and access of ICTs between men and women exists (Mariscal *et al.*, 2018; Tirado-morueta, Aguaded-gómez and Hernando-gómez, 2018; Das and Asma, 2019; Deursen and Dijk, 2019). According to Suresh (2011) only 23% of women have access to ICTs while 77% percent of men do. This shows that most women are still caught up in the digital divide. This can be due to the fact that women have the following constraints, lack of access to ICTs, illiteracy in using ICTs, lack of funding and infrastructure for the use of ICTs, lack of connectivity and lack of confidence (Suresh, 2011; Cummings & O'Neil, 2015).

Figure 2.2: Male and Female IT specialists from OECD aggregate on countries where data is available

ICT specialists as a percentage of all male and female workers (2014)



Source: (OECD (2017))

The OECD (2017) in their studies found that the use of ICTs is mainly determined by the level of skills that a person has and on government policies. They also found that the number of IT specialists for men is higher than that of women in most of the countries (Figure 2.2) and this is one of the reasons why there is a digital-divide in most countries all over the world. Table 2.1 shows the empirical studies that have been conducted on similar and related topics, their findings and the gaps that the researcher has found.

Table 2.1: Empirical studies

Authors	Topic	Purpose and methodology	Findings	Comments and gaps on the literature
(Alves & Steiner, 2017)	Globalisation, Technology and Female Empowerment: Breaking Rights or Connecting Opportunities?	Explored the role of ICTs in female empowerment. They used a panel data technique and they used estimation models and previous literature for	Women's participation in the labour force in the upper middle countries was positively impacted by ICTs. Women are underrepresented as compared to men based on	The researchers used estimation models, but they did not consider other traditional factors that explain the reason why women's participation at the top level is lower than that

		<p>their findings and conclusions. They conducted their studies on upper middle and lower middle countries based on the Gender Gap Report of 2014.</p>	<p>the Gender Gap Report of 2014.</p>	<p>of men hence the researcher sees a gap worth exploring. They conducted their research based on previous literature, the Gender Gap Report of 2014 to make comparisons, but they did not conduct an empirical study hence the researcher sees a gap.</p>
<p>(Steeves & Kwami, 2017)</p>	<p>Interrogating Gender Divides in Technology for Education and Development: the Case of the One Laptop per Child Project in Ghana</p>	<p>They explored the gender divide in schools and they were particularly targeted at the use of ICTs. They conducted interviews on government officials, school children and teachers at 2 schools, rural and urban in Ghana.</p>	<p>There was still a digital divide between male and females in Ghana especially in the urban school they conducted research on, than in the urban school.</p>	<p>They conducted their research only at 2 schools, urban and rural in Ghana and they generalised their findings of the digital divide and gender bias to the entire population.</p>
<p>(Dewalt, 2017)</p>	<p>Gender equality and authenticity: a study of women in IT leadership</p>	<p>The study aimed to explore women's experiences in the workplace in the IT industry through self-reflective and emotional experiences. She conducted 9 interviews from women who held senior-level leadership positions in Fortune 500 IT companies. She said that women face more</p>	<p>25 per cent of IT workforces are women. 10 per cent corporate officers are women. 9 per cent of women hold corporate positions. Women drop out of the IT industry on medium level positions. She concluded that in order to develop skill-based authenticity for women; women should identify</p>	<p>This study shows that there is an equality of women and men who hold top positions in the Fortune 500 companies that (Dewalt, 2017) conducted her studies on hence the researcher sees a gap worth exploring in 2019 to see if the situation is still the same or not, and if so why? In her</p>

		<p>challenges than men in the workplace. Her studies examined the thoughts, feelings and experiences of women.</p>	<p>their personal values, build their emotional intelligence, develop a strong support system, and embrace their self-concept.</p>	<p>studies,(Dewalt, 2017) only interviewed 9 women at top in only 3 months at Fortune 500 companies in the IT industry only and generalised her findings hence the researcher sees a gap worth exploring. In addition, (Dewalt, 2017) only looked at the personal experiences and feelings of only 9 women with top positions, but did not concentrate on those of men or those at the bottom, the organisational policies and culture hence the researcher sees a gap worth exploring.</p>
<p>(Berki & Tiainen, 2019)</p>	<p>The re-production process of gender bias: a case of ICT professors through recruitment in a gender-neutral country</p>	<p>They wanted to explore the representation of women in the technology and science field in Finland. They focused their studies on one university on their selection of ICT professors.</p>	<p>They found that there was male dominance in the ICT professors at the university they conducted their studies on. They also found that women are still under-represented in the workforce, particularly in the ICT industry.</p>	<p>This research was only conducted at one university in Finland and the findings were generated to the whole population. This research shows that women are still under-represented in the ICT field in Finland, but the researcher wants to explore this research in Africa to see if the situation is the same. If so,</p>

				why?
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Source: (Alves & Steiner, 2017; Dewalt, 2017; Steeves & Kwami, 2017; Berki & Tianeni, 2019)

2.7 Chapter Summary

This chapter gives a comprehensive review of literature on the concept of the glass ceiling, ICTs and gender issues and the development of a theoretical framework centred on the objectives of the study. This chapter precedes the next chapter which gives an outline of how the study was carried out giving details on the research philosophy and design and the justification of the chosen methods.

CHAPTER THREE

Methodology

3.1 INTRODUCTION

This chapter will explore different research methodologies and the ones that the researcher will use to conduct the study in correspondence to the research questions and objectives. It will describe the techniques that the researcher will use to collect data, the research design, population and sampling and how data will be analysed and interpreted, guided by the underlying theories and informed by the literature review. This chapter will also explain the ethical issues in depth.

3.1.1 RESEARCH OBJECTIVES RE-ALIGNED

As stated before in Chapter 1, the main purpose of this research is to explore how ICTs can be used to promote gender equality in the workplace. The following research questions were formulated for this research:

- What is the extent of gender inequality in a selected higher education institution in South Africa based on the perceptions of a select number of the university staff?
- Are a select number of the university staff members aware that ICTs can be used as a tool in promoting gender equality?
- To what extent are ICTs currently being used to promote gender equality in a selected higher educational institution in South Africa?
- In which ways can ICTs be used to promote gender equality in a selected higher educational institution in South Africa?

In order to answer the following research questions, the following research objectives were formulated which were the main focus of the study:

1. To investigate the extent of gender inequality in a selected higher education institution in South Africa based on the perceptions of a select number of university staff

2. To establish if a select number of the university staff members are aware of the fact that ICTs can be used as a tool to promote gender equality at the workplace.
3. To establish the extent to which ICTs are currently being used to promote gender equality at a selected higher education institution in South Africa.
4. To find ways in which ICTs can be utilised to promote gender equality in the workplace.

The following research methods, design and philosophies explained in detail below were chosen for this study and the researcher justified why they were appropriate for the study, in correspondence with the above-mentioned research questions and objectives.

3.2 RESEARCH METHODS

Research methods (qualitative or quantitative) are dependent upon the main purpose of the study (Saunders *et al.*, 2009). If the research is explanatory, quantitative studies will be appropriate. However, if the research is exploratory then qualitative studies will be suitable and if the research is descriptive, mixed methods will be suitable (Cohen *et al.*, 2007). This research is exploratory to determine how ICTs can be used to promote gender equality at the workplace, so a qualitative study is the most suitable.

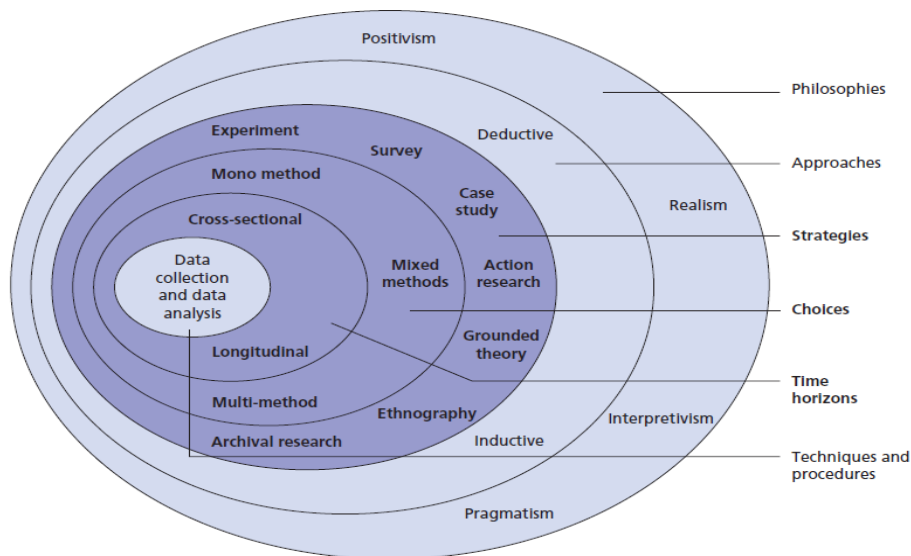
Table 3.1: Comparison of quantitative and qualitative methods

QUALITATIVE METHODS	QUANTITATIVE METHODS
<ul style="list-style-type: none"> • Research techniques- Interviews, Observations, Open ended questionnaires • Qualitative data analysis for example thematic analysis and transcription • Data collected in the form of audios or texts • Design based on social constructivism • Sample size can be as small as one and the research problems can become the research questions • Interpretation based on research participants perspectives • Inductive theory • Interpretive • Social enquiry 	<ul style="list-style-type: none"> • Research techniques- Questionnaires and observations • Statistical data analysis for example data coding, bar graphs an pie charts • Data collected in the form of units for example characteristics such as height • Design based on natural sciences to formulate a hypothesis • Sample size can be as small as 50 depending on the population and findings can be generalised to the whole population • Measuring is the key and it shows the relationship between variables • Deductive theory • Positivism • Objectivism • Natural sciences

Source: (Cohen et al., 2007; Saunders et al., 2009; Collis, Jill; Hussey, 2014; Hussey and Hussey, 2015; Maxwell & Reibold, 2015; Bryman, 2016)

Based on the comparisons given in Table 3.1, this research is a qualitative study which is based on social constructivism on how ICTs can be used to promote gender equality. The next section will describe the research philosophies which determined the type of methodology to be adopted when conducting research. Saunders *et al.* (2009) constructed a “research onion” to explain the various research methods that can be used.

Figure 3.1: The Research Onion



Source: (Saunders et al., 2009)

From the research methods that are shown on the diagram above, both qualitative and quantitative methods are important when conducting research because it is important to consider overall approaches (Collis & Hussey, 2009). Using both methods is necessary because each method will cover the limitations of the other one. Qualitative research is more subjective (soft science) while quantitative research is more objective (hard science) (Saunders *et al.*, 2009; Kawulich & Chilisa, 2015). On quantitative research facts are bias free and value free while facts can be biased and value-laden on qualitative research. Quantitative research tests theory while qualitative research develops theory (Collis & Hussey, 2009) and in this case, the research is fit for qualitative methods due to the sensitive nature of the study. The study is of a sensitive nature because it talks of gender inequality which can raise emotions and feelings of the respondents, and gender has always been among other sensitive topics such as religion, race and politics. The researcher used qualitative research to develop theory on the research that has been done in the past on how ICTs can be used in promoting gender equality. The researcher used qualitative methods through communications, case studies and observations (Stake, 1994). This method gives a better understanding of what is happening, who it is affecting and how it can be improved (Bryman, 2012). The section below gives a clear explanation of the research philosophies.

3.3 RESEARCH PHILOSOPHIES

Research paradigms are combination beliefs of ontology and epistemology between researchers about how problems can be addressed for example critical, positivist and constructivist (Saunders *et al.*, 2009). The research paradigm for this study is critical paradigm because it is a qualitative research that is concerned with a social enquiry (Saunders *et al.*, 2009; Bryman, 2012). Qualitative and quantitative methods have different epistemological and ontological assumptions (Scotland, 2012). Epistemology is the theory of knowledge, beliefs and assumptions that we have on the nature of knowledge (Cohen *et al.*, 2007; Saunders *et al.*, 2009). Ontology is the assumptions and beliefs we hold on the nature of existence and being (Bryman, 2012). According to Bryman (2012); Scotland (2012); Kawulich & Chilisa (2015) qualitative approaches are better suited to social enquiry and quantitative approaches are suitable for studying the physical and the natural world. The critical paradigm was used because it was deemed appropriate by the researcher to investigate the prevalence of gender inequality and to study the in-depth knowledge on the use of ICTs to promote gender equality. A detailed explanation of the research paradigms is given below.

3.4 RESEARCH PARADIGMS

3.4.1 Scientific paradigm or positivism

Positivism is the study of the natural world and its main focus is to explore and explain the relationships between the variables and it identifies the causes which will then lead to an outcome (Bryman, 2012). This paradigm is mainly concerned with predictions and generalisations from quantitative data (Saunders *et al.*, 2009). Positivist ontology is centred on the belief that research objects exist in their own natural real world that the researcher has nothing to do with (Scotland, 2012). Positivist epistemology entails that the researcher will acquire knowledge from the research objects or subjects about their natural world that they exist in (Cohen *et al.*, 2007). Under this paradigm, the researcher and the research participants are two

separate entities and the researcher will explore the world that the research participants exist in so that he/she can get a better understanding and draw statistical conclusions (Collis & Hussey, 2009). A deductive approach is most suitable for this paradigm through tests, experience and observations which will be generalised to generate quantitative data (Bryman, 2012). The main disadvantage of this paradigm is that it is not easy to really understand the natural world and then apply it to the social world (Bryman, 2012). It is not easy to control and simplify variables in academic research (Saunders *et al.*, 2009). It can be argued that no scientific explanation of human behaviour is sufficient because some variables are not easily identifiable (Berliner, 2002). Sometimes statistical findings are misused and misinterpreted and practical significance relies on the sample size of the study (Bryman, 2012; Scotland, 2012). However, even though there are limitations to this paradigm, it is useful especially for quantitative studies and it was not fit in exploring the role of ICTs to promote gender equality at the workplace. The next section will describe the interpretive paradigm.

3.4.2 Interpretive paradigm

According to (Bryman, 2012) the interpretive paradigm is mainly focused on the ideologies of the social world. In the social world, different individuals have different perceptions, attitudes and characters, and they accept meanings in different ways (Saunders *et al.*, 2009). One way of really understanding the social world is to understand the ideologies of the individuals that live in it (Cohen *et al.*, 2007). The interpretive paradigm brings out most of the social forces and structures (Bryman, 2012). The ontological position is relativism with the view that reality is subjective and varies among individuals and that our realities depend on our conscience (Scotland, 2012). The epistemological position of this paradigm is based on the real world and the notion that the real world does not exist on its own, but rather with entities (Scotland, 2012). The appropriate methodologies for this paradigm would be case studies, phenomenology and ethnography (Bryman, 2012). It is most suitable for a qualitative study and an inductive approach is the most appropriate approach for this study (Cohen *et al.*, 2007). The researcher has to engage with participants, creating a good relationship in order to get their ideologies in their social world (Bryman, 2012).

The main disadvantage of the interpretive paradigm is that reaching a consensus is challenging because it is subjective, varies among individuals and triangulation will not be easy (Bryman, 2012). It can be argued that knowledge is not easily transferable because the social world is always transforming (Saunders *et al.*, 2009). Researchers have to be involved in personal information and some information is sensitive especially issues about society, religion and culture. Understandings are shaped by ideologies (traditions, prejudices, stereotypes) (Bryman, 2012). Even though this paradigm has its cons, it is most suitable for qualitative studies but however the researcher adopted the critical paradigm because it was the most suitable one to determine how ICTs can be used to promote gender equality at the workplace.

3.4.3 Critical paradigm

According to (Cohen *et al.*, 2007), we are born into a world that already has a set of beliefs and history and the critical paradigm is normative. It considers how things should be done. Researchers and research participants are both subjects who are concerned with unveiling reality by critically analysing it and reshaping knowledge under this paradigm (Saunders *et al.*, 2009; Bryman, 2012; Scotland, 2012). It can be argued that language is used either to empower or weaken individuals (Bryman, 2012). The ontological position for this study is historical realism and it states that reality has been influenced by the ethic and gender values, the society, economy, political and cultural environment (Bryman, 2012). The critical paradigm is based on the fact that reality can be changed by human action and it is mainly centred on Marxism, Queer Theory and feminism (Bryman, 2012). The epistemological position of the critical paradigm is subjectivism and states that knowledge is constructed socially and influenced by power relations that exist in the society (Bryman, 2012). Critical methods are suitable for this paradigm and these are: journals, open ended questionnaires, observations and interviews (Bryman, 2012). It is the most suitable paradigm for this study which seeks to explore the role of ICTs in promoting gender equality. The critical paradigm is also suitable for qualitative studies which involve thematic interpretation of qualitative data (Cohen *et al.*, 2007; Bryman, 2012) to explore how ICTs can be useful in promoting gender equality. The main disadvantage of this paradigm is that it is not favoured by existing policy makers because it brings changes in the existing systems (Cohen *et al.*, 2007) in terms of

transparency, accountability and responsibility. It is not easy to conduct because Marxism, Queer Theory and Feminism are sensitive topics that can be misinterpreted due to the history surrounding them (Cohen *et al.*, 2007). Under this paradigm, change is not guaranteed (Bryman, 2012). It can also be argued that the critical paradigm stereotypes participants and labels them as belonging to a certain category (Cohen *et al.*, 2007). However, all the research paradigms are applicable in academic research (Bryman, 2012). The scientific/positivist paradigm seeks to generalise findings, the interpretive paradigm seeks to understand the social world and the critical paradigm seeks to emancipate individuals in the social world (Bryman, 2012). This research is about gender equality which is a sensitive topic and it stereotypes participants as males and females and other participants may not be comfortable in addressing the issue that's why the researcher had to apply the ethical principles to prevent harm to participants. The following section will give a detailed explanation on the different types of research designs.

3.5 Research Design

According to Saunders *et al.* (2009) the research design is the road map of turning a research question into a research project. It is a plan of how the researcher goes about answering the research questions (Kawulich and Chilisa, 2015). The research design used in this study is a case study. This was chosen because it was appropriate for this study.

3.5.1 Types of research design

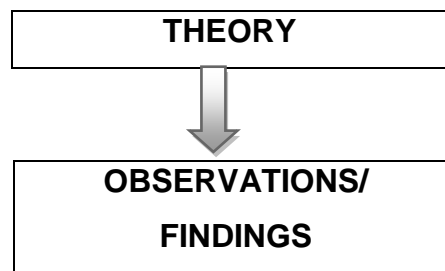
- **Biographical-** The author uses archival documents such as media, writings, speeches and interviews to write a story (Bryman, 2012). The researcher wanted to collect primary data and not rely on secondary data only so as to get an in-depth understanding of how ICTs can be used to promote gender equality. In this regard, the biographical method was not appropriate.
- **Phenomenology-** The author understands an event based on the feelings, reactions, experiences and perceptions of individuals on that event (Cohen *et al.*, 2007). This is mainly suitable for an event. For this research the researcher wants to explore the role of ICTs in promoting gender equality hence a case study is more suitable.

- **Grounded theory-** The researcher develops a theory based on a research situation and data (Saunders *et al.*, 2009). This design is not sufficient to answer the research questions on how ICTs can be used to promote gender equality.
- **Ethnography-** The author focuses on studying a group of people based on their culture and he/she becomes part of that culture (Bryman, 2012). This type of research design will not be adequate to give information on whether ICTs are useful in promoting gender equality or not.
- **Case study-** The researcher carries out an in-depth analysis of people, relationships or events which are bound by a common factor (Cohen *et al.*, 2007). This is the best design to see how ICTs can be used to promote gender equality at a selected academic institution.
- **Framework approach-** The researcher analyses data by case and theme through a process of summarisation and is more suitable for policy development and health research (Bryman, 2012) and not to determine the role that ICTs play in promoting gender equality at the workplace.

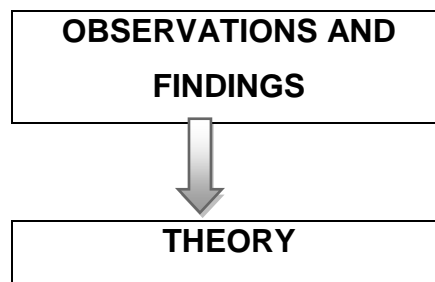
The case study design was chosen as it was found appropriate to investigate the prevalence of gender inequalities at a selected academic institution. Furthermore, the study required knowledge on the possible use of ICTs to promote gender equality which solicited for opinions and feelings suitable for case study research that is in most cases qualitative and exploratory. The research design and methods is determined by deductive or inductive theory of research (Saunders *et al.*, 2009; Scotland, 2012). The research theories will be explained below.

Figure 3.2: Deductive and Inductive approaches to the relationship between theory and research

Deductive approach



Inductive approach



Source: (Bryman, 2012)

3.6 Deductive and Inductive Theory

From Figure 3.2, the deductive approach is when the researcher draws on what is known in a particular domain and on relevant theoretical ideas so as to formulate a hypothesis which will be translated to operational terms (Bryman, 2012). The theory and the hypothesis shape how research is conducted and they drive the research process (Saunders et al., 2009; Bryman, 2012). Deductive approach is associated with quantitative research.

The inductive approach is when the researcher deduces implications of the research findings for the theory that made it necessary (Bryman, 2012). Inductive approach is associated with qualitative research and this study adopted an inductive approach. Both deductive and inductive approaches were used to address the main purpose of the study which was evaluating the role of ICTs to promote gender equality at a selected higher educational institution. The demarcation of the study which was mentioned before in Chapter 1 is stated below.

3.7 Demarcation of the Study

The study was focused at only one higher education institution in South Africa due to time constraints. The study was restricted to the role of ICTs in promoting gender equality in the workplace. The next section gives more details about the research population.

3.8 Population

For this research, the population is both academic and non-academic staff (chancellor, deputy chancellor, Dean, Deputy Dean, Program Director, Head of Department, Professor, Lecturer, Research assistant, Administration assistant and Senior secretary) at a university. According to (Saunders et al., 2009) a population is a set of all members that the researcher wants to conduct the study on. In this study 20 participants were used based on literature from previous scholars (Bryman, 2012). Both men and women were chosen to provide a balanced and not one sided view.

3.9 Sampling

Sampling is the selection of a group of people who will be used in data collection and investigation (Saunders *et al.*, 2008). There are two types of sampling methods which are probability and non-probability sampling (Saunders *et al.*, 2008). Probability sampling techniques use random selection techniques and the total population is known with all subjects having an equal opportunity of being chosen yet non-probability sampling methods allow the non-random and subjective selection of subjects (Saunders *et al.*, 2008). Non-probability sampling techniques are prone to bias because they do not represent the entire population as compared to probability sampling techniques (Bryman, 2016). Probability sampling methods are more suitable for experimental research and non-probability sampling methods are suitable for pilot studies, hypothesis formulation, case studies and qualitative studies (Collis, Jill & Hussey, 2014) such as this one. Types of probability and non-probability sampling techniques are discussed in the next section.

3.9.1 Types of probability sampling techniques

- Simple random sampling- the research participants are added to a list and then selected randomly through a computer system or a ruffle (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018). This method is not suitable in evaluating how ICTs can be used to promote gender equality.
- Stratified random sampling- the research participants are classified either by age, gender or social status and then selected randomly from the different classes (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018). It is mainly suitable for statistical outcomes (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018). This method is suitable for quantitative and not qualitative research hence it will not be fit to answer the research questions for this qualitative case study.
- Systematic random sampling- research participants are given arithmetic numbers and are selected according to an arithmetic number progression whereby the difference between any two consecutive numbers will be the same for example, ...13; 18; 23...etc. (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018). This is most suitable for quantitative research and not for evaluating the role of ICTs to promote gender equality.
- Cluster random sampling- it is used when the size of the population is large and the researcher has to identify boundaries for example the Asian continent and the boundaries will be countries in Asia (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018). The researcher includes all research participants from the boundaries (with all boundaries having an equal chance to be selected) and selects randomly. This is not appropriate for this qualitative study in determining the role that ICTs play in promoting gender equality.
- Mixed random sampling- this is when two or more sampling techniques are used at different stages depending on the type of the research particularly in the field or in the laboratory (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018). This is not appropriate in determining the role that ICTs play in promoting gender equality.

3.9.2 Types of non-probability sampling techniques

- Convenience sampling- the samples are chosen due to the fact that they are convenient to the researcher and easy to recruit (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018).
- Purposive sampling- the samples are chosen due to their characteristics and due to the objectives of the research (Cohen et al., 2007). The research participants were conveniently chosen to answer the research questions on how ICTs can be used to promote gender equality.
- Consecutive sampling- all the accessible research participants are part of the sample (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018). This is not appropriate for this case study in determining the role that ICTs play in promoting gender equality.
- Quota sampling- researcher represents the research participants equally depending on the characteristics such as gender, age religion, race, social status, education, etc. (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018).
- Judgemental sampling- This is also known as purposive sampling. Research participants are chosen with a purpose in the researcher's mind (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018). The researcher believes that other subjects are more suited for the research than the others (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018). This method was chosen as the fit one to show how ICTs can promote gender equality at the workplace.
- Snowball sampling- suitable when the population size is small. This is hardly representative of the whole population (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018). The researcher identifies a research participant who then nominates other participants he/she thinks meet the criteria for the research (Cohen et al., 2007; Collis, Jill & Hussey, 2014; Bergin, 2018). This is not appropriate in determining the role that ICTs play in promoting gender equality.

All sampling methods are important in research and it is vital for the researcher to choose the most appropriate technique for his/her study. In this study, the researcher used non-probability sampling techniques. Purposive sampling was used to pick the

20 participants for the study. According to Collis & Hussey (2009) the main thrust of purposive sampling is focusing on specific characteristics of a population of choice which will help answer research questions stated in the beginning of this chapter. The population was divided into two main groups namely academic and non-academic staff and two sub groups men and women. The sub groups were further divided into ordinary employee, middle management and top management. Participants were conveniently chosen in all sub groups with an even number of men and women being chosen as sources of data. Purposive sampling was used because it was the best method in selecting participants which would give a balanced analysis of the role of ICTs in promoting gender equality at the selected academic institution.

The sampling criteria which were used to select the respondents are as follows:

- The respondent should be a permanent male or female employee of the institution under study
- The respondent must be located in the Western Cape Province of South Africa
- The respondent must either be an ordinary employee (administration employee, senior lecturer or lecturer), middle management (head of department), or executive management (dean, chancellor or vice chancellor) of the institution under study

Table 3.2 shows the respondents' profile, the sample size and why they were selected.

Table 3.2: Research sample and respondents' profile

Group/Gender	Male	Female	Reason for researcher's choice
Ordinary Employee	3	3	Ordinary employees are employees of the institution other than the executive management. An ordinary employee is an everyday employee. The researcher mainly targeted administrative employees, senior lectures and lecturers who have a fair chance of using ICTs at the selected institution and who have a fair chance of advancement to top executive positions from the researcher's point of view. An administrative assistant is a person employed by an individual or in an office to assist with correspondence, keep records, make appointments, and carry out similar tasks (Soanes & Stevenson, 2008). A lecturer is a person who gives lectures, especially as an occupation at a university or college of higher education. This will help with answering the research questions as stated in Chapter 1 and 3.
Middle Management	4	4	This involved conducting interviews with the HODs (Head of Departments) at the selected Higher education institution. HODs are heads of departments that are expected to work together with the college and school educational leadership to ensure high

			<p>standards of teaching and learning practice and processes while being guided by education officers (Soanes & Stevenson, 2008). These were selected in order to meet the research objectives a stated in the beginning of the chapter. For a person to become an HOD it means they have acquired education, skills and experience in order to acquire a management role, be it a man or a woman, which is what the researcher wanted to analyse from the get go.</p>
<p>Senior Management</p>	<p>3</p>	<p>3</p>	<p>The senior management included the executive management of the selected university (the deans, chancellor and vice chancellor). Only a few in the executive management were interviewed. The executive management were chosen because they could give the researcher an insight as to how they acquired those positions, male or female, what they have experienced, and what their insight on the role of ICTs to promote gender equality were executive management. The executive management is responsible for the day-to-day management of the company. It consists of the President and chief executive officer (CEO) and other executives. Executive</p>

			<p>management's responsibilities include overall conduct of the business and all operational matters, organisation of the company as well as allocation of resources, determination and implementation of strategies and policies, direction-setting and ensuring timely reporting and provision of information to the Board. Executive management is also responsible for oversight, implementation and audit of environmental, social and related policies (Soanes & Stevenson, 2008). This position cannot just be acquired by anyone, but you should be qualified for that and you should have management traits alongside other traits, hence the researcher seeks to meet the research objectives as stated at the beginning of this chapter from this sample.</p>
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Source: Author's own construction

According to Dworkin (2012) "there are many articles, book chapters, and books that suggest that 5 to 50 participants are enough for in-depth interviews." According to Barker & Edwards (2012) "while many experts agree that saturation is required for in-depth interviews and grounded theory, Adler and Adler encourage graduate students to have a sample of between 12 to 60 participants with 30 being the mean. On the other hand, Ragin (2008) suggests 20 participants for a master's thesis and 50 for a doctoral dissertation. The researcher's choice of 20 for all of the university staff groups: academic and non-academic staff (chancellor, deputy chancellor, Dean, Deputy Dean, Program Director, Head of Department, Professor, Lecturer, Research

assistant, Administration assistant and Senior secretary) was thus adequate. Qualitative research is mainly exploratory and qualitative researchers may not be sure on the exact amount of data to collect. According to Bryman (2012), it is not easy to determine the number of qualitative interviews that are required to complete a project and to implement it. In this case, the researcher held 20 interviews because of the purpose of this research which was to evaluate the role of ICTs in promoting gender equality in the workplace. The data collection instruments are discussed in the following section.

3.10 Data Collection Instruments

When conducting this study, various considerations were taken in the development of research instruments such as objectivity, validity and reliability. These tools are used to measure research instruments (Collis & Hussey, 2009). There are three data collection instruments in research namely; interviews, observations and questionnaires (Bryman, 2016).

An observation is when the researcher with or without research assistants observes a particular group of people under study so as to answer the research questions (Saunders et al., 2009). The main advantages of this method are that it gives a clearer picture and better understanding of the study. However, the disadvantages are that it is time consuming and is better to be used in conjunction with other instruments to get a wider picture of the research (Bryman, 2016). A detailed comparison of questionnaires and interviews will be given in Table 3.3.

Table 3.3: Questionnaires versus Interviews

Basis for comparison	Questionnaire	Interview
Cost	Economical	Expensive
Time	Informant's own time	Real time
Communication	One too many	One to one
Non-response	High	Low
Identity of respondent	Unknown	Known
Nature	Objective	Subjective
Meaning	Questionnaire implies a form consisting of a series of written or printed multiple choice questions, to be marked by the informants.	Interview is a formal conversation between the interviewer and respondent wherein the two participates in the question answer session.
Questions	Closed ended	Open ended
Form	Written	Oral
Information provided	Factual	Analytical
Order of questions	Cannot be changed, as they are written in an appropriate sequence.	Can be changed as per need and preference.

Source: (Surbhi, 2018)

Based on Table 3.3, questionnaires are written down while interviews involve conversations. Interviews allow for accurate screening, allow the researchers to capture emotions and behaviours via face-to-face contact, allow the researchers to get quick responses from interviews and enable the researchers to express their questions freely getting unlimited answers (Surbhi, 2018). On the contrary, questionnaires are more structured, there is no face to face contact, answers can be limited, but however can be time effective and reaches a broader audience (Surbhi, 2018).

3.10.1 Interview Guide

Questionnaires were not deemed necessary because the study is of a sensitive nature. The researcher opted to conduct interviews to cover the whole spectrum of workers at the university. Interviews refer to verbal communication between both parties and it can either be structured or unstructured (Saunders *et al.*, 2008). The researcher used face to face interviews. Direct interviews gave quick responses and better understanding. The interview guide was split into three sections namely Section A, Section B and Section C. The interview guide was designed to answer the research questions and was developed using concepts and underlying theories in Chapter 2.

Section A: Personal information and perceived ease of use of ICTs (included questions on the use of ICTs in the workplace and the perceived ease of use and respondents had to tick on different columns depending on their opinions). This section and the questions formulated were guided by the Technology Acceptance Model.

Section B: Assessment of gender diversity and equality (included questions on employee diversity and representation in the workplace in terms of promotion, recruitment and other workplace issues). This section and the questions formulated were guided was by the Equity Theory and Feminist Theory.

Section C: ICTs and gender equality (included questions on whether the respondents agreed or disagreed with answers that were given on the benefits of ICTs and the promotion of gender equality based on the research participants' point of view). This section and the questions formulated were guided by the Critical Information Systems Theory.

The interview guide was designed following the research questions satisfaction to have validity, reliability and consistency. Instruments should be designed to measure what they are supposed to measure. The questions on the questionnaire provided data regarding whether gender inequality exists at the selected institution and whether ICTs can be a useful tool in promoting gender equality. As mentioned before in Chapter 1, when conducting a study, the researcher has to show validity and reliability of the research methods (Bryman, 2004).

3.10.2 Validity

The research design of the case study was deemed necessary for this study due to the aforementioned reasons and the analysis of the results was done without bias and in-line with the ethical standards. The analysis of ICTs in promoting gender equality has been done before by writers such as Mahmudul, (2012); Sandys (2005). Relevant views of the findings of the role of ICTs to promote gender equality are presented to a greater extent in Chapter 4 and 5. The researcher used original data in the analysis of findings such as quotations from various respondents.

3.10.3 Reliability

The researcher transcribed all the data collected from the interviews from all the respondents to avoid leaving out important information relevant for the study. The researcher had intended to use a software for data transcription called NVIVO version 10 (computer software program) which is used for many qualitative studies because it consolidates large volumes of data and keeps track of all the notes; it analyses texts, images, audios and geo data and lastly it allows the researcher to annotate and code findings in primary data material (Comerford, 2012). However, the number of respondents was few, only 19 interviews conducted, so qualitative analysis was done using NVIVO and Microsoft Excel. Respondents were row headings and questions column headings see Appendix D. Sorting was done based on gender to establish if responses were associated with gender.

The researcher also generated themes using thematic analysis which was useful for this qualitative study and the researcher referred to external evidence to test the conclusions from the analysis of the role of ICTs to promote gender equality. The researcher also used another computer program SPSS to analyse data in Section A of the interview guide to see if there is any correlation between ICTs and gender equality.

3.10.4 Ways for reliability and validity testing

- Triangulation- The researcher gathered and analysed data from more than one source on literature and theories on the issue of gender equality and on the role of ICTs to promote gender equality.
- Researcher perspective- The researcher provided clear perspectives on the interview guide and the responses on how ICTs can be a powerful tool to promote gender equality for credibility purposes.

Respondent validation- The feedback from the respondents created important and relevant issues that the researcher considered. It is important for a researcher to do a member check to ensure transferability, validity and credibility of the research. During the interview, the researcher was able to build rapport with the respondents so that they could give honest and open responses. After the interviews the researcher also sent an email to respondents with the findings so that they could reflect on their responses. The researcher did this to ensure that the findings of the study would be authentic, reliable and original. Data collection was done in such a way that the information provided was holistic and answered the research questions to achieve the objectives of this study. The researcher focused on information that sought to shed light on whether gender inequality really existed at the selected academic institution or it was just a myth. Data collection was also concentrated on obtaining information on the use of ICTs to promote gender equality in the workplace. The next section will describe how data was collected for this study.

3.11 Data Collection and Fieldwork

Data was collected at a selected South African university. The researcher conducted the field work alone without the help of field assistants because this gave a better understanding of the study. The researcher observed the prevalence of gender inequality at the institution of study particularly. The researcher used case studies from previous research on the similar subject. The researcher conducted nineteen face to face interviews. According to Bryman (2012) it is not possible to really state the number of qualitative interviews that should be done so as to complete a project and to implement it. The process took time but saved money in travelling costs due to the fact that the researcher lives in South Africa close to the university. Data collection was done in such a way that the information provided was holistic and answered the research questions to achieve the objectives of the research. The

researcher focused on information that sought to shed light on whether gender inequality really existed at the selected institution or it did not.

Interview Process

1. The researcher invited respondents via email by attaching a respondent consent form with all the details of the research and how the interview would take place
2. The researcher also went door to door to invite respondents and giving them a consent form which they had to sign
3. After correspondence, the researcher set up dates and times with respondents for the interviews
4. On the interview day, the researcher arrived, gave an introduction and conducted the actual interview in the respondents' offices at the selected institution
5. The interviews were approximately 45 to 60 minutes long each

The next section will discuss the data analysis for this research.

3.12 Data Coding and Analysis

It is important to consider overall points of view and a perspective concerning which data is to be collected, how it will be collected and how it will be analysed (Collis & Hussey, 2009). Qualitative data refers to non-numeric information such as interview transcripts, notes, video, audio recordings, images, and text documents (Hussey & Hussey, 2015; Maxwell and Reybold, 2015; Moen and Middelthon, 2015). The researcher should use the information that was collected from interviews, document analysis, observations and questionnaires to evaluate the facts and findings of the study (Saunders *et al.*, 2009). After qualitative data is gathered, the data is then transcribed and grouped into themes through thematic analysis which will make it easy to evaluate (Bryman, 2012). The data is then coded where applicable, but interview information from open-ended questions is not easy to code and analyse and it is important for researchers to ensure that they analyse all the relevant data from all the respondents so that they can get a sufficient analysis (Cohen *et al.*, 2007). The researcher coded and analysed data obtaining information pertaining to the use of ICTs in promoting gender equality at the workplace. The researcher

developed themes and sub-categories based on the data that was collected for example, Theme 1- ICTs can , Sub-categories- technology innovation, awareness, perceived ease of use, availability; Theme 2- Gender and labour, Sub-categories- career advancement, decision making; Theme 3- Human resources, Sub-categories- recruitment criteria, promotion, remuneration; Theme 4- Gender equality, Sub-categories- awareness, extent, and measures. More information on data analysis will be outlined in Chapter 4 and 5.

3.12.1 Qualitative Data Evaluation and Transcription

It is important for researchers to analyse separately open ended questions that will be on the information from interviews (Bryman, 2012). There are different ways to evaluate qualitative data such as computer software packages and thematic analysis (Cohen *et al.*, 2007; Bryman, 2012). Some of the computer software packages are described below.

There are different computer software packages for data analysis namely:

- NUD*IST- (Non-Numerical Unstructured Data Indexing) is used for text transcripts from focus group survey data to a more complex theory and analysis (Comerford, 2012). This software does auto coding for the signified text data and uses command files to regulate an analysis process (Comerford, 2012).
- NVIVO- This software supports qualitative data and mixed methods of research (Comerford, 2012). It is designed to help organise, analyse and to find insights in unstructured or qualitative data such as interviews, open-ended responses, articles, and web content (Comerford, 2012).
- AtlasTi- It can be argued that this software is the most powerful qualitative analysis software today (Comerford, 2012). It allows the user to locate, code, and annotate findings in primary data material (Comerford, 2012). It is used to evaluate the importance of the findings and to visualise complex relations between them (Comerford, 2012). This software can be used in a lot of fields of study such as management, sociology, quality management, market research, criminology, economics, and educational sciences studies (Comerford, 2012). This software consolidates large volumes of documents and keeps track of all the notes and connotations, codes, and memos in all fields that require an analysis of primary material consisting of text, images,

audio, video, and geo data (Comerford, 2012). This software also provides analytical and visualisation tools to open new interpretive views on the materials (Comerford, 2012).

All the above-mentioned analytical software packages are useful and very important for qualitative research especially on the role of ICTs to promote gender equality at the workplace. However, the number of respondents was few, only 19 interviews conducted so qualitative analysis was done using NVIVO, a computer software package and Microsoft Excel. Respondents were row headings and questions column headings see Appendix D. Sorting was done based on gender to establish if responses were associated with gender. Data analysis procedures were chosen so as to obtain results pertaining to the study. Data analysis gave vital information in relation to whether ICTs can be a powerful tool to promote gender equality at the workplace. The following section will describe how data was coded and analysed.

3.12.2 Data Coding and Evaluation

First step

After collecting data, it is important to develop and apply codes to make it easier to analyse the data (Castleberry & Nolen, 2018). There are three types of coding namely open coding (organisation of raw data to try to make sense of it), axial coding (interconnecting and linking the categories of codes), and selective coding (formulating a story through connecting the categories) (Maxwell and Reybold, 2015). The researcher used open coding by repeatedly reading through the data and labelling chunks of data based on the meanings that emerged and establishing the properties of each code that was generated from NVIVO. Axial coding was then used to identify the connections and relationships among the open codes. The researcher then used selective coding to figure out the core variables that included all the data, by re-reading the transcripts and selectively coded the data and presented in a Microsoft Excel data set. Coding is done using folders, wallets, filing cabinets etc. to gather materials or similar themes. Manual methods are out-dated, labour intensive and time consuming that's why the researcher opted for the computer based software NVIVO which helped in transcribing and analysing responses on the interview questions on the role of ICTs in promoting gender equality at the workplace.

Second step

After coding, the next step will be to identify themes, patterns, and relationships between the findings (Moen & Middelthon, 2015). The researcher scanned primary data for word and phrases that were most commonly used by respondents in the interviews. The codes were presented in Microsoft Excel where the data set was constructed. Themes (ideas, patterns, topics) were then generated from combined codes and they were compared against the data set whilst reviewing them to establish any relationships and similarities. The researcher then compared the interview findings with those of the literature review, discussing the differences. The researcher also made discussions about the information that was not mentioned by the respondents which she felt was important. The researcher compared primary findings to the role of ICTs in promoting gender equality at the workplace from a different area by discussing the similarities and the differences.

Third step

After identifying themes and patterns the final step would be to summarise the data (Nowell *et al.*, 2017). The researcher linked the research findings to the research questions and objectives. The researcher used noteworthy quotations from the transcriptions so as to highlight the major themes within the findings and the possible contradictions. The researcher analysed the data without bias, taking the information from all the respondents and making use of direct quotes as they were based on the responses from the interviews on the role of ICTs to promote gender equality at the workplace. The next section will give more details about ethical considerations that were taken by the researcher when conducting the study.

3.13 Ethical Considerations

The researcher used the internationally recognised codes of conduct for educational research. Before beginning the study, the researcher acquired consent from the institution under study to conduct interviews. Data collected for this study was used for learning purposes only and will not be shared with other third parties unless the research participants gives the researcher consent to do so. The researcher took into consideration the ethical principles and made sure that the research participants fully understood the following.

3.13.1 Truthfulness

The researcher was truthful to research participants through accountability, responsibility and transparency. The researcher was honest, truthful, and sincere. The researcher made sure that participants understood the nature of the study on the role of ICTs in promoting gender equality at the workplace, respect them and built a good relationship with them by being honest in every step of the research until the results were disseminated.

Confidentiality and Anonymity

The researcher respected the fact that the research participants have to remain anonymous and information collected will be kept confidential. The researcher made sure that the research participants are not easily identified by anyone and that the information obtained from them was confidential and used for research purposes only. The data collected from the research (direct quotes) does not directly address participants by their real names but rather codes and pseudonyms. When making direct quotes the researcher used pseudonyms for example, according to Participant X, “.....”. The interviews were held individually and not as a group so only the researcher and respondent were present hence confidentiality and anonymity.

Autonomy

The researcher made sure that participants were able to make their own judgement and avoid misleading questions. The researcher was fair, free from bias, and treated all the participants fairly and gave them enough time to air out their views (May & Holmes, 2012). The researcher made sure that all the research participants agreed to take part in the research before conducting it. The researcher also made sure that all the participants knew the research purpose, objectives, limitations, methodology, how data will be analysed and presented ethical considerations and how any potential risk will be eliminated. The researcher documented in full an invitation for consent of the research participants and institution under study.

Beneficence

This research benefits men and women, the society and the organisation by using ICTs to promote gender equality. The researcher made sure that potential harm or risk was eliminated.

Non-maleficence

The researcher was aware that in every research or study that involves human participants it is never guaranteed that there is no harm or risk. The issue of gender

inequality is a sensitive issue and during this research the harm may not have been direct (physical), but could be indirect (emotional and psychological). The researcher made sure that the research instrument (interview guide) was free of bias and stereotype and avoided misleading questions see APPENDIX C. The researcher was prepared to support participants in cases of indirect harm. Whenever the researcher sensed emotions arising or participants feeling uncomfortable, the researcher tried to change the subject and move to the next question. The researcher also made male participants feel that this is not a feminist or activist research, but rather an educational one. The researcher respected the respondents and formulated questions that were not harmful or sensitive to them and the researcher kept the research questions as the main priority of the study.

Justice

The researcher made sure that the information that was collected was used for research and academic purposes only.

Data protection

Data collected from the research was stored in a safe and secure place which was not accessible to other members of the public. Information recorded in the interviews was not saved on a public computer or over the internet by the researcher. The information and data collected from the research especially from the recordings, was stored in a safe place for the research period only.

3.14 Chapter Summary

This chapter gave detailed information on the research methods used in this study in order to answer the research questions and why they were chosen. This chapter also gave detailed information on how data was collected, coded and analysed and the ethical codes of conduct that were used so as to meet the research objectives. The next chapter discusses the findings of the study and an evaluation in relation to the research aim.

CHAPTER 4

Data coding and analysis

4.1 Chapter Introduction

The previous chapter looked at the methods that were employed for the research and why they were chosen. This chapter will incorporate data coding and analysis in line with the research objectives. This chapter will justify the data analysis methods, how and why they were chosen. This chapter will also determine if there is a correlation between the data collected, how it answers the research questions, if research objectives were met and how this links with the secondary sources which is the literature review.

4.1.1 Research Objectives Re-Visited

The main aim of this study is to evaluate and analyse the role of ICTs in promoting gender equality at a selected higher educational institution. The study has to fulfil the research objectives listed below;

1. To investigate the extent of gender inequality in a selected higher education institution in South Africa based on the perceptions of a select number of university staff
2. To establish if a select number of the university staff members are aware of the fact that ICTs can be used as a tool to promote gender equality at the workplace.
3. To establish the extent to which ICTs are currently being used to promote gender equality at a selected higher education institution in South Africa.
4. To find ways in which ICTs can be utilised to promote gender equality in the workplace.

4.1.2 Research Sample

The sample of the research was drawn from one South African university as stated in Chapter 3. The sample comprised of 20 research participants of which the

researcher managed to interview 19 and the last respondent was not available. The researcher however had reached saturation from the data that was collected. Saturation is when a researcher conducts interviews and all concepts are repeated in the same way. This is when no information or themes are generated from the interviews according to (Trotter, 2012). The interview sample comprised of the university executive management, HODs, lecturers and management assistants and the researcher used purposive sampling.

4.2 Data Presentation and Analysis

Data will be presented separately, Section A (Perceived use of ICTs) will be presented in the form of frequency tables. A frequency table is a distribution table that summarises values and their frequencies (Dictionary, 2010). The researcher used the frequency tables for this section because it is a useful way to organise and analyse data. The Technology Acceptance Model (TAM) in Chapter 2 was used as a guide to analyse the data that was obtained from Section A of the interview guide. As discussed in Chapter 2, the TAM focuses on the adoption of ICTs based on a person's perceived use and perceived ease of use of ICTs (Holden & Karsh, 2010). From the perspective of TAM, for ICTs to be accepted, they must be useful and easy to use (Holden & Karsh, 2010). This helped the researcher to further evaluate the perceived usefulness of ICTs at institution X and how ICTs can be used to promote gender equality at the workplace. The Chi-square test was used to test for association between demographic variables and computer use and knowledge. The reason quantitative data was collected for personal information was to check if there is an association between demographic characteristics and computer use and knowledge.

4.2.1 Methods of Data Presentation

After the interviews were conducted, the data collected was gathered, coded and then analysed using SPSS Version 21 see Appendix D for the first section, Section A and the researcher then used NVIVO to transcribe and code data. Microsoft Excel was used to present the coded data set from which themes were generated to analyse data in Section B and C for Section B and C see Appendix F, with reasons given in Chapter 3. As stated in Chapter 3, the interview guide was formulated to answer all the research questions in –line with ethical principles. After the interviews,

the researcher separated the data according to sections and as mentioned above. Section A is presented in frequency tables. Section B and C is presented in table form and thematic analysis in order to answer the research questions. The next section will present an analysis of data from Section A of the interview guide.

4.3 Analysis of the data in Section A: Perceived use of ICTs

4.3.1 Biography and Demographics of Respondents

Demographic information was analysed quantitatively since 19 interviews were conducted and it was possible to establish association between gender and level of computer literacy.

Table 4.1: Response rate

Class	Targeted Number of Participants	Actual Number of Participants	Response Rate
Male	10	9	90%
Female	10	10	100%
Total	20	19	95%

Source: Author's Construction

Table 4.1 shows that the response rate was very high at 95%. A total of 19 interviews were conducted enabling the researcher to reach saturation point in terms of responses aimed at answering the research questions that were mentioned in Chapter 1. Only one male participant who had given consent to participate was not available for interviews due to work commitments. This did not affect the results as saturation point was reached and the final results show that there was no bias in responses according to gender. According to (Trotter, 2012), 19 interviews are sufficient for a researcher to reach saturation point where no new themes are generated.

Table 4.2: Personal Information

Attribute	Class	Frequency	% Frequency
Gender	Male	9	47.4
	Female	10	52.6
Age	30-39 years	1	5.3
	40-49 years	6	31.6
	50-59 years	11	57.9
	60 years and above	1	5.3
Highest Qualification	Master's Degree	6	31.6
	Doctorate	6	31.6
	Professor	7	36.8
Years at Institution	1-5 years	4	21.1
	6-10 years	10	52.6
	11-15 years	2	10.5
	16-20 years	3	15.8
	Above 20 years	0	0

Source: Author's Construction

4.3.2 Gender

The target number of interviewees was 20 constituting 10 male respondents and 10 female respondents. The researcher reached saturation point before 20 interviews were conducted. According to (Trotter, 2012) saturation is usually attained between 9 and 25 interviews. To avoid gender bias the researcher distributed consent forms until 10 males and 10 females had given consent to participate in the study. Table 4.2 shows that there were 10 female participants and 9 male participants. This slight difference did not affect the overall results as will be seen in responses aimed at answering the research questions. According to literature, men and women perceive and understand ICTs differently due to the digital divide (Trauth, Kvasny, & Greenhill, 2006) so the researcher interviewed both men and women to find out their different perspectives.

4.3.3 Age

Table 4.2 shows that 5.3% of the participants were in the age group 30-39 years, 31.6% in the age group 40-49 years, 57.9% in the age group 50-59 years and 5.3% in the group 60 years and above. It was important to target all age groups to make

sure there would be no bias responses due to age. For a person to advance and acquire top positions, they should have the necessary skills, education, experience and qualifications and this evolves over a period of time (Alves & Steiner, 2017).

4.3.4 Educational Qualifications

Table 4.2 shows that 31.6% of the respondents attained a Masters level of education, 31.65% Doctorate level and 36.8% are Professors. The respondents were highly educated and the information they provided can be relied on. As stated in Chapter 2, advancement is based on merit be it man or woman (Mahmudul, 2012). Women now hold executive positions as much as men these days because they are qualified to do so (Sandys, 2005).

4.3.5 Number of Years at the Institution

The researcher asked respondents to provide information on the number of years they had been working at the case study institution to check if the respondents had sufficient knowledge of the goings on at the said institution. 21.1% had been working at the institution from 1 to 5 years, 52.6% from 6 to 10 years, 10.5% from 11 to 15 years and 15.8% from 16 to 20 years. The majority of the respondents 78.9% had been at the institution long enough to give reliable information regarding gender equality at the case study organisation. Employee advancement is based on length of service (Alves & Steiner, 2017), but this is contrary to what (Heilman & Eagly, 2008) said when they stated that even though women were qualified with many years of working experience as much as men, gender inequality prevails because stereotypes are still alive and dominant.

4.3.6 Competency in Use of Computers

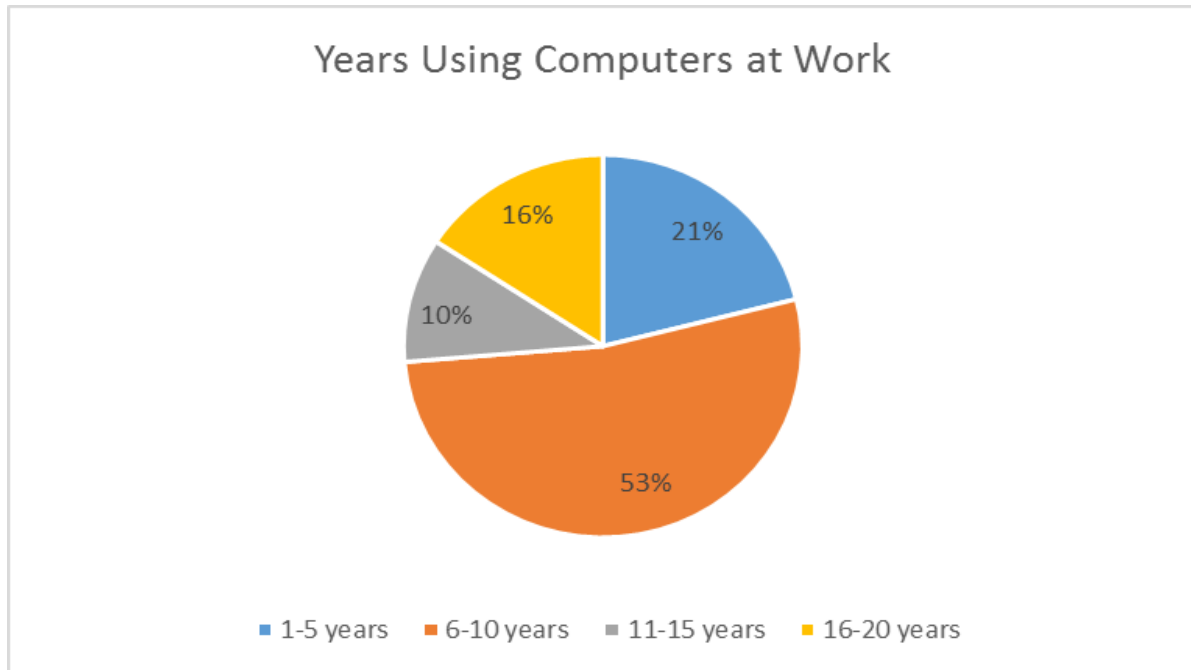
It was important to measure the respondents' competency in the use of computers to give an indication of whether ICTs can readily be used at the case study institution as a tool to promote gender equality. Furthermore, this section validates responses on how ICTs can be used to promote gender equality to answer the research question 5. Participants were asked the following questions:

- How many years have you used computers at your workplace?
- How would you describe yourself in respect to the various levels of computer usage?

- Have you received any form of computer training?
- Do the following affect your usage of computers at your workplace?
- How competent or knowledgeable are you to do the following?

4.3.7 Number of Years Using Computers at Work

Figure 4.1: Number of years using computers at work



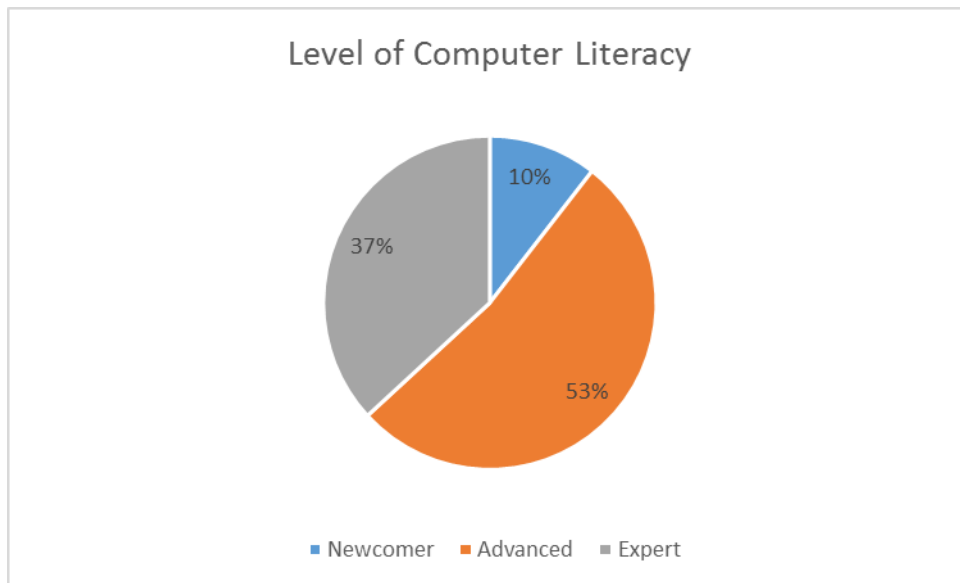
Source: Author's Construction

Figure 4.1 shows that 21% of the respondents used computers at work between 1 to 5 years, 53% between 6 to 10 years, 10% between 11 to 15 years and 16 % between 16 and 20 years. The majority of the respondents had several years' experience using computers at work implying that they were conversant with the use of computers and wouldn't have difficulty in using ICTs in promoting gender equality. Computer illiteracy is one barrier that prevents the adoption and use of ICTs. According to the Technology Acceptance Model in order for technology to be accepted, it must be useful and it must be easy to use (Holden & Karsh, 2010).

4.3.8 Level of Computer Literacy

To measure the level of computer literacy participants were asked the question, how would you describe yourself in respect to the various levels of computer usage? The responses are depicted in Figure 4.2 below.

Figure 4.2: Level of Computer Literacy



Source: Author's Construction

The results in Figure 4.2 show that 10% of respondents were newcomers to use of computers, 53% were at the advanced stage and 37% were experts. The majority of participants were very good in the use of computers. This implies that ICTs can readily be used at the case study institution as a tool to promote gender equality. Information provided by respondents on how ICTs can be used to promote gender equality is well informed.

4.3.9 Gender and Level of Computer Literacy

The researcher investigated further whether gender had a bearing on the levels of computer usage. It can be seen from Table 4.3 that there are more male experts than female experts in the ratio 6:1 even though a number of women at the institution are very good at computers. This can be attributed to the digital divide. According to Steeves & Kwami (2017) the more women are computer literate, the more they become empowered.

Table 4.3: Cross tabulation: Gender and computer usage

		How would you describe yourself in respect to the various levels of computer usage?			Total
		Newcomer	Advanced	Expert	
What is your gender?	Male	1	2	6	9
	Female	1	8	1	10
Total		2	10	7	19

Source: SPSS Output Appendix F

4.4 Barriers to Computer Use at Work

The researcher investigated whether the respondents faced barriers in the use of computers at work by asking the question, do the following affect your usage of computers at your workplace?

Table 4.4: Barriers to computer use at work

Barrier	Never	Rarely	Sometimes	Often
Not enough computers	84.2	15.8	0	0
Insufficient software licenses	89.5	10.5	0	0
Obsolete computer equipment	84.2	10.5	5.3	0
The network is frequently down	10.5	5.3	73.7	10.5
Vandalism of computer equipment	68.4	26.3	5.3	0
Poor Internet access	15.8	5.3	68.4	10.5
Limited work spaces	89.5	10.5	0	0

Source: Author's Construction

It can be seen from the results of Table 4.4 that that the majority of respondents 84.4% believe there are enough computers, 89.5% adequate work spaces and

89.5% believe there are adequate software licenses. The majority of respondents note network problems and access to the internet as major problems to computer usage at the case study institution. 73.7% said network is sometimes down and 60.4% noted poor internet access. A few respondents 5.3% noted obsolete computer equipment and vandalism as problems. This is supported in Chapter 2 by (Holden & Karsh, 2010) who said that ICTs' availability affect their perceived ease of use and their perceived usefulness.

4.4.1 Computer Training

On being asked whether they had received some computer training, all the respondents responded positively. It is important that both men and women are trained to use computers to bridge the digital divide, encouraging the use of ICTs to promote gender equality.

Table 4.5: Computer training

Have you received computer training?	Number of respondents	Percentage
Yes	19	100
No	0	0

Source: Author's Construction

4.4.2 Competency in Day to Day Computer Tasks

The researcher also investigated respondents' competency in day to day computer usage tasks.

Table 4.6: How competent or knowledgeable are you to do the following?

Task	1	2	3	4	5
Start and shut down the computer correctly	0	0	0	5.3	94.7
Swapping between applications	0	0	0	5.3	94.7
Retrieve files from stiffy disks, flash drives and cd-roms	0	0	0	5.3	94.7
Copy, delete and rename files	0	0	0	0	100
Understand how a word processor can be used	0	0	5.3	0	94.7
Use a word processor at work	0	0	5.3	0	94.7
Understand how graphics software can be used	0	5.3	26.3	26.3	42.1
Use a graphics package to prepare work materials	0	0	36.8	31.6	31.6
Understand how a spreadsheet can be used	0	0	5.3	5.3	89.5
Use a spreadsheet to prepare work materials	0	0	5.3	5.3	89.5
Understand how a database can be used	0	5.3		10.5	89.5
Use databases in lessons	0	5.3	21.1	26.3	42.1
Use content specific software at work	0	0	0	21.1	78.9
Understand how the World Wide Web (www) can be used	0	0	0	5.3	94.7
Use the World Wide Web to support your work	0	0	0	5.3	94.7
Understand how e-mail can be used	0	0	0	5.3	94.7
Participate in "real-time" discussions, e.g., in a chat room	0	0	10.5	21.1	68.4
Understand how to use a proxima	42.1	31.6	15.8	10.5	0

Source: Author's Construction

The results presented in Table 4.6 show that all the respondents (100%) can start and shut down the computer correctly, swap between applications, retrieve files from stiffy disks, flash drives and cd-roms, copy, delete and rename files, understand how a word processor can be used, use a word processor at work, use content specific software at work, understand how the World Wide Web (www) can be used, use the World Wide Web to support your work, and understand how e-mail can be used. A few respondents 5.3% did not understand how graphics software can be used, how a database can be used and use of databases in lessons. The majority of respondents 73.7% did not understand how to use Proxima. It can be seen that the majority of respondents are conversant with a lot of computer tasks which can be useful in acquiring skills and knowledge necessary for achieving gender equality in

institutions of higher learning (Berki & Tiainen, 2019). The next section will discuss the findings from Section B and C of the interview guide using thematic analysis generated from tables that were constructed from the Excel data sheet in Appendix D and the transcription of the interviews from the responses and data obtained, transcribed and coded.

4.5 Analysis of data in Section B: Assessment of gender diversity and equality.

Question 1: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer. This question was formulated to address research objective 1 which is to investigate the extent of gender inequality in a selected higher education institution in South Africa.

Table 4.7: Extent of gender inequality

Respondent	Gender	Answer	Brief Comment
1	Male	Yes	No discriminatory policy
2	Male	Yes	Recruitment is based on qualifications and experience. Women have a voice in South Africa
3	Female	Yes	Laws and employee rights. Employees are aware of their rights.
4	Female	Yes	Recruitment based on skill
5	Male	Yes	No discrimination at this institution
6	Female	No	Believes men are paid more
7	Female	Yes	No gender specific vacancies
8	Male	Yes	No gender specific vacancies
9	Female	Yes	Equal rights. Recruitment based on skill
10	Male	Yes	No discrimination. Women have a voice through feminists' views
11	Female	Yes	No discrimination. The best get the job based on skills
12	Male	Yes	Never encountered discrimination
13	Female	Yes	Labour laws and employee rights
14	Male	Yes	Eyes watching
15	Female	Yes	No restrictions for job applicants
16	Male	Yes	Employee rights
17	Male	Yes	-
18	Female	Yes	No discrimination or stereotypes
19	Female	Yes	Haven't been discriminated

Source: Author's own construction

The response categories that were generated on this question are as follows:

- Women are afforded equal opportunities
- Laws prevent discrimination
- People are recruited on merit
- Employees have and are aware of their rights
- There is no gender discrimination at Institution X

- There are no gender specific vacancies at institution X
- The world is watching
- *Men are paid more (Respondent 6)

In order to address research objective 1, the question, to the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer was asked. 18 out of 19 respondents were of the opinion that women are afforded equal opportunities at institution X. The reasons given were that there are laws in South Africa that prevent discrimination by gender. Employees are aware of their rights which make it difficult for discrimination to be prevalent. In addition, women now have a voice through feminist movements, democratic processes and social media platforms. This is supported by (Cummings & O'Neil, 2015) in their study. Respondent 10 had this to say:

“Yes, we all are. Based on my experience no one has been discriminated before here. People have a voice especially women due to this so called feminist movement.”

Seven respondents said they had never encountered discrimination at Institution X with some pointing out that everyone was free to apply for a position. The first respondent said there was no discriminatory policy and this was supported by the 7th and 8th respondents who noted that there were no gender specific vacancies at the institution. Out of the ten women interviewed 9 felt that there was no discrimination at the institution under study but respondent 6 expressed that she felt there was a gender pay gap and had this to say:

“No. The pure fact that I was fully aware that there are differences in remuneration. Male counterparts get more pay there is this thing called the “boys club” in organisations.”

This can be supported by (Heilman & Eagly, 2008) who said that pay gaps exist and women often receive less pay than men at the same level restricting their chances of advancement.

Basing on the results above the researcher can conclude that there is no gender inequality at Institution X as the majority of the respondents 90% said there is no

gender discrimination or inequality. This is contrary to (Gregory, 2003; Dipboye & Colella, 2005; Heilman & Eagly, 2008; Lorber, 2010) who said that gender inequality is still rife at the workplace. Due to the pressure organisations, laws and awareness of employee rights, gender inequality is absent in some higher education institutions.

Question 2: Do you believe you deserve a promotion?

This question was formulated to address research objective 1 which is to investigate the extent of gender inequality in a selected higher education institution in South Africa based on the perceptions of a select number of university staff . The researcher analysed responses to check if there was variance in responses given by men versus those given by women.

Table 4.8: Promotion

Respondent	Gender	Answer	Brief Comment
1	Male	Yes	-
2	Male	Yes	-
3	Female	Yes	-
4	Female	Yes	-
5	Male	Yes	Already promoted
6	Female	Yes	Works hard
7	Female	Yes	-
8	Male	Yes	-
9	Female	Yes	-
10	Male	Yes	-
11	Female	Yes	Hasn't applied for executive management position
12	Male	No	Has other research commitments
13	Female	Yes	Keeps advancing and getting more educated
14	Male	Yes	-
15	Female	Yes	Never applied for other positions
16	Male	Yes	-
17	Male	Yes	-
18	Female	No	Not yet at that level of advancement
19	Female	No	Retiring soon

Source: Author's own construction

The response categories that were generated on this question are as follows:

- Deserves promotion
- Does not deserve a promotion
- Preparing to get promoted
- Not applying for top positions

Out of the 19 respondents, 3 respondents said they don't deserve a promotion and 16 said that they deserve a promotion. There is no major variation in responses according to gender implying there is no discrepancy at the case study institution in terms of promotion according to gender. Out of the three respondents that said no, one male respondent said that he has other research commitments and the other two female respondents one said that she is retiring soon and the other respondent (respondent 18) had this to say:

"No, I am not at that level yet, but maybe in the future"

As stated in Chapter 2, women used to struggle with confidence due to the fact that they always believed that they were inferior to men until recently (Ahmed *et al.*, 2006). This is gradually changing due to ICTs which is enabling women to gain more confidence especially on social media platforms. ICTs have led to cognitive change and material change. According to Mahmudul (2012) most of the women fail to advance because they think they are not good enough. Some women lack the confidence that they can acquire top positions as men and this thought is always escalated by the gender glass ceiling (Mahmudul, 2012). However, it is not sufficient to say that most of the women still feel that way, because at Institution X, 8 other respondents felt that they deserved a promotion. Respondent 13 felt that she deserved a promotion due to the effort that she always puts. She had this to say,

"Yes that's why I keep advancing myself, getting more educated while I am building my working experience."

This is supported in Chapter 2 by (Ahmed *et al.*, 2006) who said that promotion and advancement is based on merit and women these days now hold executive positions at the workplace because they are working hard for it.

Question 3: Do you use ICTs for: receiving or disseminating employee rights information, training and development, job tasks, communication, working from home, complaining about work conditions, exposing unfair practices in the workplace, reporting abuse at work, and sharing of job related information?

This question was designed to address research objective 2 which is to establish if a select number of university staff members are aware of the fact that ICTs can be used as a tool to promote gender equality at the workplace. It was also formulated to address research objective 3 which is to establish the extent to which ICTs are currently being used to promote gender equality at a selected higher education institution in South Africa.

Table 4.9: Use of ICTs

Respo ndent	Gen der	Do you use ICTs for?								
		Receivin g or dissemin ating employe e rights informati on	Traini ng and devel opme nt	Jo b tas ks	Com munic ation	Wor king from home	Comp lainin g about work condit ions	Exposi ng unfair practice s at work	Reporti ng abuse at work	Sharin g of job related informati on
1	Male	Yes	Yes	yes	yes	yes	Yes	No	No	Yes
2	Male	Yes	Yes	yes	yes	yes	Yes	No	no, never been abused	Yes
3	Fem ale	Yes	Yes	yes	yes	yes	Yes	Yes	Yes	Yes
4	Fem ale	Yes	Yes	yes	yes	yes	Yes	No	No	Yes
5	Male	Yes	Yes	yes	yes	yes	Yes	Yes	Yes	Yes
6	Fem ale	Yes	Yes	yes	yes	yes	Yes	No	No	Yes
7	Fem ale	Yes	Yes	yes	yes	yes	No	No	No	Yes
8	Male	Yes	Yes	yes	yes	yes	Some times	No	Would rather do that in person	Yes
9	Fem ale	Yes	Yes	yes	yes	yes	Some times	Yes	Yes	Yes
10	Male	Yes	Yes	yes	yes	yes	Yes	Yes	No, would do that in person	Yes
11	Fem ale	Yes	Yes	yes	yes	yes	Yes	Yes	No	Yes
12	Male	Yes	Yes	yes	yes	yes	No	No	No	Yes
13	Fem ale	Yes	Yes	yes	yes	yes	Yes	No	No, never	Yes
14	Male	Yes	Yes	yes	yes	yes	Yes	Yes	No, in person	Yes
15	Fem ale	Yes	Yes	yes	yes	yes	Yes	Yes	Yes	Yes
16	Male	Yes	Yes	yes	yes	yes	Yes	Yes	Yes	Yes
17	Male	Yes	Yes	yes	yes	yes	No	No	No	Yes
18	Fem ale	Yes	Yes	yes	yes	yes	Yes	No	No	Yes
19	Fem ale	Yes	Yes	yes	yes	yes	rarely	Word of mouth	No	Yes

Source: Author's own construction

The response categories being generated from this table are as follows

- Using ICTs to share employee rights information
- Using ICTs for training and development
- Using ICTs for job tasks
- Using ICTs to communicate
- Using ICTs to work from home
- Using ICTs to complain about work conditions
- Using ICTs to report abuse at work
- Using word of mouth to report abuse at work
- Using word of mouth to complain about work conditions
- Using word of mouth to expose unfair practices at work
- Using ICTs to expose unfair practices at work
- Using ICTs to share job-related information

Based on the results from the Table 4.9, 19 out of 19 respondents said that they use ICTs to disseminate and receive employee rights information. This shows that ICTs can be a powerful tool in promoting gender equality because by sharing information, a lot of people can be made aware of their rights as a result. This can be supported by literature in Chapter 2 by Loiseau & Nowacka (2015) who said that social media is seen as a powerful driver by advocating for women's rights and gender issues to the wider public's attention and advocating for gender equality.

All the 19 respondents said that they use ICTs for training and development. This can enable women to discover, share and spread information with the potential for women empowerment via capacity-building, employment and skill development as stated by (Mahmudul, 2012).

On the question of job tasks all 19 respondents said that they use ICTs for job tasks at Institution X, all 19 of them said that they use ICTs for communication and for working from home. Respondent B said,

“Yes I use the Internet for communication with my students, colleagues, basically everyone. I check my emails often and this is very helpful, it makes communication very easy even when I am out of town.”

This is supported by Trauth, Kvasny & Greenhill (2006) who said that ICTs enable people to communicate easily and it enhances flexibility at the workplace.

Out of the 19 respondents that were asked if they use ICTs to complain about working conditions, 13 said yes, 3 said no, 2 said they do that sometimes and 1 respondent said they rarely do that. Out of the respondents that said yes, 1 respondent said,

“Yes, I do, I am very active when it comes to grievances.”

This shows that ICTs can be a powerful tool to promote gender equality at the workplace and this is supported by Trauth, Kvasny & Greenhill (2006) in Chapter 2 who stated that among the benefits of ICTs are information sharing and communication at the workplace. From the respondents who said no, noone gave reasons why they don't complain about work conditions through ICTs.

All the 19 respondents were also asked if they use ICTs to expose unfair practices at work, 11 said no they don't and 8 said that they do. Out of the 11 respondents that said no, 5 were male and 6 were female. Out of the respondents that said yes 4 were men and 4 were female. From the respondents that said no, respondent 19 said that,

“No I don't I try to expose unfair practices by word of mouth.”

This may be due to the fact that they prefer doing it in person, expressing themselves and showing their emotions as well as getting instant responses. One disadvantage of ICTs is that you might not get an instant response as compared to face to face communication (Trauth, Kvasny, & Greenhill, 2006).

The 19 respondents were asked if they use ICTs to report abuse at work, 5 said yes they do and 14 said no they don't. Among the respondents that said no, 7 were male

and 7 were female. Out of the respondents that said yes, 3 were female and 1 was male. From the respondents that said no, respondent 2 had this to say,

“No I have never been abused at work and I don’t know if any employee has been through that yet.”

This was the same with what respondent 13 said as well. The other 3 respondents said that they would rather do that in person. As stated before, other respondents prefer to address sensitive issues directly in order to get instant responses to show their emotions or to express themselves.

All the 19 respondents were also asked if they use ICTs to share job-related information and all 19 of them said yes. This shows that at institution X they mainly use ICTs for job related tasks as compared to other sensitive issues such as reporting abuse at work and exposing unfair practices. As stated in Chapter 2, ICTs enables information sharing, flexibility, and efficiency at the workplace (Trauth, Kvasny & Greenhill, 2006).

From the discussion above it was established that university staff members are aware of the fact that ICTs can be used as a tool to promote gender equality at the workplace. It was also established that ICTs are currently being used to promote gender equality at the selected higher education institution in South Africa.

Question 4: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer. This question was designed to address research objective 1 which is to investigate the extent of gender inequality in a selected higher education institution in South Africa based on the perceptions of a select number of university staff.

Table 4.10: Employee representation

Respondent	Gender	Answer	Brief Comment
1	Male	Yes	DVC and most deans are women
2	Male	Yes	Ratio of positions of men and women almost equal
3	Female	Yes	Chancellor and DVC are women
4	Female	Neutral	Men and women given equal opportunities
5	Male	Yes	Women are now dominating
6	Female	Yes	Fair representation in teaching positions
7	Female	Yes	Chancellor and DVC are women
8	Male	Yes	Most women are in management
9	Female	Yes	Most women are in management
10	Male	Yes	DVC and chancellor are women
11	Female	Yes	But have not reached an equilibrium yet between men and women
12	Male	Yes	DVC and most of the deans are women
13	Female	Yes	Representation between men and women is not 50-50 yet
14	Male	Yes	Most women are in management
15	Female	No	Men are still dominant
16	Male	Yes	Women are fairly represented
17	Male	Yes	-
18	Female	Yes	-
19	Female	Neutral	We have a couple of women with top positions

Source: Author's own construction

The response categories generated from this table are:

- Women are fairly represented
- Women are dominating

- Women are in management
- Men are still dominant
- Representation between men and women is not yet equal
- Most of the university executive management at Institution X are women (DVC, Chancellor, most of the deans)

Out of all the 19 respondents that were interviewed; 2 said that they were neutral; they could not say yes or no, only 1 said no and 16 said yes women were fairly represented in top positions. Respondent 19 said,

“I can only talk about our faculty; I don’t know if it’s because women don’t apply for these top positions or not. It could be for a number of reasons. There are a lot of research positions and there are choices, so as a woman I would rather do what I love. We do have a couple of females with top positions though.”

The respondent was not sure if women were not fairly represented yet because they didn’t apply for the positions or there were other factors. As mentioned before in Chapter 2, most women fail to attain top positions because they believe they are inferior to men, but others fail to do so because of family responsibility and other commitments (Lorber, 2010).

One respondent, who is a woman, said that women are not fairly represented at Institution X because she felt that men were still dominant. She had this to say,

“Even though women are breaking through and obtaining top positions, I feel like men are still dominant. Here the DVC and chancellor are women, in other positions I feel like men are still dominant.”

This is supported by Meyerson & Fletcher (2000) who said that even though the number of women who are attaining top positions is increasing, women who actually hold these positions are few as compared to the men who are equally qualified.

Respondent 7 and ten other respondents said that the chancellor, most of the deans and the DVC at Institution X are women. This shows that women are in leadership and they hold executive positions at this institution. Mahmudul (2012) stated that

women in the 21st century are breaking through barriers and acquiring top positions. A male respondent, respondent 5 said that women are now dominating. He said,

“Yes, I think females are dominating the world these days because if you look at this institution, I think more women hold executive positions because the chancellor and the deputy vice chancellor of research are women. Most of the deans are women and I think lecturers are equally represented in departments as well.”

Friedan (2018) believes that women are fighting for their social status globally and are managing to break through social barriers, attaining top positions that were previously held by men.

Question 5: In your opinion what factors can influence gender inequality at this institution?

Table 4.11: Factors influencing gender inequality

Respondent	Gender	Brief comment
1	Male	Education, qualifications, experience
2	Male	Training and development, employee rights, employment law, qualifications, education
3	Female	Employee rights, labour law, female empowerment, education, technology, trends, feminist movements, social media activists
4	Female	Fair practices, South African law, feminists, eyes watching
5	Male	Laws, level of education, personal goals and objectives, family responsibilities
6	Female	Balancing out positions
7	Female	Education and experience
8	Male	Low levels of education cause inequality
9	Female	Qualifications, goals, education, culture
10	Male	Perceptual bias, stereotype
11	Female	Fear of the unknown
12	Male	Education, qualifications, experience, law, personal behaviour and attitude towards others
13	Female	Education, personal goals and objectives
14	Male	Education, length of service, perception, workplace engagement
15	Female	Qualifications
16	Male	Education, qualifications, experience
17	Male	Culture, norm, qualifications, achievements
18	Female	Stereotyping, perceptual bias
19	Female	Systems and protocols

Source: Author's own construction

The response categories coming out from the analysis are:

- Education, qualifications, experience, achievements
- Personal goals and objectives
- Culture and norm
- Perceptual bias and stereotype, behaviour and attitude towards others
- Length of service, workplace engagement
- Systems and protocols, the law
- Feminists. Trends, technology, social media activists
- Family responsibility

Out of the 19 respondents that were asked about factors that influence gender equality at Institution X, 13 of them talked about education, qualifications and experience. Respondent 9 said that,

“Qualifications, goals, education. Culture used to be the culprit, but hey things have changed drastically so that is no longer the case.”

This is supported by respondent 17, who said,

“Culture and norm, education, qualifications, individual’s desired achievements, the list is endless. If you want to win a race, you have to train, work hard, put in a lot of effort then compete and run as fast as you can. Same applies to employee advancement.”

This shows that employee advancement is based on merit, achievements, personal objectives, length of service and workplace engagement. It can be argued that men used to advance more than women because they had these attributes but that is no longer the case (Berki & Tiainen, 2019).

Respondent 11 stated that a major factor influencing gender inequality is family responsibility and fear of the unknown when she said,

“Fear of the unknown, other women still feel some type of way, they are not yet ready to take up bigger demanding roles, maybe due to family responsibility and other things. Men build their careers and continue with their studies because they have limited drawbacks as compared to women who have to cater for their families. I missed out on some opportunities when I was pregnant, I could not travel often when I was doing my research. This was a drawback for me and even when the baby was born, I remember taking a lot of sick leave from work whenever the baby fell ill and whenever I took the baby for immunisations.”

This shows that even though things are changing and women are advancing, equality has not been reached yet because women still have barriers as stated in Chapter 2 by Dipboye & Colella (2005).

Respondent 4 argued that at Institution X, employees are protected by the law, their rights, fair practices, feminists and eyes watching,

“Fair practices at the institution and the South African law. I think generally these days, people are too cautious about gender issues especially feminists and this has become a very sensitive topic so most of the organisations are trying to be equitable because they can’t afford to tarnish their image. There were cases of inequality that were reported at some universities and this was all over the media, it was not a good image so most of the universities are trying by all means to follow regulations to avoid such cases, as this can destroy reputation in a second because of media outcry. These days you don’t know who is recording you, it’s like technology is watching you everywhere things go viral in a second.”

This is supported by Sandys (2005) who stated that women are getting empowered due to the feminist movements and the advances in technology.

Respondent 10 and 18 said that perceptual bias and stereotype influence gender inequality. This is supported in Chapter 2 by Ryan & Haslam (2005) who said that there is a gender glass ceiling that inhibits women from advancing and creating a barrier to advancement that is influenced by perceptual bias and stereotype for women. On the contrary, some people believe that the glass ceiling is just an imagination and that some women fail to advance due to lack of requisite skills, competences and family responsibility that comes into the middle of their career development (Rai & Srivastava, 2008).

It can be seen that factors influencing gender equality are: education, qualifications, experience, achievements, personal goals and objectives, culture and norm, perceptual bias and stereotype, behaviour and attitude towards others, length of

service, workplace engagement, systems and protocols, the law, feminists and trends, technology, social media activists and family responsibility.

4.5.6 Question 6: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through: The availability of gender sensitive skills, the satisfaction of gender sensitive customers, moderating of tempers in the workplace, and increasing transparency in the workplace.

Table 4.12: Gender equality and organisational performance

Respondent	Gender	Gender diversity can improve organisational performance through			
		Availability of gender sensitive skills	Gender sensitive customer satisfaction	Temper moderation in the workplace	Increased transparency in the workplace
1	Male	Yes	No	Yes	Yes
2	Male	Yes	Yes	Yes	Yes
3	Female	Yes	No	Yes	Yes
4	Female	Yes	Yes	Yes	Yes
5	Male	Yes	Yes	Yes	Yes
6	Female	Yes	Yes	Yes	Not sure
7	Female	Yes	Yes	Yes	Yes
8	Male	Yes	Yes	Yes	Yes
9	Female	Yes	Yes	Yes	Yes
10	Male	Yes	Yes	Yes	Yes
11	Female	Yes	Yes	Yes	Yes
12	Male	No	Yes	Yes	Yes
13	Female	Yes	Yes	Yes	Yes
14	Male	Yes	Yes	Yes	Not sure
15	Female	Yes	Yes	Yes	Not sure
16	Male	Yes	Yes	Yes	Yes
17	Male	Yes	Yes	Yes	Yes
18	Female	Yes	Yes	Yes	Yes
19	Female	Yes	No	No	No

Source: Author's own construction

Response categories generated from this analysis are:

- Gender diversity can improve performance through availability of gender sensitive skills
- Gender diversity cannot improve performance through availability of gender sensitive skills

- Gender diversity can improve performance through satisfaction of gender sensitive customers
- Gender diversity cannot improve performance through satisfaction of gender sensitive customers
- Gender diversity can improve performance through moderation of workplace tempers
- Gender diversity cannot improve performance through moderation of workplace tempers
- Gender diversity can improve performance through increased transparency in the workplace
- Gender diversity can improve performance through increased transparency in the workplace

Out of the 19 respondents that were asked if gender diversity can improve performance through availability of gender sensitive skills, 18 of them agreed and one respondent disagreed. Out of the respondents that agreed, respondent 19, a woman had this to say,

“I agree also I have picked up in the classroom that if I put my students in groups, I usually notice that it’s a female who will be busy writing up notes and the males just sitting there. I ask my students, “is she your secretary?” Where I used to teach, when I travelled I was the only lady and I noticed all the guys always asked if they could use my report then I would say NO! There is no lady’s job, you should train your thinking as a person and it starts at home. You should teach your children that both men and women are equal. Of course a man must provide, but that is not the reality anymore. We have to do everything. What if your husband dies and you are not educated or you can’t look after yourself? I have trained my daughters to be independent.”

This is supported by Cummings & O’Neil (2015) who said that women now have a voice, they are getting educated, and filling in the gaps in employment which is enhancing organisational performance. Respondent 12, a man who disagreed said,

“But here most if not all administrative assistants are women.”

This is also supported by the view that there are jobs that are meant for men and others meant for women. Gender creates a natural expression of the difference

between boys and girls due to their differences in their nature (Allard, Haas & Hwang, 2011) and society shapes or nurtures this difference between boys and girls leading to gender stereotype.

Out of the 19 respondents that were asked if gender diversity can improve organisational performance through the satisfaction of gender sensitive skills, 16 agreed and 3 disagreed. Out of the 16 respondents that agreed, 8 were men and 8 were female. It can be argued that if there is no gender discrimination, people will be satisfied and feelings of segregation can be abolished through recruitment in gender-neutral countries (Berki & Tiainen, 2019). Out of the respondents who said no, respondent 3 said that,

"I can't say most of the people are bothered by gender sensitive skills anymore."

This is supported by the fact that these days, any person can take up any kind of job be it male or female (Gregory, 2003).

When the respondents were asked if gender diversity can improve organisational performance by moderating tempers at the workplace, 18 agreed and one disagreed. It can be argued that if gender equality exists at the workplace, tempers will be moderated because everyone will have a say and will also make decisions moving away from masculinity or feminist rule but rather a balanced one (Sandys, 2005).

The respondents were also asked if gender diversity can improve organisational performance through increased transparency in the workplace, 15 agreed, 3 said that they were not sure and 1 disagreed. Out of the 15 respondents that agreed, 8 were men and 7 were women. Mahmudul (2012) argued that if there is gender equality, there will be a lack of hidden agendas, collective decision making, collaboration, cooperation and information will be shared freely. Respondent 19, a woman disagreed and said,

"Transparency is a problem because as academics we don't really talk about our problems unless this culture is promoted in the department. In some departments processes or procedures are not transparent and staff hear about decisions taken only later. This is problematic especially in departments where the lack of transparency leads to perceptions that there is favouritism or that HODs have

different sets of rules for different people.”

This was supported by respondent 6 who is also a woman. Respondent 6 had this to say:

“I am not sure because you can have a balance of people who are unethical, so transparency solely depends on the individual’s morals.”

This is supported by Heilman & Eagly (2008) who said that gender stereotyping is still prevalent in a way that other people are not involved in decision making and there is lack of collaboration in the workplace.

Drawing from the above discussion gender equality enhances organisational performance. It is important to promote gender equality in organisations including institutions of higher learning. The next section gives a detailed analysis of the data that was collected from Section C to see if there was a correlation between ICTs and gender equality.

4.6 Analysis of data in Section C: ICTs and gender equality

4.6.1 Question 7: Please comment on each of the following indicating whether you agree or disagree that: ICTs can increase flexibility at work reducing male and female absenteeism, ICTs can enhance men and women’s knowledge and skills through training and development increasing their job competency, ICTs can reduce workloads enhancing men and women’s job satisfaction, ICTs can increase flexibility reducing male and female employee turnover, ICTs can increase awareness of both men and women employee rights, ICTs can give men and women a voice through anonymous and confidential communication, ICTs can expose unfair practices against men and women in the workplace.

This question was formulated to address research objective 4 which is to find ways in which ICTs can be utilised to promote gender equality in the workplace.

Table 4.13: ICTs and gender equality

Respondent	Gender	Do you agree that ICTs can?						
		Increase flexibility and reduce workplace absenteeism	Enhance knowledge and skills through training and development	Reduce workloads enhancing job satisfaction	Increase flexibility reducing employee turnover	Increase awareness of employee rights	Give people a voice through confidential communication	Expose unfair practices at work
1	Male	Yes	Yes	yes	yes	yes	Yes	yes
2	Male	Yes	Yes	yes	yes	no	Yes	yes
3	Female	Yes	Yes	yes	yes	yes	Yes	Yes
4	Female	Yes	Yes	yes	yes	yes	Yes	yes
5	Male	Yes	Yes	yes	yes	yes	Yes	Yes
6	Female	Yes	Yes	no	yes	yes	Yes	yes
7	Female	Yes	Yes	yes	yes	yes	yes	yes
8	Male	Yes	Yes	yes	yes	yes	Yes	yes
9	Female	Yes	Yes	yes	yes	yes	Yes	Yes
10	Male	Yes	Yes	yes	yes	yes	Yes	Yes
11	Female	Yes	Yes	yes	yes	yes	Yes	No
12	Male	Yes	Yes	yes	yes	yes	yes	No
13	Female	Yes	Yes	yes	yes	yes	Yes	Yes
14	Male	Yes	Yes	yes	yes	yes	Yes	Yes
15	Female	Yes	Yes	yes	yes	yes	Yes	Yes
16	Male	Yes	Yes	yes	yes	yes	Yes	Yes
17	Male	Yes	Yes	yes	yes	yes	Yes	yes
18	Female	Yes	Yes	yes	yes	yes	Yes	yes
19	Female	Yes	Yes	yes	yes	yes	yes	yes

Source: Author's own construction

Response categories generated from this analysis are:

- ICTs can give employees a voice through confidential communication
- ICTs can increase awareness of employee rights
- ICTs can expose unfair practices
- ICTs can increase flexibility in the workplace
- ICTs can enhance job satisfaction
- ICTs can reduce employee turnover
- ICTs can enhance knowledge and skills
- ICTs do not increase flexibility in the workplace
- ICTs do not increase awareness of employee rights
- ICTs do not expose unfair practices

All 19 respondents agreed that ICTs can enhance employee knowledge and skills through training and development, increase flexibility and reducing absenteeism, reduce employee turnover and gives both men and women a voice. This is supported by Cummings & O'Neil (2015) who concluded that ICTs have the potential to develop knowledge and skills of women in the society and in the workplace; enhance the technical expertise and competence of women through education and awareness; enable women to gain technological empowerment; allow women all over the world to share information which can enhance their position in the society and in their households thereby eliminating gender bias and increase the awareness of women on the national and global issues thereby promoting gender equality.

On the other hand, ICTs can have negative effects at the workplace. One respondent out of all the other 18 respondents, respondent 6 who is a woman had this to say,

“No. I feel like ICTs increase the workload because you will have to work at home. You can access your files from any device anywhere; you become a workaholic and lose work/life balance. ICTs are addictive they destroy a social life, especially social media platforms. I have to be on my phone all the time. The Internet is addictive and this has a lot of negative effects!”

This is supported by Trauth, Kvasny & Greenhill (2006) who reported that a digital divide is still prevalent between men and women despite the efforts to close the gap and the number of men using ICTs is higher than that of women. When respondents were asked if ICTs can increase awareness of men and women’s employee rights, one respondent out of all the other 18 respondents, respondent 1 said,

“I don’t think so; I think this is not applicable.”

This meant that this respondent did not see any correlation between ICTs and awareness of employee rights but it is insufficient to make a conclusion based on what only one respondent said as opposed to the other 18. The respondents were also asked if ICTs can expose unfair practices against men and women at the workplace, 17 respondents agreed and 2 respondents disagreed. Respondent 11, who is a woman said,

"I feel like people are now abusing this issue of gender equality on the Internet. They are doing too much and this is leading to cyber bullying. I saw a documentary of a woman who hung herself, she blogged about being raped and abused at work. She got support from other people, but she received a lot of backlash. She felt ashamed even to face her family and she hung herself. It was sad. You have to be ready to get criticised and shamed before you post anything on the Internet no matter how genuine it is."

Respondent 12, who is a man supported this by saying,

"I feel like men are being undermined on the Internet, any small thing we do is considered offensive. I can't even pat my female colleague on the back, but if she does it there is no problem. Women are taking over especially feminists and social media activists. I laughed the other day I watched a social experiment on YouTube. When people walked past and saw a guy harassing a woman, they all stopped and intervened, but when they saw the woman harassing the guy, they all walked past. It's so sad how the Internet is shaping people's way of thinking, it's accelerating situations. Sometimes I feel like the Internet is making people biased. How many people have committed suicide because of cyber bullying?"

This is supported in Chapter 2 by Shirky (2011) who reported that a primary way that media distorts reality is the under-representation of women as compared to men. Media's images of women also reflect cultural stereotypes which creates an unrealistic view of women (Shirky, 2011). The use of the male voice over on the media strengthens the cultural view that men have authority over women (Shirky, 2011).

However, considering the fact that most of the respondents agreed to the question in Section C above as shown, it is evident from the results that ICTs can promote gender equality.

4.7 Chapter Summary

This section brings this chapter to a conclusion. It can be seen from the results that there is gender equality at the case study organisation. It can also be seen that staff members are aware that ICTs can be used to promote gender equality. Whilst ICTs are being used for job tasks and training and development the majority of respondents do not use them to report abuse at work as they prefer to take the buffalo by its horns. The results also show that gender equality enhances organisational performance and that ICTs can be used to promote gender equality in

the workplace. It was seen that several factors affect gender equality in the workplace namely: Education, qualifications, experience, achievements, personal goals and objectives, culture and norm, perceptual bias and stereotype, behaviour and attitude towards others, length of service, workplace engagement, systems and protocols, the law, feminists and trends, technology, social media activists, and family responsibility. This chapter precedes the next chapter which gives the conclusions and recommendations of the study.

CHAPTER 5

Conclusions and recommendations

5.1 Chapter introduction

This chapter gives conclusions and recommendations based on the data analysis that was carried out in the previous chapter and the summary of the research. The researcher's conclusions and overviews in-line with the secondary literature from Chapter 2 were discussed in Chapter 4 on the analysis and findings of the study. This chapter gives an evaluation of the study in correspondence with the research aims, objectives and research questions to see if they were met. This chapter will also discuss the theoretical contributions, practical significance, benefits and limitations of the study as mentioned before in Chapter 1. This chapter will address the need for further research and justify why that is the case in relation to the role of ICTs in promoting gender equality at the workplace.

5.2 Summary of the research

As stated before in Chapter 1, the summary of the thesis is as follows:

5.2.1 Chapter 1: Introduction

The first chapter was an introduction of the study. It gave the study background and outlined the research objectives and research questions. This chapter also discussed the significance of the study and gave a summary of ethical considerations and scope of the research and an outline of the entire thesis.

5.2.2 Chapter 2: Literature Review

The second chapter was a detailed review of literature which revealed gaps in knowledge. Empirical studies in this chapter informed the construction and adoption of the research instruments used for data collection. The chapter also looked at under-pinning theories to support the research. All in all, this entire chapter gave justification for this study.

5.2.3 Chapter 3: Methodology

The third chapter gave a detailed outline of the research methodology. It discussed the target population, in this case University X employees and the study sample consisting of nine men and ten women. It presented the research design which was composed of sampling methods, data collection and data analysis methods and justification of the methods used.

5.2.4 Chapter 4: Data Presentation and Analysis

This chapter presented the findings of the study; it was a collection of data presentation, data analysis and interpretation of study findings. It preceded chapter 5 which presents conclusions and recommendations.

5.2.5 Chapter 5 Conclusions and Recommendations

This chapter gives the conclusions of the research findings stating whether the objectives of the study were met and recommendations based on the research conducted. The chapter outlines the implications of the study to policy makers and practitioners and recommended areas of further study emanating from the findings.

5.3 Evaluation of the study

An evaluation of the study was carried out using the research aims, objectives and questions using the findings from Chapter 4 to see if they were met. The aim was formulated from the research problem and the research objectives and questions were formulated from the aim or purpose of the study as mentioned in Chapter 1.

5.3.1 Research aim

The aim of the study was to explore how ICTs can be used to promote gender equality in the workplace. In order to come up with conclusions and recommend it was important first to understand the background of ICTs and gender equality. This was done through reviewing secondary sources such as literature on previous studies that had been conducted on the similar topic on the theories surrounding the study and the background to the study. It was important for the researcher to identify the gaps in literature in order to choose a research methodology that was suitable for the purpose of the study and to use appropriate methods in the analysis and presentation of the data collected from the study. This process brought to light the

role of ICTs in promoting gender equality at the workplace. The next section will discuss conclusions on the research objectives and the findings of the study from Chapter 4.

5.4 Conclusions and Linking Findings to the Research Objectives

5.4.1 Research Objective 1

This first objective was to investigate the extent of gender inequality in a selected higher education institution in South Africa based on the perceptions of a select number of university staff. Supported by literature and empirical studies in Chapter 2, gender inequality has been a long-going issue at the workplace especially in institutions of higher learning. However this situation is changing for the better due to female empowerment and the feminist movement. Based on the findings in Chapter 4.5.1, 4.5.2, and 4.5.4; it is sufficient to conclude that to a greater extent, gender inequality does not exist at the institution that was under study according to the perceptions of the respondents that were interviewed. This is because many respondents, both men and women felt that women were fairly represented at the institution, most of them deserved a promotion but they had never applied for it, with others having other research commitments which were better than executive positions and most of the respondents also said that they were afforded equal opportunities at the institution under study (Institution X). On the other hand, gender inequality cannot be entirely ruled out as a few other respondents felt that men got more pay and that there was favouritism in other departments from the HODs.

5.4.2 Research Objective 2

The second objective was to establish if a select number of the university staff members are aware of the fact that ICTs can be used as a tool to promote gender equality at the workplace. From Chapter 2, one can conclude that ICTs can be a useful tool in promoting gender equality. Based on findings from Chapter 4, section 4.5.5 one can conclude that most of the staff at the institution under study are aware that ICTs can be a useful tool in promoting gender equality. Only a few employees did not see any correlation between ICTs and gender equality. Most of the employees use ICTs for receiving or disseminating employee rights information, training and development, job tasks, communication, working from home, complaining about work conditions, exposing unfair practices in the workplace,

reporting abuse at work, and sharing of job related information. However, a few of the employees, said that they would rather complain about work conditions, expose unfair practices and report abuse at work in person and not through ICTs.

5.4.3 Research Objective 3

The third objective was to establish the extent to which ICTs are currently being used to promote gender equality at a selected higher education institution in South Africa. In correlation with literature and empirical studies, ICTs can be used to promote gender equality at the workplace through information sharing, social media platforms and women empowerment. Based on the findings from Chapter 4 on section 4.5.3, it is sufficient to conclude that at the institution under study, most of the employees are using ICTs to promote gender equality by receiving or disseminating employee rights information, training and development, job tasks, communication, working from home, complaining about work conditions, exposing unfair practices in the workplace, reporting abuse at work, and sharing of job related information. On the other hand, as mentioned above, a few of the employees, said that they would rather complain about work conditions, expose unfair practices and report abuse at work in person and not through ICTs.

5.4.4 Research Objective 4

The fourth objective was to find ways in which ICTs can be utilised to promote gender equality in the workplace. From Chapter 2, it is evident that ICTs can be used to promote gender equality by increasing flexibility at work reducing male and female absenteeism, enhancing men and women's knowledge and skills through training and development increasing their job competency, reducing workloads enhancing men and women's job satisfaction, increasing flexibility reducing male and female employee turnover, increasing awareness of both men and women employee rights, giving men and women a voice through anonymous and confidential communication and exposing unfair practices against men and women in the workplace. From the analysis in Chapter 4 in section 4.6.1, one can conclude that ICTs can be used to promote gender equality through the above-mentioned factors. On the other hand, ICTs also has negative effects which were also obtained from the analysis. These include the fact that ICTs are used as a platform for cyber-bullying and hence most of the people are now afraid to talk about any sensitive issues such as gender

inequality. Many feminists and social media activists are also using ICTs to undermine men and ICTs are creating a work/life imbalance because many people are getting addicted to it, especially social media platforms such as YouTube, Facebook, Instagram to mention but a few. The next section will discuss the contribution of the research as mentioned before in Chapter 1.

5.4.5

The researcher also found that there are other factors that may influence gender inequality in a selected higher educational institution. Based on the empirical studies in Chapter 2, there are different factors that can influence gender inequality namely education, qualifications, stereotyping, perceptual bias, family responsibility, goals and objectives, culture, masculinity culture which favours men, gender sensitive skills, and working experience. From the findings from Chapter 4, in section 4.5.5, one can conclude that most of the respondents identified factors similar to those stated in Chapter 2. These dominant factors were education, qualifications, personal goals and objectives, culture, stereotype, perceptual bias, women as carers, women not advancing because they felt they didn't deserve top positions, gender sensitive skills and length of service.

5.4.6

In correlation with empirical studies, gender equality can enhance organisational efficiency and effectiveness due equal opportunities to both men and women. Findings in Chapter 4, section 4.5.6 established that to a greater extent gender equality had a positive effect on organisational performance through availability of gender sensitive skills, satisfaction of gender sensitive customers, moderation of workplace tempers and increased transparency at the workplace. However, a few respondents disagreed to those factors especially on transparency because they argued that transparency is dependent upon an individual's ethical standards.

5.5 Contribution of the research

The study is of both theoretical and practical significance. It contributes to the body of knowledge and informs policy makers and practitioners.

5.5.1 Theoretical Contribution

This study adds to the body of knowledge how ICTs can be used to promote gender equality in the workplace. ICTs have been proven to be a useful tool in promoting gender equality in the community and workplace by giving a voice to the voiceless and disseminating crucial information. However, there is no evidence that they will have the same effect in the work environment hence this study. The study also educates stakeholders on the impact of gender equality on organisational performance making a case for the need of equal opportunities for both males and females in organisations.

5.5.2 Practical Significance of the Study

The study benefits both men and women in all industries in that they will have equal opportunities at work. From a practical point of view, this study promotes gender equality in line with the national constitution and policies, UN charters and world view. The study informs institutions of higher learning on the need to include gender equality in their curricula especially promoting the use of ICTs in this regard. The study informs policy makers on the need to integrate ICTs in gender equality policy. It also informs practitioners that ICTs can be a useful tool in promoting gender equality by giving a voice to the voiceless, increasing flexibility at work, skill development, increasing efficiency and effectiveness.

5.5.3 Benefits of the study

This study benefits stakeholders in the higher education institutions such as the government, the employees, the community, and the students.

Government- This study brings to light how ICTs can be used as an effective tool in promoting gender equality aiding the implementation of government policy. Once gender equality is achieved organisations will perform better increasing organisational and national productivity and revenue streams.

Employees- This study benefits employees in a practical way because it provides an insight on how ICTs can be used to promote gender equality and the importance of adoption of ICTs at the workplace in today's dynamic technological environment.

Community- This study benefits the community because it advocates for promotion of gender equality through ICTs. It vouches for female and male empowerment and awareness to reach equilibrium of both genders in top positions and advancement. It also emphasises on fair practices in line with ethical standards.

Students- The study provides a foundation for further studies on the topic of ICTs and gender equality. The thesis can be useful as a source of research methodology and literature to students.

The next section will state the limitations of the research as mentioned before in Chapter 1.

5.6 Limitations of the research

The study targeted only 20 participants at one institution in South Africa due to time and cost constraints and only 19 respondents were interviewed. The last respondent was not available due to work commitments so the researcher interviewed 10 women and 9 men instead. The study is based on a case study at a selected higher education institution and is qualitative hence the findings cannot be generalised to the entire population. However, the findings can be a useful foundation for which further studies can be conducted given more time. The research is sensitive in nature in that it involves questions on gender equality which may make respondents uncomfortable and defensive giving unreliable information. To counter this problem care was taken to formulate questions that were not sensitive. Furthermore, the researcher established good rapport with the research participants to obtain reliable information. The researcher used NVIVO, Microsoft Excel and thematic analysis to code and analyse qualitative due to the fact that the themes generated from the interviews on the study were nearly the same and also the respondents were only 19. It can be argued that 19 interviews are sufficient for saturation for a qualitative study (Trotter, 2012); but however computer software such as NVIVO, CAQDUS and ATLAS TI are more effective on qualitative data analysis as compared to others (Comerford, 2012). Recommendations from this study are discussed below.

5.7 Recommendations

This section gives recommendations culminating from study findings directed towards policy makers and practitioners in higher education and industry at large but it can also be applicable to other sectors and workplaces because the issue of gender equality is a world-wide crisis. Gaps were identified from empirical studies and the data analysis hence these recommendations.

- Gender equality can improve organisational performance. It is important that organisations find ways of promoting gender equality among them the use of ICTs.
- The study showed that there is a discrepancy in knowledge and use of ICTs based on gender. It is important that ICTs training is mandatory at the workplace as a way of promoting ICTs adoption and use in promoting gender equality.
- The results of the study show that ICTs can be used in promoting gender equality. Organisations are encouraged to invest in up to date ICTs for use in promoting gender equality. It is recommended that organisations ensure that they have operational ICT equipment because ICTs can be a powerful tool in eliminating gender inequality and enhancing organisational performance because it enables flexibility, streamlines job processes, enables information sharing and allows for innovation to take place.
- There is limited use of ICTs for reporting abuse and exposing unfair practices, so employees need to be made aware that ICTs can be used to report abuse. Organisations should create an ICTs platform that can be used to report abuse in an anonymous and confidential manner.
- Organisations should abolish any form of employee discrimination especially gender discrimination, stereotype and perceptual bias. This can be done by abiding by the government laws, formulating employee codes of conduct and punishing any employee that breaks the law accordingly.

The next section will discuss the need for further research.

5.8 Further research

It is highly recommended that further research is conducted based on the data collected, analysis, interpretation and findings of this study. The study was only conducted at a selected higher education institution in South Africa to investigate and evaluate the role of ICTs in promoting gender equality at the workplace. Conclusions were made based on the findings from 19 interviews. A broad study, in a different sector and different country is recommended to see if that is truly the case.

Further studies are also recommended because it is argued that even though women are advancing and attaining top positions, equilibrium with men has not yet been reached so it is important to further investigate this case.

In addition, other people would argue that there is no correlation between ICTs and gender equality even though other studies were conducted with gaps identified in Chapter 2 which influenced the researcher to conduct this study. Due to this case, further research is recommended because as mentioned before, the primary factors influencing gender equality are education, experience, qualifications, stereotype, perceptual bias, culture, organisational structure, the law, policies, ethical standards, and an individual's personal goals and objectives. Further studies are recommended to investigate the digital divide that shows that most of the IT professionals and experts are men with a few of them being women. It is fundamental to investigate the digital divide in other sectors, countries and the reasons why that is the case. The next section will give the chapter summary.

5.9 Chapter summary

This chapter discussed the conclusions and recommendations that were derived from Chapter 4. This study was carried out in a systematic way which was in line with research aim and objectives. The objectives of this study were met and the recommendations given were sufficient. This chapter also discussed the benefits, contributions, limitations of the research and the need for future research.

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APPENDICES

APPENDIX A

ETHICAL CLEARANCE



P.O. Box 1906 • Bellville 7535 South Africa • Tel: +27 21 4603291 • Email: fbmsethics@cput.ac.za
Symphony Road Bellville 7535

Office of the Chairperson Research Ethics Committee	Faculty: BUSINESS AND MANAGEMENT SCIENCES
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At a meeting of the Faculty's Research Ethics Committee on **30 April 2019**, Ethics **Approval** was granted to **Ivy Mbengo (216115965)** for research activities of **Master of Business & Information Administration** at Cape Peninsula University of Technology.

Title of dissertation/thesis/project:	ROLE OF ICTs IN PROMOTING GENDER EQUALITY IN THE WORKPLACE: STUDY OF A UNIVERSITY IN SOUTH AFRICA Lead Researcher/Supervisor: Prof V. Naicker
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Comments:

Decision: Approved

	6 August 2019
Signed: Chairperson: Research Ethics Committee	Date

Clearance Certificate No | 2019FOBREC691

APPENDIX B

INFORMED CONSENT FORM



Faculty of Business and Management Ethics informed consent form

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Category of Participants:

<i>Principals</i>	<u>x</u>	<i>Teachers</i>		<i>Parents</i>		<i>Lecturers</i>	<u>X</u>	<i>Students</i>	
<i>Other</i>	<u>x</u>	<i>Executive management, Directors, and Deans of faculties</i>							

You are kindly invited to participate in a research study being conducted by Ivy Mbengo from the Cape Peninsula University of Technology. The findings of this study will contribute towards

<i>An undergraduate project</i>		<i>A conference paper</i>	
<i>An Honours project</i>		<i>A published journal article</i>	
<i>A Master's thesis</i>	<u>X</u>	<i>A published report</i>	

Selection criteria

You were selected as a possible participant in this study because: You are part of the, university employees that the researcher would like to interview in order to answer the research questions in relation to the purpose of the study.

The information below gives details about the study to help you decide whether you would want to participate.

Title of the research:

Role of ICTs in promoting gender equality in the workplace: Study of a University in South Africa.

A brief explanation of what the research involves:

The research will involve a qualitative study of interviews with 10 men and 10 women being academic and non-academic staff so as to get a balanced response in relation to the topic. The research aim is to evaluate the role of Information Communication Technologies (ICTs) in promoting gender equality in the workplace. The research objectives were derived from the main aim or purpose of the study.

Each research participant will be interviewed by the researcher [Ms.I.Mbengo]. Each research participant will have a one on one interview with the researcher and the interview will be approximately 45 minutes to one hour long. The interview will take place at a secure place that is conducive for you in line with the ethical principles. The interview will take place in August on any date depending on your availability during weekdays anytime from 8.00am

until 15.00pm. During the interview, the researcher will be asking questions obtained from her ethically approved interview guide and taking down notes on the responses given. The researcher will use a portable digital recorder to record responses only if the respondent gives consent. Data recording will make it easier for the researcher to transcribe data, but not necessary. The recorded data will be kept in a safe place, locked away and will only be used for academic purposes and will not be shared with any third parties.

Procedures

If you volunteer to participate in this study the following will be done:

1. Describe the main research procedures to you in advance, so that you are informed about what to expect;
2. Treat all interviewees with respect by arriving on time for all the interview schedules and well prepared;
3. Conduct an introduction with the interviewee in order to break ice;
4. All the interviewees will be asked for permission to record the interviews and also take some note where applicable;
5. In a case where there is no clarity, the interviewees will be allowed to ask for confirmation or clarity of words/sentences/phrases to ensure accuracy of the data collected;
6. Participants will be told that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs;
7. Participants will be given the option of omitting questions they do not want to answer or feel uncomfortable with;
8. Participants will be told that questions do not pose any realistic risk of distress or discomfort, either physically or psychologically, to them;
9. At the end of each interview all the interviewees will be thanked for their time and information provided for this study;
10. Participants will be debriefed at the end of their participation (i.e. give them a brief explanation of the study).

Potential risks, discomforts or inconveniences

The research is of a sensitive nature on gender equality and that might make some respondents uncomfortable. The researcher intends to use the data collected from the interviews for academic purposes only. The researcher intends to be honest, truthful, and sincere. The researcher will respect the fact that the research participants have to remain anonymous and information collected will be kept confidential. Furthermore, the researcher will respect the respondents and formulate questions that are not harmful or sensitive to the respondents and the researcher will keep the research questions as the main priority of the study. This is **NOT** a feminist or an activist research, but rather an academic research that is not in favour of any gender and it will benefit both men and women in the workplace.

You are invited to contact the researchers should you have any questions about the research before or during the study. You will be free to withdraw your participation at any time without having to give a reason.

Kindly complete the table below before participating in the research.

Statement	Tick the appropriate column	
	Yes	No
1. I understand the purpose of the research.		
2. I understand what the research requires of me.		
3. I volunteer to take part in the research.		
4. I know that I can withdraw at any time.		
5. I understand that there will not be any form of discrimination against me as a result of my participation or non-participation.		
6. Comment:		

Please sign the consent form. You will be given a copy of this form on request.

Signature of participant	Date

Researchers

	Name:	Surname:	Contact details:
1.	Ivy (CPUT Postgraduate student)	Mbengo	0613025102, ivymbengo@gmail.com
2.	Prof. Visvanathan (supervisor)	Naicker	0214603113, naickervi@cput.ac.za
Contact person: Ivy Mbengo			
Contact number: 0613025102		Email: ivymbengo@gmail.com	

APPENDIX C

INTERVIEW GUIDE



PROPOSED INTERVIEW GUIDE

My name is Ivy Mbengo, a student studying for a Master’s degree in Business and Information Administration at the Cape Peninsula University of Technology. I am conducting research on how to promote gender equality using ICTs. All the information collected from this interview will be used for academic purposes only and will be kept confidential and anonymous. Your honest responses would be greatly appreciated.

ICTs are a set of complex goods and products that are used to produce; process and distribute information (processed data). Some examples are: computers and the internet, social media platforms, radios, television, fixed telephone and mobile phones.

SECTION A: PERSONAL INFORMATION AND PERCEIVED EASE OF USE OF ICTS

1. Personal information

What is your gender?	Male	Female
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What is your age?	20-29	30-39	40-49	50-59	60 years or older
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What is your highest qualification?					
Certificate	Diploma	Bachelor’s degree	Master’s degree	Doctorate	Other

How many years have you worked at this institution?				
1-5	6-10	11-15	16-20	21 years or more

How many years have you used computers at your workplace?				
Less than 1	1-3	4-6	7-10	11 years or more

2. How would you describe yourself in respect to the various levels of computer usage?

1.	Unfamiliar	I have no experience with computer technologies.
2.	Newcomer	I have attempted to use computer technologies, but I still require help on a regular basis.
3.	Beginner	I am able to perform basic functions in a limited number of computer applications.
4.	Average	I demonstrate a general competency in a number of computer applications.
5.	Advanced	I have acquired the ability to competently use a broad spectrum of computer technologies.
6.	Expert	I am extremely proficient in using a wide variety of computer technologies.

**3. Do the following statements affect your usage of computers at your workplace?
Please select only one appropriate answer for each statement.**

N = Never ₍₁₎	R = Rarely ₍₂₎	S = Sometimes ₍₃₎	O = Often ₍₄₎	VO = Very Often ₍₅₎
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	N	R	S	O	VO
1. Not enough computers at work.	①	②	③	④	⑤
2. Insufficient software licenses at work.	①	②	③	④	⑤

3. Obsolete computer equipment, which cannot be used for work execution.	①	②	③	④	⑤
4. The network is frequently down or unavailable.	①	②	③	④	⑤
5. Vandalism of computer equipment at work.	①	②	③	④	⑤
6. Internet access which is not easily accessible at work.	①	②	③	④	⑤
7. Limited work spaces which are suitable for computer equipment.	①	②	③	④	⑤

4. Have you received any form of computer training?

5. If no, please provide three main reasons as to why you have never received any computer training. If yes, please continue with question 6.

1].....

2].....

3].....

6. How competent or knowledgeable are you to do the following? Please select a level that best describes you.

1	no knowledge or ability
2	very limited knowledge or ability
3	sufficient for basic tasks only
4	good, adequate for most tasks
5	very good (confident/competent and knowledgeable)

1. Start and shut down the computer correctly?	1	2	3	4	5
2. Swapping between applications?					

3. Retrieve files from stiffer disks, flash drives and cd-roms?					
4. Copy, delete and rename files?					
5. Understand how a word processor can be used?					
6. Use a word processor at work?					
7. Understand how graphics software can be used?					
8. Use a graphics package to prepare work materials?					
9. Understand how a spreadsheet can be used?					
10. Use a spreadsheet to prepare work materials?					
11. Understand how a database can be used?					
12. Use databases in lessons?					
13. Use content specific software at work?					
14. Understand how the World Wide Web (www) can be used?					
15. Use the World Wide Web to support your work?					
16. Understand how e-mail can be used?					
17. Participate in "real-time" discussions, e.g., in a chat room.					
18. Understand how to use a proxima					

SECTION B: ASSESSMENT OF GENDER DIVERSITY AND EQUALITY

1. To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.
2. Do you believe you deserve a promotion?
3. Do you use ICTs for...?
 - a. Receiving or disseminating employee rights information
 - b. Training and development
 - c. Job tasks
 - d. Communication
 - e. Working from home
 - f. Complaining about work conditions
 - g. Exposing unfair practices in the workplace

- h. Reporting abuse at work
 - i. Sharing of job related information
4. To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.
 5. In your opinion what factors can influence gender inequality at this institution?
 6. Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:
 - a. The availability of gender sensitive skills.
 - b. The satisfaction of gender sensitive customers.
 - c. Moderating of tempers in the workplace.
 - d. Increasing transparency in the workplace

SECTION C: ICTs AND GENDER EQUALITY

7. Please comment on each of the following indicating whether you agree or disagree that:
 - a. ICTs can increase flexibility at work reducing male and female absenteeism
 - b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency
 - c. ICTs can reduce workloads enhancing men and women's job satisfaction
 - d. ICTs can increase flexibility reducing male and female employee turnover
 - e. ICTs can increase awareness of both men and women employee rights
 - f. ICTs can give men and women a voice through anonymous and confidential communication
 - g. ICTs can expose unfair practices against men and women in the workplace

*******THANK YOU FOR YOUR ASSISTANCE*******

APPENDIX D

EXCEL DATA SHEET FOR SECTION A

Position	Gender	Age	Highest Qualification	Years worked at institution	Years of computer usage	Level of computer usage	Not enough computers	Insufficient software licenses	Obsolete equipment	Network bandwidth	Validation of computers	No internet access	Unfamiliar with software	Computer training	Standard of software	Software applications	Refuse files	Copy/delete/rename	Understand word processor	Use word processor	Understand graphics	Capable for work	Understand spreadsheet	Spreadsheet for work	Understand database	Database for lessons	Content software at work	Understand WWW	Use WWW for work	Understand e-mail	Real-time discussion in chat room	Understand province	
1	1	4	6	1	5	5	1	1	1	3	1	1	1	1	5	5	5	5	3	5	5	5	4	4	5	3	5	5	5	5	5	1	
2	1	3	6	2	4	5	1	1	1	3	1	3	2	1	5	5	5	5	5	5	3	4	5	5	5	4	5	5	5	5	5	2	
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7																																	
8	2	4	5	3	5	4	1	1	1	1	1	1	1	1	5	5	5	5	5	5	4	4	5	5	4	4	4	5	5	5	5	1	
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15	1	3	4	1	3	5	1	1	1	3	1	3	1	1	5	5	5	5	5	5	3	3	5	5	5	5	5	5	5	5	5	3	4
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20	2	5	5	4	5	4	1	1	1	3	1	3	1	1	5	5	5	5	5	5	4	4	5	5	5	3	5	5	5	5	3	1	

APPENDIX E

SPSS OUTPUT

Frequency Tables

What is your gender?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	9	47.4	47.4	47.4
Female	10	52.6	52.6	100.0
Total	19	100.0	100.0	

What is your age?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 30-39 years	1	5.3	5.3	5.3
40-49 years	6	31.6	31.6	36.8
50-59 years	11	57.9	57.9	94.7
60 years and older	1	5.3	5.3	100.0
Total	19	100.0	100.0	

What is your highest qualification?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Masters degree	6	31.6	31.6	31.6
Doctorate	6	31.6	31.6	63.2
Professor	7	36.8	36.8	100.0
Total	19	100.0	100.0	

How many years have you worked at this institution?

	Frequency	Percent	Valid Percent	Cumulative Percent
1-5 years	4	21.1	21.1	21.1
6-10 years	10	52.6	52.6	73.7
Valid 11-15 years	2	10.5	10.5	84.2
16-20 years	3	15.8	15.8	100.0
Total	19	100.0	100.0	

How many years have you used computers at your workplace?

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 1 year	1	5.3	5.3	5.3
4-6 years	5	26.3	26.3	31.6
Valid 7-10 years	7	36.8	36.8	68.4
11 years and over	6	31.6	31.6	100.0
Total	19	100.0	100.0	

How would you describe yourself in respect to the various levels of computer usage?

	Frequency	Percent	Valid Percent	Cumulative Percent
Newcomer	2	10.5	10.5	10.5
Advanced	10	52.6	52.6	63.2
Valid Expert	6	31.6	31.6	94.7
6	1	5.3	5.3	100.0
Total	19	100.0	100.0	

Not enough computers at work.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never	16	84.2	84.2	84.2
Rarely	3	15.8	15.8	100.0

Total	19	100.0	100.0
-------	----	-------	-------

Insufficient software licenses at work.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never	17	89.5	89.5	89.5
Rarely	2	10.5	10.5	100.0
Total	19	100.0	100.0	

Obsolete computer equipment, which cannot be used for work execution.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never	16	84.2	84.2	84.2
Rarely	2	10.5	10.5	94.7
Sometimes	1	5.3	5.3	100.0
Total	19	100.0	100.0	

The network is frequently down or unavailable.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never	2	10.5	10.5	10.5
Rarely	1	5.3	5.3	15.8
Sometimes	14	73.7	73.7	89.5
Often	2	10.5	10.5	100.0
Total	19	100.0	100.0	

Vandalism of computer equipment at work.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never	13	68.4	68.4	68.4
Rarely	5	26.3	26.3	94.7
Sometimes	1	5.3	5.3	100.0
Total	19	100.0	100.0	

Internet access which is not easily accessible at work.

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	3	15.8	15.8	15.8
Rarely	1	5.3	5.3	21.1
Valid Sometimes	13	68.4	68.4	89.5
Often	2	10.5	10.5	100.0
Total	19	100.0	100.0	

Limited work spaces which are suitable for computer equipment.

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	17	89.5	89.5	89.5
Valid Rarely	2	10.5	10.5	100.0
Total	19	100.0	100.0	

Have you received any form of computer training?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	19	100.0	100.0	100.0

Start and shut down the computer correctly?

	Frequency	Percent	Valid Percent	Cumulative Percent
good and adequate for most tasks	1	5.3	5.3	5.3
Valid Very good: Confident, competent and knowledgeable	18	94.7	94.7	100.0
Total	19	100.0	100.0	

Swapping between applications?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid good and adequate for most tasks	1	5.3	5.3	5.3
Valid Very good: Confident, competent and knowledgeable	18	94.7	94.7	100.0
Total	19	100.0	100.0	

Retrieve files from stiffer disks, flash drives and cd-roms?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid good and adequate for most tasks	1	5.3	5.3	5.3
Valid Very good: Confident, competent and knowledgeable	18	94.7	94.7	100.0
Total	19	100.0	100.0	

Copy, delete and rename files?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very good: Confident, competent and knowledgeable	19	100.0	100.0	100.0

Understand how a word processor can be used?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Sufficient for basic tasks only	1	5.3	5.3	5.3
Valid Very good: Confident, competent and knowledgeable	18	94.7	94.7	100.0
Total	19	100.0	100.0	

Use a word processor at work?

	Frequency	Percent	Valid Percent	Cumulative Percent
Sufficient for basic tasks only	1	5.3	5.3	5.3
Valid Very good: Confident, competent and knowledgeable	18	94.7	94.7	100.0
Total	19	100.0	100.0	

Understand how graphics software can be used?

	Frequency	Percent	Valid Percent	Cumulative Percent
Very limited knowledge or ability	1	5.3	5.3	5.3
Sufficient for basic tasks only	5	26.3	26.3	31.6
Valid good and adequate for most tasks	5	26.3	26.3	57.9
Very good: Confident, competent and knowledgeable	8	42.1	42.1	100.0
Total	19	100.0	100.0	

Use a graphics package to prepare work materials?

	Frequency	Percent	Valid Percent	Cumulative Percent
Sufficient for basic tasks only	7	36.8	36.8	36.8
Valid good and adequate for most tasks	6	31.6	31.6	68.4
Very good: Confident, competent and knowledgeable	6	31.6	31.6	100.0
Total	19	100.0	100.0	

Understand how a spreadsheet can be used?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sufficient for basic tasks only	1	5.3	5.3
	good and adequate for most tasks	1	5.3	10.5
	Very good: Confident, competent and knowledgeable	17	89.5	89.5
	Total	19	100.0	100.0

Use a spreadsheet to prepare work materials?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sufficient for basic tasks only	1	5.3	5.3
	good and adequate for most tasks	1	5.3	10.5
	Very good: Confident, competent and knowledgeable	17	89.5	89.5
	Total	19	100.0	100.0

Understand how a database can be used?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very limited knowledge or ability	1	5.3	5.3
	good and adequate for most tasks	2	10.5	15.8
	Very good: Confident, competent and knowledgeable	16	84.2	84.2
	Total	19	100.0	100.0

Use databases in lessons?

	Frequency	Percent	Valid Percent	Cumulative Percent
Very limited knowledge or ability	1	5.3	5.3	5.3
Sufficient for basic tasks only	4	21.1	21.1	26.3
Valid good and adequate for most tasks	5	26.3	26.3	52.6
Very good: Confident, competent and knowledgeable	9	47.4	47.4	100.0
Total	19	100.0	100.0	

Use content specific software at work?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid good and adequate for most tasks	4	21.1	21.1	21.1
Very good: Confident, competent and knowledgeable	15	78.9	78.9	100.0
Total	19	100.0	100.0	

Understand how the World Wide Web (www) can be used?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid good and adequate for most tasks	1	5.3	5.3	5.3
Very good: Confident, competent and knowledgeable	18	94.7	94.7	100.0
Total	19	100.0	100.0	

Use the World Wide Web to support your work?

	Frequency	Percent	Valid Percent	Cumulative Percent
good and adequate for most tasks	1	5.3	5.3	5.3
Valid Very good: Confident, competent and knowledgeable	18	94.7	94.7	100.0
Total	19	100.0	100.0	

Understand how e-mail can be used?

	Frequency	Percent	Valid Percent	Cumulative Percent
good and adequate for most tasks	1	5.3	5.3	5.3
Valid Very good: Confident, competent and knowledgeable	18	94.7	94.7	100.0
Total	19	100.0	100.0	

Participate in "real-time" discussions, e.g., in a chat room.

	Frequency	Percent	Valid Percent	Cumulative Percent
Sufficient for basic tasks only	2	10.5	10.5	10.5
Valid good and adequate for most tasks	4	21.1	21.1	31.6
Very good: Confident, competent and knowledgeable	13	68.4	68.4	100.0
Total	19	100.0	100.0	

Understand how to use a proxima

	Frequency	Percent	Valid Percent	Cumulative Percent
No knowledge or ability	8	42.1	42.1	42.1
Very limited knowledge or ability	6	31.6	31.6	73.7
Valid Sufficient for basic tasks only	3	15.8	15.8	89.5
good and adequate for most tasks	2	10.5	10.5	100.0
Total	19	100.0	100.0	

```

DATASET ACTIVATE DataSet1.
SAVE OUTFILE='C:\Users\MBote\Desktop\lvy Final\lvy.quantitative.sav'
/COMPRESSED.
FREQUENCIES VARIABLES=Gender Age Highest_qualification Years_at_institution Years_using_computer
Level_computer_usage Barrier_1 Barrier_2 Barrier_3 Barrier_4 Barrier_5 Barrier_6 Barrier_7 Computer_training
Skill_1 Skill_2 Skill_3 Skill_4 Skill_5 Skill_6
Skill_7 Skill_8 Skill_9 Skill_10 Skill_11 Skill_12 Skill_13 Skill_14 Skill_15 Skill_16 Skill_17 Skill_18
/ORDER=ANALYSIS.
    
```

Frequencies

Notes	
Output Created	27-AUG-2019 10:14:37
Comments	
Input	Data Active Dataset Filter Weight Split File N of Rows in Working Data File
Missing Value Handling	Definition of Missing Cases Used
	C:\Users\MBote\Desktop\lvy Final\lvy.quantitative.sav DataSet1 <none> <none> <none> 19 User-defined missing values are treated as missing. Statistics are based on all cases with valid data.

Syntax		FREQUENCIES VARIABLES=Gender Age Highest_qualification Years_at_institution Years_using_computer Level_computer_usage Barrier_1 Barrier_2 Barrier_3 Barrier_4 Barrier_5 Barrier_6 Barrier_7 Computer_training Skill_1 Skill_2 Skill_3 Skill_4 Skill_5 Skill_6 Skill_7 Skill_8 Skill_9 Skill_10 Skill_11 Skill_12 Skill_13 Skill_14 Skill_15 Skill_16 Skill_17 Skill_18 /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.09
	Elapsed Time	00:00:00.09

[DataSet1] C:\Users\MBote\Desktop\Ivy Final\Ivy.quantitative.sav

Statistics

		What is your gender?	What is your age?	What is your highest qualification?	How many years have you worked at this institution?	How many years have you used computers at your workplace?
N	Valid	19	19	19	19	19
	Missing	0	0	0	0	0

Statistics

		How would you describe yourself in respect to the various levels of computer usage?	Not enough computers at work.	Insufficient software licenses at work.	Obsolete computer equipment, which cannot be used for work execution.	The network is frequently down or unavailable.
N	Valid	19	19	19	19	19
	Missing	0	0	0	0	0

Statistics

		Vandalism of computer equipment at work.	Internet access which is not easily accessible at work.	Limited work spaces which are suitable for computer equipment.	Have you received any form of computer training?	Start and shut down the computer correctly?
N	Valid	19	19	19	19	19
	Missing	0	0	0	0	0

Statistics

		Swapping between applications?	Retrieve files from stiffy disks, flash drives and cd-roms?	Copy, delete and rename files?	Understand how a word processor can be used?	Use a word processor at work?
N	Valid	19	19	19	19	19
	Missing	0	0	0	0	0

Statistics

		Understand how graphics software can be used?	Use a graphics package to prepare work materials?	Understand how a spreadsheet can be used?	Use a spreadsheet to prepare work materials?	Understand how a database can be used?
N	Valid	19	19	19	19	19
	Missing	0	0	0	0	0

Statistics

		Use databases in lessons?	Use content specific software at work?	Understand how the World Wide Web (www) can be used?	Use the World Wide Web to support your work?	Understand how e-mail can be used?
N	Valid	19	19	19	19	19
	Missing	0	0	0	0	0

Statistics

			Participate in "real-time" discussions, e.g., in a chat room.	Understand how to use a proxima
N	Valid		19	19
	Missing		0	0

APPENDIX F

INTERVIEW TRANSCRIPT

Transcription of interviews

Interview Blueprint

Participant A

Researcher: Good day sir, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes Miss Mbengo you may proceed with the interview.

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes because there is no policy that prevents anyone from holding any position.

Researcher: Do you believe you deserve a promotion?

Participant: Yes definitely.

Researcher: Do you use ICTs for...?

h. Receiving or disseminating employee rights information

Participant: Yes I do

i. Training and development

Participant: Yes I do, sometimes we attend training sessions and we use projectors and laptops

j. Job tasks

Participant: Yes I do, I use the workplace PC plus I also have my own personal laptop

k. Communication

Participant: Yes we do communicate using ICTs, this is a big university

l. Working from home

Participant: Yes I do, my job is demanding so I have to work from home

m. Complaining about work conditions

Participant: Yes I do

n. Exposing unfair practices in the workplace

Participant: No I don't because I have never come across that yet

o. Reporting abuse at work

Participant: No I don't because I have never been abused at work before

p. Sharing of job related information

Participant: Yes I always do that

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Fairly yes because the deputy vice chancellor is female and most of the deans are female.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Education, for example qualifications and experience.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

- a. The availability of gender sensitive skills.
Participant: I agree
- b. The satisfaction of gender sensitive customers.
Participant: I do not agree on that, I don't see any correlation
- c. Moderating of tempers in the workplace.
Participant: Yes I agree
- d. Increasing transparency in the workplace
Participant: Yes I agree, but I can't really explain it

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes we may proceed

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

- a. ICTs can increase flexibility at work reducing male and female absenteeism
Participant: Yes I agree
- b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency
Participant: Yes I agree
- c. ICTs can reduce workloads enhancing men and women's job satisfaction
Participant: Yes I agree
- d. ICTs can increase flexibility reducing male and female employee turnover
Participant: Yes I agree
- e. ICTs can increase awareness of both men and women employee rights
Participant: I don't think so; I think this is not applicable
- f. ICTs can give men and women a voice through anonymous and confidential communication
Participant: Yes I agree
- g. ICTs can expose unfair practices against men and women in the workplace
Participant: Yes I agree

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you and all the best with your research.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant B

Researcher: Good day, how are you?

Participant: I am fine thank you, remind me what is your study about again?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been

studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes let's proceed with the interview.

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes I believe so because people are appointed due to their qualifications and experience. In SA even women have a voice due to democracy.

Researcher: Do you believe you deserve a promotion?

Participant: Yes.

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes I do

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes I use the laptop all the time; I use a projector in conducting lectures.

d. Communication

Participant: Yes I use the Internet for communication with my students, colleagues, basically everyone. I check my emails often and this is very helpful, it makes communication very easy even when I am out of town.

e. Working from home

Participant: Yes I do, sometimes I have to mark and grade at home

f. Complaining about work conditions

Participant: Yes I do, I am very active when it comes to grievances

g. Exposing unfair practices in the workplace

Participant: No I have never done that

h. Reporting abuse at work

Participant: No I have never been abused at work and I don't know if any employee has been through that yet.

i. Sharing of job related information

Participant: Yes I do, all the time.

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: The ratio of positions held by men versus that of women is almost equal I would say, but like I said people acquire top positions due to their competence, goals, experience and primarily education.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Training and development, employee rights and employment law. There are no jobs that are advertised that discriminate a particular gender, but it's merely based on qualifications and education.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: I agree

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree because ICTs make everything easy and convenient

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree, my knowledge and skills are always enhancing by the use of ICTs, but primarily because I am willing to

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: I agree

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: I agree

e. ICTs can increase awareness of both men and women employee rights

Participant: I agree

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree

g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes I agree

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, I just wanted to say this is an interesting topic and all the best with your studies.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant C

Researcher: Good day, how are you?

Participant: I am fine thank you.

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes let's continue with the interview.

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: I would agree to that in terms of remuneration and fair practices at work. There are laws against gender discrimination which are in favour of every employee and most of the people are aware of their employee rights irrespective of gender.

Researcher: Do you believe you deserve a promotion?

Participant: Yes who doesn't haha?

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes I do

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes I do everything is digital these days

d. Communication

Participant: Yes always

e. Working from home

Participant: Yes I am always working from home, even when I am on leave

f. Complaining about work conditions

Participant: Yes I do

g. Exposing unfair practices in the workplace

Participant: Yes I do

h. Reporting abuse at work

Participant: Yes I do

i. Sharing of job related information

Participant: Definitely

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Yes because more women hold executive positions. The chancellor and vice chancellor are both women.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Employee rights, labour law, female empowerment, education and technology. The trends in the 21st century influence gender equality especially the feminist movement and social media activists.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree

b. The satisfaction of gender sensitive customers.

Participant: I can't say most of the people are bothered by gender sensitive skills anymore

c. Moderating of tempers in the workplace.

Participant: Yes I agree

d. Increasing transparency in the workplace

Participant: Yes I agree

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes

- c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes

- d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes

- e. ICTs can increase awareness of both men and women employee rights

Participant: Yes

- f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes

- g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes I strongly agree, but there are other factors such as personality and drive. Other people are suffering in silence because they are not confident enough to speak out. Others are afraid of losing their jobs, whistle blowing is not easy.

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant D

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes you can.

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: I can't say yes or no, but based on my experience both men and women are afforded equal opportunities. Everyone is free to apply for any position, but it is entirely dependent on the level of skills and experience, education as well for a person to qualify. You can't apply for an HOD position without the appropriate requirements and say that you have been discriminated.

Researcher: Do you believe you deserve a promotion?

Participant: Yes of course, I am dying for a promotion.

Researcher: Do you use ICTs for...?

- a. Receiving or disseminating employee rights information

Participant: Yes

b. Training and development

Participant: Yes

c. Job tasks

Participant: Yes I do, all the time

d. Communication

Participant: Yes I communicate via emails and WhatsApp

e. Working from home

Participant: Yes I do

f. Complaining about work conditions

Participant: Well, no actually

g. Exposing unfair practices in the workplace

Participant: No I have never done that

h. Reporting abuse at work

Participant: I have never done that as well

i. Sharing of job related information

Participant: Yes indeed

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Like I said before, I can't give a definite answer, but my opinion remains the same based on my experiences. I have never seen any form of discrimination throughout my years of employment here, but I can't rule that out and say no.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Fair practices at the institution and the South African law. I think generally these days people are too cautious about gender issues especially feminists and this has become a very sensitive topic so most of the organisations are trying to be equitable because they can't afford to tarnish their image. There were cases of inequality that were reported at some universities and this was all over the media, it was not a good image so most of the universities are trying by all means to follow regulations to avoid such cases, as this can destroy reputation in a second because of media outcry. These days you don't know who is recording you, it's like technology is watching you everywhere things go viral in a second.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: Yes I agree

d. Increasing transparency in the workplace

Participant: Yes I agree

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes we may proceed

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree

e. ICTs can increase awareness of both men and women employee rights

Participant: I agree

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree

g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes I agree

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant E

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes ready when you are.

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes because we don't have discrimination here, be it gender, religion or race, we treat each other fairly and with respect. There are rare incidents of unfair practices, of course no organisation is perfect, but here we respect each other.

Researcher: Do you believe you deserve a promotion?

Participant: I was already promoted, but I don't mind getting promoted again.

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes all the time

d. Communication

Participant: Yes

e. Working from home

Participant: Yes most of the time

f. Complaining about work conditions

Participant: Yes I do

g. Exposing unfair practices in the workplace

Participant: Yes

h. Reporting abuse at work

Participant: Yes

i. Sharing of job related information

Participant: Yes

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Yes, I think females are dominating the world these days because if you look at this institution, I think more women hold executive positions because the chancellor and the deputy vice chancellor are women. Most of the deans are women and I think lecturers are equally represented in departments as well.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: The law, level of education and experience that an individual has. Personal goals and objectives influence gender equality because if a person wants to advance, they will put an effort, and work towards it. Most women have families to take care of, husbands and other commitments. I used to have a female colleague who was mostly absent because her child had a serious health condition. But I think people now employ nannies and they also take their children to day care centres so now they have more time to work.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: Yes I agree

d. Increasing transparency in the workplace

Participant: Yes I agree

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes we may proceed

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree

e. ICTs can increase awareness of both men and women employee rights

Participant: I agree

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree

g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes I agree

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you and all the best with your research.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant F

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: No. The pure fact that I was fully aware that there are differences in remuneration. Male counterparts get more pay there is this thing called the "boys club" in organisations.

Researcher: Can you elaborate please? Are you really certain about the pay gaps? Have you seen it or it's just a common thing?

Participant: It's something that I really know, it's just that they have made it impossible to share remuneration information due to confidentiality reasons, but this is a fact that there are pay gaps.

Researcher: Do you believe you deserve a promotion?

Participant: Yes because I work hard, I put in the required effort.

Researcher: Do you use ICTs for...?

- a. Receiving or disseminating employee rights information

Participant: Yes I am good at that

- b. Training and development

Participant: Yes I do

- c. Job tasks

Participant: Yes I do

- d. Communication

Participant: Yes

- e. Working from home

Participant: Yes I am a pro at working from home

- f. Complaining about work conditions

Participant: Yes I do

- g. Exposing unfair practices in the workplace

Participant: No

- h. Reporting abuse at work

Participant: No

- i. Sharing of job related information

Participant: Yes regularly

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: I think there is a fair representation especially in teaching positions.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Imposing a rule where you balance out open positions that are open to females, as much as this is discriminating to men, I believe there has to be some sort of discrimination for us to get that balance and equality.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree because when we are looking at gender sensitive skills, we are looking at an environment where people are aware that they are different. A man knowing he is different from a woman and vice versa.

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I think it helps

d. Increasing transparency in the workplace

Participant: I am not sure because you can have a balance of people who are unethical, so transparency solely depends on the individual's morals.

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes we may

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: No. I feel like ICTs increase the workload because you will have to work at home. You can access your files from any device anywhere, you become a workaholic and lose work/life balance. ICTs are addictive they destroy a social life, especially social media platforms. I have to be on my phone all the time. The Internet is addictive and this has a lot of negative effects!

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree

e. ICTs can increase awareness of both men and women employee rights

Participant: Yes

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree, creation of ghost accounts and anonymous reviews on websites.

g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes that's the whole point, people are bringing all their issues on social media and exposing a lot of unfair practices. A weird, but practical example is the issue that just went viral with activists protesting why Miss South Africa's judges are only women, but there is no men?

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you. It's quite an interesting topic, I never thought ICTs and gender have a correlation, but after this interview you have brought an insight.

Researcher: Thank you.

Participant G- No response

Transcription of interviews

Interview Blueprint

Participant H

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes we can

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes we are, because there are no positions that are meant for men only here.

Researcher: Do you believe you deserve a promotion?

Participant: Yes.

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes I do

d. Communication

Participant: Yes

e. Working from home

Participant: Yes

f. Complaining about work conditions

Participant: No I don't

g. Exposing unfair practices in the workplace

Participant: No

h. Reporting abuse at work

Participant: No.

i. Sharing of job related information

Participant: Yes

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Yes they are, because the chancellor and DVC are women.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Education and experience.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: I agree.

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes we can

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree.

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree.

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree.

e. ICTs can increase awareness of both men and women employee rights

Participant: Yes I agree

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: I agree.

g. ICTs can expose unfair practices against men and women in the workplace

Participant: I agree.

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant I

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes we can

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes because there are no gender specific vacancies at this institution.

Researcher: Do you believe you deserve a promotion?

Participant: Yes.

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes I do

d. Communication

Participant: Yes

e. Working from home

Participant: All the time

f. Complaining about work conditions

Participant: Sometimes

g. Exposing unfair practices in the workplace

Participant: No

h. Reporting abuse at work

Participant: I would rather do that in person.

i. Sharing of job related information

Participant: Yes

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Yes they are, because there are many women with managerial and executive positions at this institution.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Low levels of education can cause inequality. I believe the more educated both men and women are, the more they can both progress.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: I agree.

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes we can

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree.

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree, we no longer have to carry around files and folders. Most of the things are digital these days. Computer aided software streamlines processes.

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree to a certain extent because turnover is dependent on motivation; the type of the organisation or leadership. You can have ICTs, but if you are not happy at work you can leave.

e. ICTs can increase awareness of both men and women employee rights

Participant: Yes

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: It can be a useful tool for that.

g. ICTs can expose unfair practices against men and women in the workplace

Participant: As a tool, yes.

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant J

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes we can

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes things have changed we are living in a digital era and everyone has equal rights and a fair chance to being recruited provided they meet the requirements.

Researcher: Do you believe you deserve a promotion?

Participant: Yes I do

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes I do

d. Communication

Participant: Yes

e. Working from home

Participant: Yes

f. Complaining about work conditions

Participant: Sometimes

g. Exposing unfair practices in the workplace

Participant: Yes

h. Reporting abuse at work

Participant: Yes.

i. Sharing of job related information

Participant: Yes

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Yes they are, if you take a look around, you can see that most women have managerial positions even though the ratio is not the same with that of men. Women are making it these days because they are driven by goals.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Qualifications, goals, education. Culture used to be the culprit, but hey things have changed drastically so that is no longer the case.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: I agree.

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree.

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree.

e. ICTs can increase awareness of both men and women employee rights

Participant: Yes

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree.

g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes.

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant K

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes we all are. Based on my experience no one has been discriminated before here. People have a voice especially women due to this so called feminist movement.

Researcher: Do you believe you deserve a promotion?

Participant: Yes

Researcher: Do you use ICTs for...?

- a. Receiving or disseminating employee rights information

Participant: Yes

- b. Training and development

Participant: Yes I do

- c. Job tasks

Participant: Yes I do

- d. Communication

Participant: Yes

- e. Working from home

Participant: Yes

- f. Complaining about work conditions

Participant: Yes I do

- g. Exposing unfair practices in the workplace

Participant: Yes

- h. Reporting abuse at work

Participant: No, I would rather address this in person.

- i. Sharing of job related information

Participant: Yes we use ICTs for everything these days.

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Yes because the DVC and chancellor are women. If they were not fairly represented then they wouldn't be having those positions. I believe the DVC and chancellor are qualified for their positions and they have worked hard to get there. I don't think I deserve the chancellor position yet.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Well maybe perceptual bias and stereotype, but it's all phasing out. Women can now make decisions, I mean strategic decisions as well and they can handle top positions. I feel that women these days are physically, emotionally and intellectually ready to take up such responsibilities at work and at home. At my house, I help my wife with everything. The only difference is that I can't get pregnant like her ha-ha.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree.

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: I agree

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree

e. ICTs can increase awareness of both men and women employee rights

Participant: Yes

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree.

g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes I agree

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant L

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't

answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes we are. If you apply for a certain position and you qualify, you won't get rejected based on gender at this institution. They require skills from both men and women. Only the best can make it, obstacles are fewer these days. I see a lot of women advancing even the younger generation.

Researcher: Do you believe you deserve a promotion?

Participant: Yes, but I haven't applied for any top positions such as Dean or Chancellor yet.

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes

b. Training and development

Participant: Yes it's very helpful

c. Job tasks

Participant: Yes I do

d. Communication

Participant: Yes

e. Working from home

Participant: Yes

f. Complaining about work conditions

Participant: Yes I do

g. Exposing unfair practices in the workplace

Participant: Yes

h. Reporting abuse at work

Participant: No, I have never done that.

i. Sharing of job related information

Participant: Yes all the time.

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Yes they are, but I believe we have not reached equilibrium yet. People are where they are supposed to be in terms of qualifications and skills. Posts are always popping up so if they want to advance then what's stopping them?

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Fear of the unknown, other women still feel some type of way, they are not yet ready to take up bigger demanding roles, maybe due to family responsibility and other things. Men build their careers and continue with their studies because they have limited drawbacks as compared to women who have to cater for their families. I missed out on some opportunities when I was pregnant, I could not travel often when I was doing my research. This was a drawback for me and even when the baby was born, I remember taking a lot of sick leave from work whenever the baby fell ill and whenever I took the baby for immunisations.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree.

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: I agree

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes definitely

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree

e. ICTs can increase awareness of both men and women employee rights

Participant: Yes

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree.

g. ICTs can expose unfair practices against men and women in the workplace

Participant: I feel like people are now abusing this issue of gender equality on the Internet. They are doing too much and this is leading to cyber bullying. I saw a documentary of a woman who hung herself, she blogged about being raped and abused at work. She got support from other people, but she received a lot of backlash. She felt ashamed even to face her family and she hung herself. It was sad. You have to be ready to get criticized and shamed before you post anything on the Internet no matter how genuine it is.

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant M

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes because I have never encountered any cases of gender discrimination here.

Researcher: Do you believe you deserve a promotion?

Participant: No I am fine with my position, I have other research commitments.

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes I do

d. Communication

Participant: Yes

e. Working from home

Participant: Yes

f. Complaining about work conditions

Participant: No

g. Exposing unfair practices in the workplace

Participant: No

h. Reporting abuse at work

Participant: No

i. Sharing of job related information

Participant: Yes we do.

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Yes because the DVC and chancellor are women. Most of the deans are women as well. Lecturers are fairly represented here. I am talking from my point of view, but I can't rule out any underrepresentation.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Education, qualifications, experience, the law, personal behaviour and attitude towards others.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: But here most if not all administrative assistants are women.

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: Yes

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

- b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree

- c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree

- d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree

- e. ICTs can increase awareness of both men and women employee rights

Participant: Yes I agree

- f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree.

- g. ICTs can expose unfair practices against men and women in the workplace

Participant: I feel like men are being undermined on the Internet, any small thing we do is considered offensive. I can't even pat my female colleague on the back, but if she does it there is no problem. Women are taking over especially feminists and social media activists. I laughed the other day I watched a social experiment on YouTube. When people walked past and saw a guy harassing a woman, they all stopped and intervened, but when they saw the woman harassing the guy, they all walked past. It's so sad how the Internet is shaping people's way of thinking, it's accelerating situations. Sometimes I feel like the Internet is making people biased. How many people have committed suicide because of cyber bullying?

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant N

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes they are, Labour Law protects the entire employees' rights here in South Africa. This is a democratic country, everyone is free.

Researcher: Do you believe you deserve a promotion?

Participant: Yes that's why I keep advancing myself, getting more educated while I am building my working experience.

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes I do

d. Communication

Participant: Yes

e. Working from home

Participant: Yes

f. Complaining about work conditions

Participant: Yes I do

g. Exposing unfair practices in the workplace

Participant: No I don't

h. Reporting abuse at work

Participant: No, I have never been in that situation.

i. Sharing of job related information

Participant: Yes.

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Yes definitely even through representation is not yet 50-50.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Education, experience, morals and personal objectives and goals as well.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree.

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: I agree

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree, but sometimes you get flooded with work emails that you won't even have time to go through all of them.

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree

e. ICTs can increase awareness of both men and women employee rights

Participant: Yes

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree.

g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes I agree

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant 0

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes. Gender inequality is a world-wide crisis and no organisation would like to jeopardise themselves by not giving men and women opportunities.

Researcher: Do you believe you deserve a promotion?

Participant: Yes

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes I do

d. Communication

Participant: Yes

e. Working from home

Participant: Yes

f. Complaining about work conditions

Participant: Yes I do

g. Exposing unfair practices in the workplace

Participant: Yes

h. Reporting abuse at work

Participant: No, I would rather address this in person.

i. Sharing of job related information

Participant: Yes.

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Yes, most of the women are in management here.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: I believe education is the key, but of course there are other reasons such as length of service, perception and engagement at the workplace.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree.

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: I am not sure about that.

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree

e. ICTs can increase awareness of both men and women employee rights

Participant: Yes I agree

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree.

g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes I agree

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant P

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes everyone is free to apply for any position.

Researcher: Do you believe you deserve a promotion?

Participant: Yes, but I have never applied for any promotion.

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes I do

d. Communication

Participant: Yes I do

e. Working from home

Participant: Yes I do

f. Complaining about work conditions

Participant: Yes I do

g. Exposing unfair practices in the workplace

Participant: Yes I do

h. Reporting abuse at work

Participant: Yes I do.

i. Sharing of job related information

Participant: Yes I do.

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Even though women are breaking through and obtaining top positions, I feel like men are still dominant. Here the DVC and chancellor are women, in other positions I feel like men are still dominant.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: If more men are qualified than women then obviously more men will hold top positions, but if more women are qualified than men then they will hold the top positions. If they are both qualified and eligible for a position, then they will all hold top positions.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree.

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: I am not sure about that.

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree

e. ICTs can increase awareness of both men and women employee rights

Participant: Yes I agree

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree.

g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes I agree

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant Q

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes because of employee rights.

Researcher: Do you believe you deserve a promotion?

Participant: Yes I do

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes I do

d. Communication

Participant: Yes I do

e. Working from home

Participant: Yes I do

f. Complaining about work conditions

Participant: Yes I do

g. Exposing unfair practices in the workplace

Participant: Yes I do

h. Reporting abuse at work

Participant: Yes I do

i. Sharing of job related information

Participant: Yes I do

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: These days yes, before woman were underrepresented, but now they are fairly represented.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Education, qualifications and experience.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree.

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: I agree

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree

e. ICTs can increase awareness of both men and women employee rights

Participant: Yes I agree

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree.

g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes I agree

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant R

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes sure.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes no comment.

Researcher: Do you believe you deserve a promotion?

Participant: Yes I think everyone believes they deserve a promotion

Researcher: Do you use ICTs for...?

- a. Receiving or disseminating employee rights information

Participant: Yes

- b. Training and development

Participant: Yes I do

- c. Job tasks

Participant: Yes I do

- d. Communication

Participant: Yes

- e. Working from home

Participant: Yes

- f. Complaining about work conditions

Participant: No I don't

- g. Exposing unfair practices in the workplace

Participant: No I don't

- h. Reporting abuse at work

Participant: No I don't.

- i. Sharing of job related information

Participant: Yes.

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Yes, no comment.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Culture and norm, education, qualifications, individual's desired achievements, the list is endless. If you want to win a race, you have to train, work hard, put in a lot of effort then compete and run as fast as you can. Same applies to employee advancement.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree.

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: Yes I agree

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree

e. ICTs can increase awareness of both men and women employee rights

Participant: Yes I agree

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree.

g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes I agree

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you.

Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant S

Researcher: Good day, how are you?

Participant: I am fine thank you, how can I be of assistance? What is your study about?

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes we are because I have never seen any form of discrimination or stereotype here

Researcher: Do you believe you deserve a promotion?

Participant: No, I am not at that level yet, but maybe in the future.

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes I do

d. Communication

Participant: Yes

e. Working from home

Participant: Yes I am a workaholic

f. Complaining about work conditions

Participant: Yes I do

g. Exposing unfair practices in the workplace

Participant: No I don't

h. Reporting abuse at work

Participant: No, I don't.

i. Sharing of job related information

Participant: Yes.

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: Yes, at this institution.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: Stereotyping and perceptual bias.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree.

b. The satisfaction of gender sensitive customers.

Participant: I agree

c. Moderating of tempers in the workplace.

Participant: I agree

d. Increasing transparency in the workplace

Participant: Yes.
Researcher: Shall we proceed to section C which is about ICTs and gender equality
Participant: Yes
Researcher: Please comment on each of the following indicating whether you agree or disagree that:

- a. ICTs can increase flexibility at work reducing male and female absenteeism
Participant: Yes I agree
- b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency
Participant: Yes I agree
- c. ICTs can reduce workloads enhancing men and women's job satisfaction
Participant: Yes I agree
- d. ICTs can increase flexibility reducing male and female employee turnover
Participant: Yes I agree
- e. ICTs can increase awareness of both men and women employee rights
Participant: Yes I agree
- f. ICTs can give men and women a voice through anonymous and confidential communication
Participant: Yes I agree.
- g. ICTs can expose unfair practices against men and women in the workplace
Participant: Yes I agree

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?
Participant: No, thank you.
Researcher: Thank you.

Transcription of interviews

Interview Blueprint

Participant T

Researcher: Good day, how are you?

Participant: I am fine thank you

Researcher: My name is Ivy Mbengo and thank you for your time, for participating in this research, and for this interview. This study is about the role of ICTs in promoting gender equality in the workplace especially at a higher education institution. This study will not only benefit me, but employees in South Africa by adding to knowledge and what has been studied before. If you feel uncomfortable in answering a particular question, please don't answer and if at any point you feel like withdrawing from this conversation, you are free to do so. Should I proceed with the interview?

Participant: Yes

Researcher: I will start with Section A which requires personal information and the perceived use of ICTs which you may tick on an answer of your choice as I ask you a question.

Participant: Okay thank you.

Researcher: Shall we proceed to section B which is the assessment of gender diversity and equality.

Participant: Yes let's proceed.

Researcher: To the best of your knowledge are women and men afforded equal opportunities at this institution in the practical sense? Please give reasons to support your answer.

Participant: Yes I haven't felt that I haven't ben, I have never felt discriminated against. I believe in being promoted according to what you do. I haven't applied to be an HOD, but rather a researcher.

Researcher: Do you believe you deserve a promotion?

Participant: No I am retiring soon

Researcher: Do you use ICTs for...?

a. Receiving or disseminating employee rights information

Participant: Yes I do

b. Training and development

Participant: Yes I do

c. Job tasks

Participant: Yes I do

d. Communication

Participant: Yes all the time

e. Working from home

Participant: Yes I do

f. Complaining about work conditions

Participant: Very rarely

g. Exposing unfair practices in the workplace

Participant: No I don't I try to expose unfair practices by word of mouth

h. Reporting abuse at work

Participant: No I don't

i. Sharing of job related information

Participant: Yes I do

Researcher: To the best of your knowledge are female employees fairly represented in top managerial positions at this institution? Please give reasons to support your answer.

Participant: I can only talk about our faculty, I don't know if it's because women don't apply for these top positions or not. It could be for a number of reasons. There are a lot of research positions and there are choices, so as a woman I would rather do what I love. We do have a couple of females with top positions though.

Researcher: In your opinion what factors can influence gender inequality at this institution?

Participant: I think when you have all systems and protocols in place. As I have mentioned women are not given enough opportunities to prepare themselves for these top positions, but we are heading in the right direction, many women are advancing.

Researcher: Please comment on each of the following indicating whether you agree or disagree that gender diversity can improve organisational performance through:

a. The availability of gender sensitive skills.

Participant: I agree also I have picked up in the classroom that if I put my students in groups, I usually notice that it's a female who will be busy writing up notes and the males just sitting there. I ask my students, "is she your secretary?" Where I used to teach, when I travelled I was the only lady and I noticed all the guys always asked if they could use my report then I would say NO! There is no lady's job, you should train your thinking as a person and it starts at home. You should teach your children that both men and women are equal. Of course a man must provide, but that is not the reality anymore. We have to do everything. What if your husband dies and you are not educated or you can't look after yourself? I have trained my daughters to be independent.

b. The satisfaction of gender sensitive customers.

Participant: No

c. Moderating of tempers in the workplace.

Participant: No

d. Increasing transparency in the workplace

Participant: Transparency is a problem because as academics we don't really talk about our problems unless this culture is promoted in the department. In some departments processes or procedures are not transparent and staff hear about decisions taken only later. This is problematic especially in departments where the lack of transparency leads to perceptions that there is favouritism or that HODs have different sets of rules for different people.

Researcher: Shall we proceed to section C which is about ICTs and gender equality

Participant: Yes we may proceed

Researcher: Please comment on each of the following indicating whether you agree or disagree that:

a. ICTs can increase flexibility at work reducing male and female absenteeism

Participant: Yes I agree, I prefer if my students email me most of the time.

b. ICTs can enhance men and women's knowledge and skills through training and development increasing their job competency

Participant: Yes I agree

c. ICTs can reduce workloads enhancing men and women's job satisfaction

Participant: Yes I agree

d. ICTs can increase flexibility reducing male and female employee turnover

Participant: Yes I agree

e. ICTs can increase awareness of both male and female employee rights

Participant: Yes I agree

f. ICTs can give men and women a voice through anonymous and confidential communication

Participant: Yes I agree

g. ICTs can expose unfair practices against men and women in the workplace

Participant: Yes I agree

Researcher: Thank you so much for your participation this is the end of our interview, before I go, do you have any questions for me?

Participant: No, thank you and all the best with your research.

Researcher: Thank you.

