GENDER IMBALANCE: A FOCUS ON SENIOR MANAGEMENT POSITIONS IN THE IT SECTOR IN SOUTH AFRICA

by

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DECLARATION

I, Yo-Ann Louw-Harmse, declare that the contents of this dissertation/thesis represent my own unaided work, and that the dissertation/thesis has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

Signed   **Date**

ABSTRACT

Women in South Africa are under-represented in senior management positions in the Information technology (IT) sector — even with available incentives and directives to rectify the situation. The purpose of this research is to explore and understand the reasons for the imbalance in representation of women in senior management positions in the IT sector in South Africa.

Seventeen women in middle to senior management positions from two of South Africa's nine provinces — Western Cape and Gauteng — were interviewed for this study. The women were asked to relate their personal experiences and perceptions around organizational culture in IT environments and factors influencing their career advancements. A qualitative content analysis method was used to analyse the responses from the interviews.

The findings of this study confirm the imbalanced representation of women in senior management positions. It was found that organizations are open and welcoming and provide opportunities to women, but women in the IT sector do not necessarily desire to advance to senior management positions. Factors such as the legacy in the IT industry where men held senior positions, career interruptions due to child bearing, and the absence of female mentor's impact on the career advancement of women. The informal recruitment process for senior manager positions and the lack of emphasis on the need for women in IT when advertising senior management positions worsen the situation. Women lack self-confidence and are of the opinion that their skills set must be an exact match to the job requirements before applying for senior positions. Work life balance is not supported in the IT environment and no development programs aimed specifically at women are available. The paucity of women taking up technical careers — such as IT — limits the number of women available to develop and appoint in senior management positions.

Guidelines for women to advance to senior positions and for companies to recruit and hire women are proposed. These guidelines will assist to correct the imbalance representation of women in senior management positions and promote IT as a career for women. A suggestion for future studies is to compare career advancement of women working in the software development environments, compared to women in the infrastructure and technical environments of IT, as well as those who have left the IT industry.

Keywords: networking, organizational culture, career choices, self-confidence, dominance of men, studies, soft skills, self-awareness, ambition, male characteristics, female characteristics, responsibility, technical skills, stereotyping, training, ambition, and experience.

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DEDICATION

Dedicated in loving memory of my Mum,

Mrs **Sophia Elizabeth Louw**

You taught me never to give up

And that everything is possible if I apply my mind to it.

This is for you.

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GLOSSARY

Acronyms/Abbreviations	Definition/Explanation
AA	Affirmative Action
BWSA	Businesswomen Association of South Africa
CEO	Chief Executive Officer
CIO	Chief Information Officer
EE Act	Employment Equity Act
eBay	American multinational corporation and e-commerce company
ICT	Information and Communications Technology
IT	Information Technology
JSE	Johannesburg Stock Exchange
STEM	Science, Technology, Engineering and Mathematics
Yahoo	American multinational Internet corporation

CHAPTER ONE

INTRODUCTION TO THE RESEARCH STUDY

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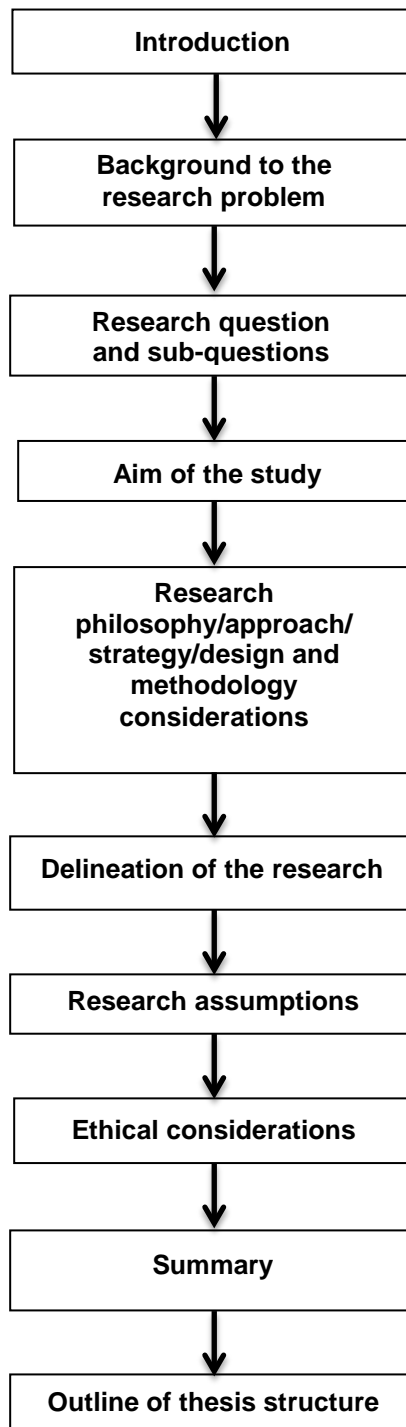
Figure 1.1: Graphical representation of Chapter One

1.1 Introduction

An international overview of women in senior management positions shows that, even after 30 years of equality legislation in western countries, women in decision making positions are still under-represented, especially in the Science, Technology, Engineering and Mathematics (STEM) industries (Catalyst, 2014). Grant Thornton's International Business Survey Report (2013) reveals that the number of women in senior management positions have increased, but not sufficiently. It is found that globally one in five senior management roles are held by women, similar to what they observed in 2004. Fewer than one in ten businesses have a female CEO. Although businesses recruit male and female graduates in almost equal numbers, the proportion of women in top positions around the world is generally very low (Clark, 2009). In South Africa, for example, the proportion of women on the boards of companies listed on the Johannesburg Stock Exchange (JSE) has more than doubled since 2004, yet they still represent less than one in six of all board members. The Businesswomen's Association of South Africa (BWASA) finds that males are still dominant in senior management and board level positions (BWASA, 2011).

The South African secondary and tertiary education system allows equal opportunities for males and females to be trained in the IT industry, thus increasing the overall skills pool. However, it appears that this is not enough to close the gender gap in management positions in the IT sector (Desvaux, Devillard & Sancier-Sultan, 2010). Judicial and other interventions, together with legislative directives such as the Constitution of South Africa, the Employment Equity Act 55 of 1998, and Gender Policy Framework has led to progressive empowerment and to advancement of women's rights. Yet it does not appear to be effective, as women in senior management are still under-represented in South Africa (BWASA, 2011).

Growing the number of women in senior management positions must be a high priority in all organizations. Trauth, Quesenberry and Yeo (2008) report that gender imbalance in the boardroom can be detrimental to the growth prospects of a business. Businesses with a greater proportion of women on their boards outperformed rivals in terms of returns on invested capital, and having at least one female board member reduced the chances of a business going bankrupt by 20%. While employment in the ICT sector in Africa has continued to grow significantly over the past years, the growth in employment has not led to an increase in females in the sector, particular at senior levels (Tandon, 2012). In a South African context, problems such as the decline in employment of women at entry level, de-motivation, low retention, and lack of promotion for women are linked to the imbalance of women in the ICT sector (Tandon, 2012).

1.2   Background to the research problem statement

The South African Constitution provides a vehicle for legislative and judicial intervention to promote the progressive empowerment of women. South African women receive protection and certain rights that are guaranteed in the Constitution of 1996, and more specifically in section 9, entitled "Equality". It reads, inter alia: "The state may not unfairly discriminate directly or indirectly against anyone on one or more grounds, including race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language, and birth" (South Africa, 1996). No unfair discrimination based on any feature of being a woman will be tolerated in South Africa. Great strides are being made with gender equality, but gender discrimination still takes place in the workplace. Although there are exceptions of women who are employed in senior management positions, they are still poorly represented in top managerial and executive positions country-wide (Bheki, 2011).

The workforce of South Africa comprises 46% women, but this is not reflected in the leadership make-up of companies. The annual Commission for Employment Equity report for 2013-2014 shows that despite the 46% women in the workforce, a disappointing 20.1% of senior management positions are filled by women in South Africa. This figure has been shown to be stagnant over the past five years (Grant Thornton International Business Survey Report, 2013). South Africa lags behind countries such as France, Spain and Switzerland, where women represent 40% of executive positions in companies (BWASA, 2011).

Under-representation of women at senior levels is also evident in the Information Technology (IT) sector. A review of the CIO directory reveals that of the 200 top IT decision makers in South Africa, fewer than 20% are female (Hinchcliffe, 2014; 2013; 2012). Compared to the required 30% women in decision-making positions stipulated in the South African Gender Policy Framework (South Africa, 1998), the IT sector still lags behind.

The Research problem statement

Women in South Africa are under-represented in senior management positions in the IT sector, despite available incentives and directives to rectify the situation.

1.3   Research questions and sub-questions

The research questions, research sub questions, the methodology used to answer the question, and the objective of the question.

1.3.1 Research question 1 and sub-questions

Table 1.1: Summary of research question 1, sub-questions and objectives

Research problem		Women in South Africa are under-represented in senior management positions in the IT sector, despite available incentives and directives to rectify the situation	
Research Question 1		What are the reasons for the under-representation of women in senior management positions in the IT sector?	
Research sub-question no.	Research sub-question	Methodology	Objective
RSQ1.1	To what extent are women still under-represented in the IT sector in SA?	Semi-structured interviews	To determine the extent to which women are under-represented in SA.
RSQ 1.2	Why are women under-represented in senior management positions in IT in SA?	Semi-structured interviews	To determine the reasons why women are under-represented in senior management positions in IT in SA.
RSQ 1.3	How does organizational culture impact women's advancement to senior management positions?	Semi-structured interviews	To determine the impact of organizational culture on the advancement of women's careers.
RSQ 1.4	What strategies have IT organizations implemented to advance women to senior management positions?	Semi-structured interviews	To determine the strategies implemented by IT organizations in SA for career advancement for women.

1.3.2 Research question 2 and sub-questions

Table 1.2: Summary of research question 2, sub-questions, and objectives

Research problem		Women in South Africa are under-represented in senior management positions in the IT sector, despite available incentives and directives to rectify the situation.	
Research Question 2		How does the recruitment process for senior management positions affect the imbalances of women in IT?	
Research sub-question no.	Research sub-question	Methodology	Objective
RSQ 2.1	What are the reasons why females are not successfully appointed in senior management positions in IT?	Semi-structured interviews	To understand the reasons why females are not successful in their application for senior management positions in IT.

RSQ 2.2	How do organizations recruit for senior management positions?	Semi-structured interviews	To understand the recruitment process for senior management positions in IT.
RSQ 2.3	What impact do female networking patterns have on the recruitment of women for senior management positions in IT?	Semi-structured interviews	To understand the impact that women's networking patterns have on the recruitment process.
RSQ 2.4	What is the impact of career choices of females on the imbalance in representation of women in IT?	Semi-structured interviews	To understand the impact female career choices have on the imbalanced representation of women in IT.

1.4   Aim of study

The aim of the study is to explore the under-representation of women in senior management positions in the IT industry in South Africa, as well as the contributing factors that impact this phenomenon. This exploratory study is aimed at gaining a deeper insight into previously identified barriers and new factors that impact and constrain women from advancing to senior management positions in the IT sector. The outcome of this research will be used to provide valuable information and to propose guidelines in order to assist organisations to build strategies for the employment of women at senior level, and thus to promote IT as a career for women in government and IT recruitment companies.

1.5   Research methodology

1.5.1 Research philosophy

Research is underpinned by certain philosophical assumptions which show a definite way in which the world is viewed and understood (Saunders, Lewis & Thornhill, 2009). There are three forms in which the philosophy of research is represented, namely ontology, epistemology, and axiology. By seeking out the truth through various means of experimentation, investigation, observation, and comparison, research aims to contribute to the body of knowledge (Bhattacherjee, 2012). The philosophical concepts that support the research study are limited to the ontological and epistemological aspects of research.

1.5.1.1 Ontology

Ontology is concerned with the interpretation of the nature of reality (Neuman, 2011). It represents a study of the actuality and life within the concept of reality. Interpreting the nature

of reality, and attaining clarity on comprehensible forms of reality, under the assumption of how the world functions in relation to each particular view point, can be of a static nature or a constant change (Bhattacherjee, 2012). Objectivism and subjectivism are the two concepts that influence an ontological stance of research. Ontologically, the researcher is taking a subjectivist stance as this study focused on the meaning of social phenomena rather than its measurement (Holden & Lynch, 2004).

1.5.1.2 Epistemology

Epistemology is the understanding and knowledge of what the world is about and what truth is developed from its essence (Neuman, 2011). It involves what is needed to produce knowledge about the truth. Epistemology is concerned with the ways we go about acquiring knowledge in the world (Bhattacherjee, 2012). The three epistemological views used in conducting research are Positivism, Interpretivism and Critical Realism (Orlikowski & Baroudi, 1991; Wahyuni, 2012). An interpretivist epistemological stance was taken in this study where the researcher acknowledges the different views of interviewees in a social setting without abstractions. In order to capture the richness and depth required to understand the factors that influence the imbalanced representation of women in senior management positions, an interpretivist approach has been taken in analysing why women in IT are not equally represented at senior management level.

1.5.2 Research approach

According to Saunders *et al.* (2009), the two types of approach directing the research path to be followed are deductive or inductive. A deductive approach is concerned with building a theory with hypotheses and striving to test the validity thereof. An inductive approach, on the other hand, focuses on collecting empirical evidence and building a theory from the findings (Creswell, 2009).

1.5.2.1 Inductive

The research philosophy of the study is subjective in nature and an inductive approach was followed. The inductive approach strives to develop a theory from the results of the analysed data obtained (Saunders *et al.,* 2009). From the data collected during this research, the reasons for the imbalanced representations of women in senior management positions in the IT field are established. The inductive approach is followed, using a qualitative method of research, to build upon theories previously identified, or to create new ones by surmising from patterns evolved from the observed findings**.**

1.5.3 Research strategy

Saunders *et al.* (2009), identified the main research strategies as interviews, survey, case study and experiment. The research strategy followed in this study was interviews with semi-structured questionnaires. Miller and Glassner (2009) describe an interview is an interactive relationship between an interviewer and the interviewee. It examines paradigms of experience and knowledge that the participants have of the phenomena being studied subjectively in the context of the research study. Primary data for this research was sourced from interviews conducted with 17 women working in different IT organizations in South Africa to explore their perceptions and experiences of working in an IT environment. The study included semi-structured questionnaires serving as an interview guide. Semi-structured questions were asked about each participant's experiences and perceptions around organizational culture and factors influencing their advancements to senior positions. Given the sensitive nature of the information, it necessitated face-to-face interaction.

1.5.3.1 Data collection

The data required for this survey research was collected from women currently working in the IT sector.

The Units of analysis

The unit of analysis for this research is women in management positions within IT organizations and IT departments within organizations in the Western Cape and Gauteng regions in South Africa. For the purposes of the study, management positions are defined in the following ways:

- Having a significant leadership role within the organisation;
- Having control over the day-to-day operations;
- Having decision-making powers; and
- Usually, but not necessarily, reporting directly to the board of executives or directors.

Sampling techniques

The sampling technique used is based on a non-probability sampling method for qualitative research. This sampling approach provides different techniques to select a sample based on subjective judgment (Saunders *et al.,* 2009). The purpose of sampling techniques is to reduce the cost and/or the amount of work that it would take to select all samples of an entire target population for a research study using an appropriate sampling method (Bhattacherjee, 2012). Because of the exploratory and descriptive nature of the research which require an in-depth knowledge of the research problem, a total of 17 women were selected as subjects for investigation to attain the data saturation level required for the research in the context of the

phenomena being studied (Yin, 2009). In this study purposive sampling, followed by snowball sampling techniques, were applied. Purposive sampling enables the researcher to use own judgement to select respondents that are best able to answer the research questions. Participants were then asked for references to other women who met the criteria and might be willing to participate in the study. Such snowball sampling was selected based on Tsvetovat and Sharabati's (2006:24) description that "communication spreads easily in small social networks and it helped the researcher to get in touch with the participants although they are not known to the researcher beforehand".

1.5.3.2 Data analysis

Data analysis refers to the drawing of conclusion from raw data (Wahyuni, 2012). Kvale and Brinkmann (2009) describe transcribing as the initial step in data analysis. All interviews were recorded with the participants' permission and transcribed in full in MS Word format. Qualitative data can be analysed using a simple thematic coding system. This requires reading through all data extensively, summarising all of the data collected, noting all the similarities that occur in the data, grouping key concepts into themes, and identifying key themes according to their appearances in groups (Thomas, 2003). As the data was analysed, keywords were identified from the interview extracts and captured in a spreadsheet. Frequently mentioned words were grouped together to form a coding scheme according to similarity in meaning and interpretation. Categories were identified by the number of occurrences and frequency, and relating categories with similar interpretation and representation were further grouped into different themes either of similar or recurring nature.

1.6   Delineation of the research

South Africa is divided into nine provinces. This study was limited to interviews in the Western Cape and Gauteng provinces. Due to money and time constraints it was not possible to interview candidates from the other seven provinces. The participants in the study are women in junior, middle, and senior management positions currently employed in the IT sector. The study did not include the opinions of those who have left the IT sector, males, junior employees within the IT sector, or young people considering IT as a career option.

1.7   Research assumption

For this research it is assumed that many companies discriminate against women for senior management positions in IT. It is further assumed that women are ambitious and aspire to senior positions in IT.

1.8   Ethical considerations

The most important consideration when doing research is confidentiality and informed consent (Kelley, Clark, Brown & Sitzia, 2003). Prior to commencement of this study, confidentiality and anonymity were assured verbally and in a letter of consent to participants. All aspects of the study were clearly stated before commencement of the interviews. This action assisted in establishing a trust relationship with the participants, thus creating an enabling environment to deliver open and honest responses during the interview. Ethical rules such as confidentiality and anonymity were adhered to in order to promote values such as trust, accountability, and respect that are important to collaborative work.

1.9   Summary

Women in senior management positions in IT are a contentious issue. From the literature and documents reviewed it seems that women are not equally represented at senior management level within companies. The research aimed at exploring reasons as to why women are not represented on an equal basis. The research problem is:

> **Women in South Africa are under-represented in senior management positions in the IT sector, despite available incentives and directives to rectify the situation.**

Two main research questions were posed:

> 1. What are the reasons for the under-representation of women in senior management positions in the IT sector?
> 2. How does the recruitment process for senior management positions affect the imbalances of women in IT?

A subjective, interpretivist research methodology was followed with an inductive research approach to support the ontological and epistemological stance. Interviews were the research strategy, with women in senior IT management (17) as the unit of analysis. Data was collected using semi-structured questionnaires. Data analysis was done by transcribing all interviews, identifying keywords, summarising and then categorising the keywords. From the summary a thematic analysis were done. Care was taken to relate every step of the procedure to the research question and research sub-questions. All ethical considerations were adhered to.

1.10 Outline of thesis structure

Chapter One: Provides an introduction to the research problem. The background to the research problem statement is presented and the research questions and sub-questions are formulated, followed by a description of the methodological considerations. The ethical considerations are established and the research assumptions and delineation are given.

Chapter Two: Existing literature is reviewed in Chapter Two, covering *inter alia* barriers for advancement to senior positions, impact of corporate cultures on the problem, mentorship and coaching, recruitment processes for senior management positions in IT, and networking patterns.

Chapter Three: Presents the research design and methodology of the study. It provides an overview of the philosophical assumptions, paradigms, and research approach. It describes the process of data collection, methods, and analysis strategies employed.

Chapter Four: Presents profiles of participants. Findings that emerged from the interviews are analysed and presented.

Chapter Five: This chapter presents and discusses emergent themes from the categories of data. The research findings are discussed in relation to literature and research questions as stated in Section 1.3, and answers to the research questions are provided.

Chapter Six: Resulting conclusions and recommendations are based on research study objectives. Limitations of the research study and recommendations for future research are provided. The chapter concludes with a reflection on the research journey.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Leadership and women

Women in IT management

The role of government in gender equality

Recruitment and hiring practices

Factors influencing women to select IT as a career choice: 1. Social factors 2. Organizational factors

Networking and the impact it has on the under-representation of women in IT

Conceptual framework

Summary
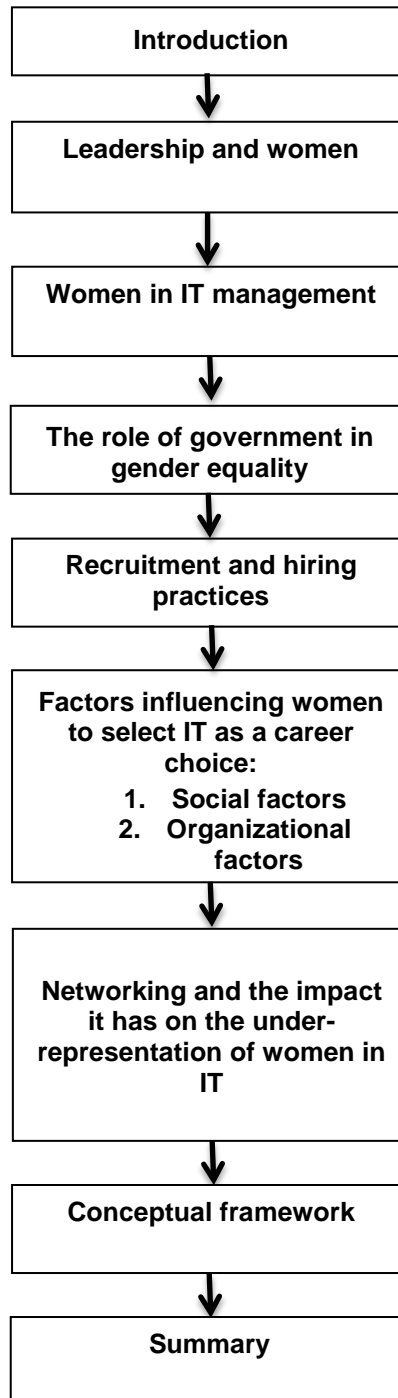
Figure 2.1: Graphical representation of Chapter Two

This chapter describes the theoretical background to the study by examining literature on the under-representation of women in senior management positions in IT. The perception of women as leaders and their leadership styles are discussed. Women in IT management and their contribution are highlighted. The role of government in gender equality and promoting IT as a career option for females are addressed. Recruitment and hiring practices and the effect it has on the phenomenon are discussed. Lastly it considers the factors influencing women's career choices and the impact networking has. The chapter concludes with a conceptual framework.

2.1 Introduction

The IT industry is seen as a sector where innovative thinking produces advanced new technologies and money-spinning products. However, when it comes to opportunities for women to advance their careers into senior management, it lags behind other sectors (Simard, Henderson, Gilmartin, Schiebinger & Whitney, 2009). Significantly higher proportions of men than women hold senior management or executive positions. Although women at the mid-level of their careers are deemed very valuable to companies, it is at this level of their career that women face the greatest barriers to advancement. This comes at a cost for both the individual women and their employers (Simard *et al.,* 2009*).*

The literature advances several explanations and theories on why women encounter obstacles to managerial positions within IT, and why they lag behind their male counterparts (Shah, 2011; Tlaiss, 2010; Desvaux *et al.*, 2010; Parostam, 2010; Simard, 2010; Johnson, 2010; Shortt & Neill, 2009). Shah (2011) concludes that the computing field is still perceived as male-orientated, regardless of the progress women have made over the years. Discriminatory organizational cultures, where men are favoured, are contributing to the under-representation of women in the IT environment (Tlaiss, 2010). Desvaux *et al.* (2010) describe the "double burden" syndrome, where work and domestic responsibilities are combined as a main contributing factor to the phenomenon. Stereotyping is classified as the number one barrier for women in IT (Simard *et al.*, 2009). Women are stereotyped as "family focused" and "unwilling to travel", and are therefore more likely to be skipped for promotions. Obstacles that female managers face are both structural and psychological, including cultural, educational, legal, and social barriers. Exclusion from social networks, as well as a lack of role models and mentors are all barriers for women in IT (Simard, 2010; Shortt & Neill, 2009). Strong network ties build social capital and are important to career advancement. Women have fewer opportunities to network and therefor do not advance as quickly in their careers as their male counterparts (Johnson, 2010). Women in IT are often caught between family responsibilities and being a devoted worker (Simard, 2010). In IT

companies it is often expected to be constantly available, to work late, and increase productivity. When the demands of family life are conflicting with work responsibilities, women are involuntarily required to choose between work and family (Simard, 2010). Organizational structures, such as policies and practices, contribute to women's inability to advance to leadership positions. Many organizations are structured around men's work and life styles (Desvaux *et al.*, 2010).

2.2   Leadership and women

Historically, jobs whereby the workforce aspire to successful careers, were built around an individual with a clear commitment to *work*, without other responsibilities that would impact the time he could dedicate to employment. Most jobs are not designed to be combined with other responsibilities such as child care, managing a household, and the duties that fall on the shoulders of women in many households (Demaiter & Adams, 2009). Most women have to toggle between home and workplace daily — with each environment having a different logic, association, and time rhythm. Men's ability to focus on the organized, corporate world are often made possible by the effort of women in the workplace and at home (Lewis-Enright, Crafford & Crous, 2009). Women ensure that the family members are fed, clean and clothed, see that messages are taken, appointments made and kept, etc.

Historical perceptions hold that men are a more natural fit for top leadership positions than women — which can clearly be detrimental to women for advancement into senior management positions (Simard, 2010; Clarke, 2009; Eagly & Karua, 1992). Men are seen to be more promotable than their female colleagues, although there are no differences in performance ratings between the genders (Sumner & Werner, 2001). Women are stereotyped as not being suitable for technical positions, and that they are more interested in the overall view than in technical details (Simard, 2010). Previous studies view stereotyping as a major contributor to imbalanced representation of females at senior management positions (Appelbaum, Asham & Argheyd, 2011; Johnson 2010; Simard 2010). Stereotyping portrays women as lacking in the qualities generally associated with effective leadership, thus generating the erroneous perception that women don't weigh up to men when it comes to leadership (Johnson, 2010). Appelbaum *et al.* (2011) argue that leaders are seen as dominant and ambitious, qualities that match male stereotypes. Qualities associated with female stereotypes, such as friendliness and sensitivity, are considered less important to leadership. These stereotypes cause women to be seen as less fit for leadership positions than men. Experts argue that due to stereotyping, women's leadership skills are underestimated and underutilized in organizations, and that these limit women's opportunities for advancement to senior management positions (Foust-Cummings, Dinolfo &

Kohler, 2011; Simard, 2010). As Simard (2010:14) puts it: "Leadership and success have been construed in terms of 'command and control' and autocracy, styles that are thought of as stereotypically masculine. This limits women's opportunities for career advancements".

In a report for Mckinsey and Company by Desvaux *et al.* (2010) the leadership patterns of women are identified. Female leaders have a gentler use of power, have a greater interest in empowering others, a more democratic approach with greater sharing and participation, and more information and communication in general. Women are more focused on long-range results and have more concern for, and interest in, the individuals they lead (Johnson, 2010). Men are viewed as prototypical leaders, therefor women's leadership behaviours are measured against a masculine leadership norm (Simard 2010). Women's leadership style are labelled as different from the leadership norm; according to Simard and Gammal (2012) there is a misconception that leadership potential is not forthcoming in women and that their behaviour is different from male leaders in ways that are not advantageous to themselves or their organisations. Several studies identified barriers to gender diversity in top management (Wentling & Thomas, 2014; Kenexa, 2013; Shah, 2011; Desvaux *et al.*, 2010; Tlaiss, 2010; Shortt & Neill, 2009). The first of these barriers is the "double burden" syndrome where work and family responsibilities are combined (Desvaux *et al.*, 2010). The second barrier is the "anytime, anywhere" performance model whereby people must be available 24/7 and have greater geographical mobility (Desvaux *et al.*, 2010; Shah, 2011). A third barrier identified by female leaders was women's lack of confidence when required to sell and promote themselves (Kenexa, 2013). Other barriers identified are the lack of mentors (Tlaiss, 2010), sponsorships, and role models for women (Shortt & Neill, 2009). These are all factors that are important for climbing the corporate ladder (Simard, 2010; Shortt & Neill, 2009). According to Johnson (2010) the critical factors that determine whether women will advance in their careers are their competence, outcomes, relationships, and endurance.

There are strong positive correlations between women's representation in senior positions and the financial performance of companies (Kenexa, 2013; Catalyst, 2012). Kenexa (2013) reports that Fortune 500 companies with three or more women in board positions perform above average financially. Having more female board members can bring much more value to a management team because diversity drives results. Catalyst (2012) explains that a possible reason for the positive performance difference lies in how women exercise leadership. Some leadership behaviours, observed more frequently in women than in men, positively influence organizational performance. Therefore it can be said that complementary and mixtures of leadership styles make a difference in companies' performance (Catalyst, 2012). Other benefits identified by having diversely gendered senior levels are a more civilized boardroom culture and better corporate governance (Catalyst, 2012). As almost fifty

percent of the workforce in companies is represented by women, it makes sense for businesses to consider both halves of their talent pool to stay competitive (Wentling & Thomas, 2014). Having a well-diversified workforce, especially at board level, reflects well on a company. It demonstrates to clients and customers, of which many are women, that they are taken seriously and are well-represented. Companies with no or very few women in senior management positions tend to attract negative attention, which can negatively impact on their bottom-line (Shah, 2011).

2.3   Women in IT management

The dominant ratio of males to females in senior management positions in the IT industry has been studied for many years (Appelbaum *et al.*, 2011; Simard, 2010; Sumner & Werner, 2001; Eagly & Karua, 1992). Eagly and Karua (1992) conclude the under-representation of women in senior positions in IT is due to stereotyping. These stereotypes see men as a more natural fit for top leadership positions and being better at technical work. Sumner and Werner (2001) pin the under-representation of women in IT on the obstacles women have to endure in the technical environment. Simard (2010) explain the under-representation of women in IT is due to the shortage of women graduating with degrees in technical fields. Appelbaum *et al.,* (2011) say women's lack of self-confidence (which leads to a self-imposed physiological barrier) and the retention issue of females in organizations, are factors influencing the under-representation of women. There is still a perception that men are superior at computer work, and are better managers and leaders than women (Catalyst, 2014). Women are seen as computer users rather than developers, systems analysts, or IT managers. Women are valued less in technical careers and are considered to be a better fit for office administration and soft skills like marketing or secretarial work. In short, women are considered inferior in intellect and capability (Simard & Gammal, 2012). However, research reports maintain that gender-diverse leadership generates strong business results (Tandon, 2012; Desvaux *et al.*, 2010). According to Desvaux *et al.* (2010) companies with more females in their decision-making levels show better financial performance. This is supported by Tandon (2012:10), finding that "there is a link between women in leadership positions and business performance. Studies have shown a direct positive correlation between gender balance on top leadership teams and a company's financial results". Women do more and better work than men in organizations with gender diversity (Simard, 2010). Having women in an organization brings different life experiences and perspectives to the innovation process. Diversity in the innovation process will lead to greater variety of products and services that appeal to all customers (Simard & Gammal, 2012). The absence of women in technology can mean a loss of opportunities for businesses as well individuals, but most of all, a loss of talent. Having participation from a diverse group of people can bring together a wide range of

experience, minds and backgrounds that can inspire creativity and resilience in IT design (Tandon, 2012).

The under-representation of females in IT has a direct impact on the lack of female mentors and role models (Tlaiss, 2010). Women are typically disappointed with the lack of mentors and role-models for support from their own genders (Simard & Gammal, 2012). Foust-Cummings, Sabattini and Carter (2008) identify the lack of women as role models, mentors and sponsors in technology as a constraint. Women are worse off than men at finding same-gender mentors due to the limited number of females in senior positions (Tlaiss, 2010). Johnson (2012) highlights the importance of mentorship and coaching that women provide as a way of facilitating advancement in organisations. Mentoring involves a senior manager working with the protégé in the same organization to assist with career and professional development (Trauth & Hall, 2009). Career development involves enhancing the protégé's technical and management skills that can assist with career advancement. Soe and Yakura (2008) suggest that mentoring processes should be an integral part of organizational practises, and highlight the importance of having organizational support for this process. Mentoring can assist with the advancement and retention of women in the IT sector (Linehan & Scullion, 2008).

Although some women have made significant contributions in computing history and continue to do so today, their names are simply not as well-known as men in computing (Shah, 2011). Meg Whitman, former CEO of eBay, and Erna Schneider Hoover, who invented a computerized switching system for telephone traffic in 1954, are among names who have made significant contributions to computing, but are not as well-known as their male counterparts. Marissa Mayer, CEO of Yahoo, announced her pregnancy on the same day as being appointed as CEO of Yahoo. This announcement gives new meaning to women looking for inspiring role models (Northman, 2012).

Women continue to play a significant role as leaders in the Technology industry (Shah, 2011). The benefits and progress that are made by utilizing women in technology are recognized around the world. Table 2.2 below shows the 10 most influential women in technology for 2014 that are celebrated for their contribution to the technology industry.

Table 2.1: The 10 most influential women in technology for 2014 (Source: adapted from Rediff Business, 2014:2)

Name	Top rank	Company	Designation
Marissa Mayer	1	Yahoo	Chief Executive Officer
Sheryl Sandberg	2	Facebook	Chief Operating Officer
Virginia Rometty	3	IBM	Chairwoman and Chief Executive Officer
Meg Whitman	4	Hewlett-Packard	Chief Executive Officer
Susan Wojcicki	5	Google	Senior Vice President, Ads & Commerce
Mary Meeker	6	Kleiner Perkins Caufield & Byers	Partner
Theresia Gouw Ranzetta	7	Accel Partners	Partner
Safra A. Catz	8	Oracle Corporation	President, member of the Board of Directors, and Chief Financial Officer
Esther Dyson	9	Airship Ventures, Evernote	Investor in many start ups
Kara Swisher	10	AllThingsD	Co-Executive Editor

2.4 The role of government in gender equality

Policies such as the Employment Equity Act (number 55 of 1998) and the implementation of Affirmative Action are in place in South Africa to redress disadvantages experienced by designated groups (such as women), but the extent of progress made by women in IT is still lagging. Lewis-Enright *et al.* (2009) state South African women are not benefiting from government policy and legislation, and that more needs to be done. The Employment Equity report for 2013 – 2014, published by the Commission for Employment Equity shows that the representation of females at senior management level has increased at a very slow pace over the past eleven years, and illustrates that there is a blockage for women to reach senior management levels.
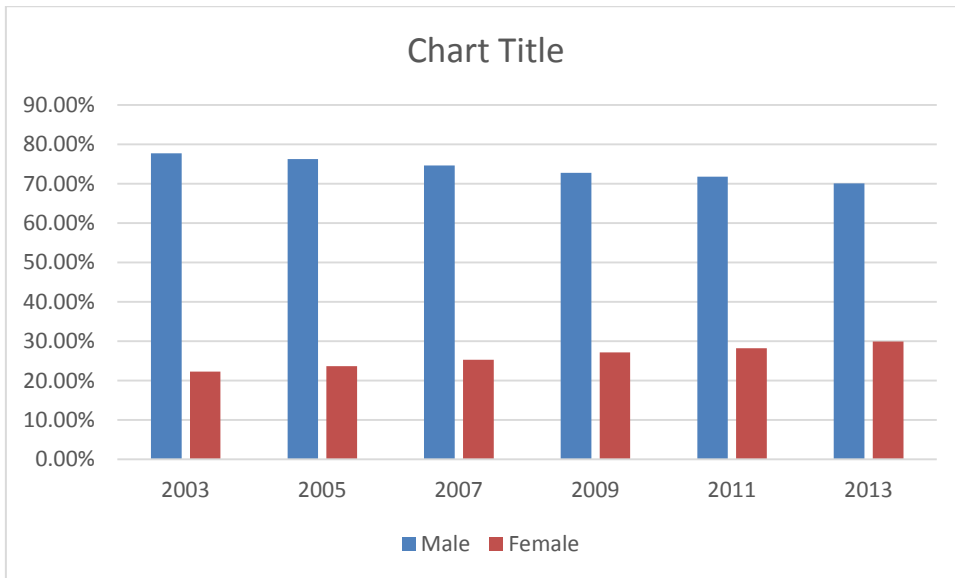
Figure 2.2: Gender distribution trends at senior management level from 2003 to 2013 (Source: adapted from Commission for Employment Equity Report 2013 – 2014:15)

Tandon's 2012 study shows that business leaders and policy-makers have a responsibility towards removing barriers to women's entry to the IT workforce and should implement practices and policies that will provide equal opportunities for women to advance to senior leadership positions within the sector. That author further argues that government has to ensure that IT skills are promoted in primary, secondary, and tertiary education by having a curriculum that complements the different levels and assists in promoting IT as an important, viable career opportunity for girls. The South African education system needs to ensure that students are aware of the constantly evolving nature of the industry and the need to keep on improving their skills set once they finish school (Tandon, 2012). In order for students to continuously improve on their skills, companies and government must work together to create opportunities for workplace experience (Lewis-Enright *et al.*, 2009).

Government can further assist by making more subsidies and funds available for technical training programmes. More investment is needed in on-the-job and in-serve training programmes, and government can play an imperative role in these initiatives. The South African Government realises that urgent attention must be given to the imbalance of females in executive positions in the ICT sector (Vorster, 2012). The Department of Communications consequently called for an ICT policy overhaul with regards to development and gender equality in 2012, and delivered the white paper in 2014. The policy aims to align with government's developmental goals and to address challenges in the ICT sector such as increasing the number of female executives and attracting young women in ICTs (Vorster, 2012).

2.5 Recruitment and hiring practices

The recruitment and retention of women at all levels in IT, including the absence of women in senior management and board positions, remain major issues (Simard & Gammal, 2012, Shortt & Neill, 2009; Linehan & Scullion, 2008). Simard and Gammal (2012) report constant growth in technical positions and that finding the right skilled IT professionals becomes more and more challenging. Shortt and Neill (2009) describe the shortage of qualified, experienced people in the IT sector as a major consideration in the recruitment of women in IT. The lack of willingness by companies to recruit women into senior positions is a cause of concern (Linehan & Scullion, 2008). Recruiting and hiring practice blind spots prevent companies from tapping into the full pool of available technical talents — including women. Organizations that are not open and welcoming to women in their environment can negatively influence the recruitment of women in IT. Having open recruitment processes can increase the number of women in leadership positions. Eagly and Carli (2007) report that openly advertising senior management positions, and making the criteria for the position transparent, can reduce the likelihood of men being selected for the positions. Simard and Gammal (2012) state that recruitment policies should be implemented to seek out potential leaders, based on specific requirements of the industry and the position in the industry. They are of the view that how a company advertises senior management positions and who they target in the advertising will define the candidates available for appointment to those positions. However, Simard (2010) argues that recruiting women is only one part of the efforts to increase the representation of women in senior positions. She suggests that organizations need strong retention and advancement practices to support the efforts of recruiting more women.

Companies should pay attention to how and to whom they advertise senior positions. This will shape the group of candidates that apply (Simard, 2010). Rubineau and Fernandez (2010) conclude that individuals tend to hire those who are like them. When evaluating candidates, interviewers tend to select those with similar educational and cultural backgrounds. It therefore results in a workforce of the same gender. The presence of women on hiring teams, committees, and searches is linked to a better likelihood of hiring female candidates (Simard & Gammal, 2012).

As gender equity remains a major problem in South Africa, recruitment companies should go to greater lengths to see that top women candidates are appointed to senior management positions in South African companies (Vorster, 2012). In this article Vorster states that a small pool of top women executives are being moved around like chess pieces with few new qualified candidates being brought into the corporate world. IT companies do want to fill senior positions, and require candidates with both excellent technical knowledge and

established management skills (Le Cordeur, 2014). He further comments that the shortage of supply is due to the fast pace at which technology develops, whereas a good leadership track record develops over a considerable longer period. Boards are looking for individuals with a track record of proven leadership over time, but candidates with technological proficiencies do not stay at one company long enough to build up such a track record.

2.6 Factors influencing women to select IT as a career choice

2.6.1 Social factors

Tlaiss (2010) concludes that the under-representation of females in managerial positions in IT may result from educational aspects and family characteristics, corporate cultures, or sociological factors. Parents are the role models in the division of labour, both in the household and in wider society. Therefore parental influence has a great impact on career selection and career paths (Shah, 2011). It is highlighted that young girls learn to be nurturers and caregivers, whereas little boys learn to be competitive and tough (Parsotam, 2010). As adults, these traditional gender roles may well be carried into the workplace. Shah (2011) found some women are taught a woman's place is at home, to marry and be homemakers, but circumstances may turn out to be different from what they expected and they enter the job market. Some women are reared with the belief that they could have a career, even when that career is in a predominantly male profession. In many ways mothers and teachers discourage girls from entering math, science, and computer fields. Parsotam (2010) argues that these actions discourage young women, and reinforce the perception that women do not belong in the IT field. This belief can be carried over into the workplace, further enforcing the male-dominated culture in IT.

2.6.2 Organizational factors

Many high-tech organizations do not reflect a corporate culture that is committed to increasing gender diversity (Wentling & Thomas, 2014). Workplace culture is the structure of an organization which is embedded in the values, beliefs, attitudes, practices, norms, customs and assumptions shared by the people in an organization (Tlaiss, 2010). Women choose to leave organizations in which the culture is not in line with their own values. Organizational factors negatively influence women's choice of, and persistence in, IT careers if they perceive the workplace to be an unwelcoming, male-dominated, hostile environment (Erin & Adams, 2009). It has become important to understand characteristics of the IT workplace culture, especially the workplace environmental factors that impact the career development of women in IT. Organizations should reflect a corporate culture that is committed to increasing gender diversity. Simard and Gammal (2012) report that unwelcoming organizational cultures harm the recruitment and retention of women in the

technical field. Linehan and Scullion (2008) suggest that networking is an important aspect of organisational life. Individuals who excel at networking generally excel within the organisations in which they operate.

2.7. Networking and the impact it has on the under-representation of women in IT

Linehan and Scullion (2008) describe networking as informal interactions, involving favours, persuasion, and connections to people who already have influence. Networking has become an important skill to manage career advancement. Women have a greater tendency to network, but may be networking for reasons other than career advancement. Durbin (2011) concludes that women join networks for skills development, to meet people that can help with their career advancement, and for social associates. Wang (2009) found that women joined networks to share their experiences, to have access to opportunities, connect with other professionals, back the advancement of women, and to acquire new friends. Men network for business and career benefits. Not all networks are always open or accessible to women (Durbin 2011). Previous research highlighted the difficulties for females of gaining access to male-dominated networks, and being available for networking because of other commitments (Wang, 2009; Linehan & Scullion, 2008; Foust-Cummings *et al.,* 2008). Foust-Cummings *et al.* (2008) say women are excluded from networks and, because they are in the minority, require wider networks for career advancement. Linehan and Scullion (2008) state that women do not having access to male networks. Since men continue to hold power in organizations the lack of effective networking is impacting career advancement for women. Women also have less time available to network due to other priorities and family responsibilities. Wang (2009) concludes that men will continue in their dominant status by excluding women from male networks. The lack of networking opportunities for women ultimately means less power for women in organizations. It is documented that women are excluded from "the old boys' network" that operates informally at higher levels in organizations (Wentling & Thomas, 2014; Durbin, 2011; Wang, 2009). The male-dominated culture of the "old boys' network" makes it difficult for women to feel accepted, which impacts women's self-confidence (Wentling & Thomas, 2014). Durbin (2011) describes the old boys' network as a group of men with similar background who have worked together for many years and who meet socially on a regular basis. It is very difficult for women to get access to this network since there are no prescribed joining criteria and is constructed on similarity — including the fact of being male (Durbin, 2011). Women constantly experience difficulty accessing the old boys' network, which impacts on career advancement (Wang, 2009).

Wang (2009) describe socialising at a bar after hours or playing golf while doing business as a way of networking. This can exclude women from informal networking and has been

identified as a stumbling block in women's career advancement. Durbin (2011:10) identifies three types of women networks,

> "1. Professional and occupational networks that bring women with similar professional qualifications together to swop out information and provide career guidance.
> 2. Company networks of which some are open to all women and some only to women at specific levels.
> 3. Training networks that have a specific professional training focus."

The lack of access to male networks is detrimental for women, and men continue to hold power in most organisations (McDonald, 2011). Women are not as well-integrated in organisational networks as males, and it is these networks which can impact promotion and acceptance in organizations. Many board jobs are not advertised in the conventional way, but are circulated through informal networking (Kenexa, 2013). More men are still in top positions and networks are dominated by men, therefore men hear about senior positions before women do and will distribute it to their networks (McDonald, 2011). In a study done by Rubineau and Fernandez (2010) it was found that male-dominated jobs are more likely to see male referrals, regardless of the gender of the referrer.

Desvaux *et al.* (2010) state that development programs with a specific focus on women can help to overcome the barriers women encounter as they advance to senior management positions. Having an environment that is conducive for women to develop and encourage them to advance their careers in a male dominating environment can greatly contribute to gender diversity (Desvaux *et al*, 2010). Clarke (2009) concludes that with the shortage of IT skills and experienced IT professionals, companies cannot overlook the potential that female development programs can have.

2.8 Conceptual framework

This section presents the conceptual framework underpinning this study. According to Wentling and Thomas (2014), a conceptual framework describes the scope to be studied, the key elements or variables, and the acknowledged relationship between them. The purpose of this study is to examine the obstacles and barriers women encounter in their careers, how these prevent them from advancing to senior management positions, and other factors that influence the under-representation of women. The study is informed by a theoretical approach based on organizational factors, hiring and recruitment practices, and the influence of sociological factors on women's advancement to senior management positions. Organizational culture determines the criteria for leadership and thus determines who will or will not be a leader (Shah, 2011). Recruitment and hiring practices are analysed to determine whether it is working to recruit women in senior management positions in IT organizations.

Trauth *et al.* (2009) suggest sociological factors may have an influence on the advancement of women to senior positions in IT. Therefore factors such as peers, family, and role models are evaluated to determine the impact it has on advancement of women to senior positions in IT. From the above, a conceptual framework is proposed (Figure 2.3).

Figure 2.3: Proposed conceptual framework

The proposed conceptual framework consists of three main factors being organizational, sociological, and hiring and recruitment practices. The three factors are presented as gears, with the relative sizes being indicative of the role each factor plays in the advancement of women in IT. The arrows show how the factors interrelate.

2.9 Summary

This chapter reviewed literature on the imbalanced representation of women in senior management positions. It started by reviewing the theories why women experience obstacles to managerial positions in IT. Male-domination in the IT field, discriminatory organizational cultures, and stereotyping are described as the main reasons. The perception of women in leadership positions and their leadership styles are discussed. Women's leadership styles are labelled as different from the leadership norm because it is measured against a masculine leadership style. This leads to the perception that men are a more natural fit for leadership positions. The chapter next discussed women in IT management and the influence they have on computing. Significant contributions, like the computerized switching system for telephone traffic were invented by women. Women are continuing to do so today, but unfortunately they are not as well-known as their male counterparts. The role government has to play in gender equality and promote IT as a career choice for girls was highlighted.

This was followed by reviewing recruitment and hiring practices and the challenges they face in the industry. Finding the right-skilled IT professionals, shortage of qualified, experienced people, and unwillingness of organizations to appoint women in senior positions was highlighted as the main challenges. Factors influencing women's decision to select IT as a career choice was discussed. Social factors and organizational factors, such as unwelcoming workplace cultures can negatively influence women's choice of IT as a career option. Lastly, networking and the impact it has on the under-representation of women in IT was discussed. The exclusion of women from informal networking has been identified as a stumbling block for women's career advancement. The chapter concluded with the conceptual framework that underpins the research study. The study is informed by a theoretical approach based on organizational factors, hiring and recruitment practices, and the influence of sociological factors on women's advancement to senior management positions.

CHAPTER THREE

RESEARCH METHODOLOGY

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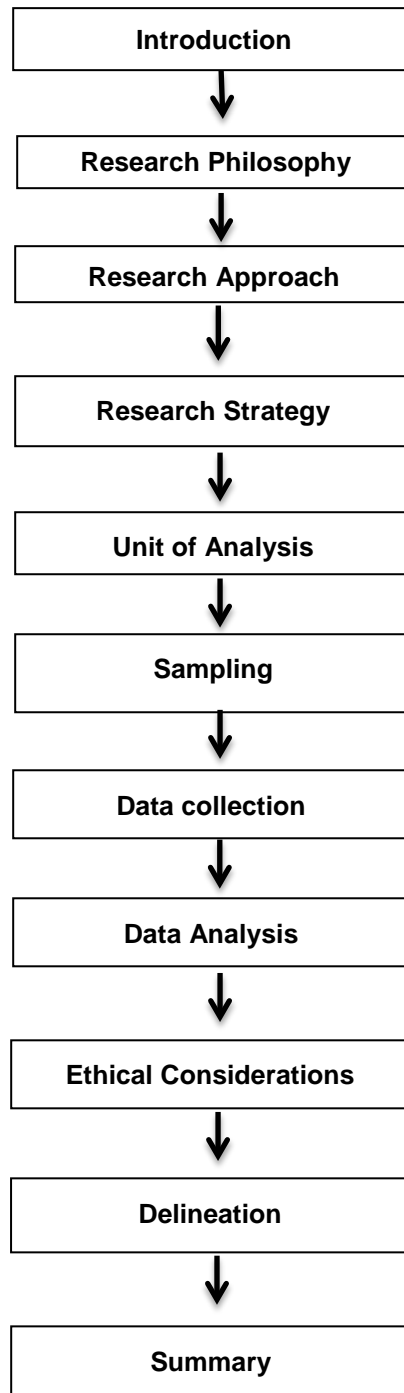
Figure 3.1: Graphical representation of Chapter Three

3.1 Introduction

The research philosophy, approach and strategy that form the basis for the choice of research design and methodology used in this study are presented in this chapter. The concepts and techniques associated with a qualitative study are discussed within the scope of the study. The chapter further reflects on the research design as well as the methods of primary data collection and sampling techniques that were used to select the participants and define the scope of the study. Methods used in analysing and presenting the findings are also discussed.

3.1.1 Research Philosophy

Research paradigms are divided into two main philosophical dimensions, namely ontology and epistemology. Ontology is described as the view of how a person perceives reality (Saunders *et al.*, 2009). Burrell and Morgan (1979:1) say ontology relates to the nature of reality; what things, if any, have existence, or whether reality is "the product of one's mind". Ontologically a person can perceive that reality is of external nature and not dependent on social actors and their interpretations of it. Saunders *et al.* (2009) call it objectivist; while Neuman (2011) refers to it as realist. If it is believed that reality is dependent on social actors, and presume that individuals contribute to social phenomena, it is referred to as subjectivist or interpretivist (Saunders *et al.,* 2009; Hughes & Sharrock, 1997). Objectivism and subjectivism are named differently in the literature, as illustrated in Table 3.1. Easterby-Smith, Thorpe and Lowe (1991) refer to it as positivism and phenomenology, while Hughes and Sharrock (1997) describe it as positivism and interpretive alternative.

Table 3.1: Alternative philosophical paradigm names (Source: Hussey & Hussey 1997:54)

Objectivist	Subjectivist
Quantitative	Qualitative
Positivist	Phenomenological
Scientific	Humanistic
Experimentalist	Interpretivist
Traditionalist	
Realist	

Epistemology has to do with the researcher's worldview on the generation, interpretation, and use of the knowledge that is considered to be acceptable and valid (Hughes & Sharrock, 1997). Table 3.2 gives a summary of my fundamental beliefs of the Research Paradigms and will be discussed in detail later in the chapter.

Table 3.2: Fundamental beliefs (Source: adopted from Wahyuni, 2012:80)

Fundamental beliefs	Research Paradigm: Interpretivism
Ontology: the position on the nature of reality	Socially constructed, Subjectivist
Epistemology: the view on what constitutes acceptable knowledge	Subjective meaning and social phenomena. Focus upon details of situations, the reality behind these details, subjective meaning and motivating actions. Interpretive
Research approach :	Inductive approach

The purpose of this research was to explore and understand the reasons for the imbalanced representation of women in senior management positions in the IT sector in South Africa. Ontologically, I took a subjectivist stance as this research focused on the meaning of social phenomena rather than its measurement (Holden & Lynch, 2004). Easterby-Smith *et al.* (1991) state that for the subjectivist it is about the meaning that individuals attach to a given situation. Subjectivists such as Hussey and Hussey (1997) encourage the involvement of the researcher, through the "phenomenologist's attempt to minimise the distance between the researcher and that which is being researched". By investigating the problem in its entirety, a comprehensive understanding was gained of the imbalanced representation of women in senior management positions in IT.

An epistemological stance of interpretivism was taken in this study. Wahyuni (2012) argues that interpretivists believe that the reality is made up of social actors and people's perceptions of it. Saunders *et al.* (2009) believe the aim of interpretive research is to understand phenomena subjectively. I believe that the backgrounds, assumptions, and experiences of each individual play a role in the construction of reality. By studying their experiences and perceptions I gain insight into the factors that encourage women to pursue a career in IT, and that had a role in advancing or hampering the progress of their careers to senior management positions. It gave an insight into the experiences and views of women who successfully pursue a career in a male dominant environment.

3.1.2 Research approach

Inductive approaches strive to develop a theory from the results of the analysed data that has been obtained (Saunders *et al.,* 2009). The research approach employed in this research is of an inductive nature. From the data collected during the research I could deduce reasons for the imbalanced representations of women in senior management positions in the IT sector in South Africa. Thomas (2003) states that the reasons for using an inductive approach are *"(1) to condense extensive and varied raw text data into a brief,*

summary format; (2) to establish clear links between the research objectives and the summary findings derived from the raw data, and (3) to develop models or theories about the underlying structure of experiences or processes which are evident in the raw data".

Qualitative research comprises of comprehensive description of situations, events, people, and interactions, and also the direct quotes from people about their experiences, opinions, and thoughts (Merriam, 1994). Savenye and Robinson (2011) contend that qualitative research comprises of detailed, rich descriptions of human behaviours and opinions. They suggest the use of this method if the researcher wants to get a holistic interpretation and understanding of the context. This study used a qualitative approach which allowed the researcher to pay attention to the participants' own personal viewpoints in relation to their environment. The researcher is of the opinion that the participants were knowledgeable about the IT environment and could best describe and translate their experience through dialogue.

3.1.3 Research strategy

This was an empirical study. Saunders *et al.* (2009) say the choice of research strategy will be guided by the research questions and objectives, and whether it will facilitate meeting said objectives. They identify a number of research strategies. Among others, these include interviews, surveys, case studies, and experiments. This research used interviews with semi-structured questionnaires, and seventeen participants were interviewed. Interviews are a classic qualitative research method that is a direct interaction with the respondents. Qualitative research interviews focus on personal experience and seek to build relationships with the interviewees. This study focused on the personal experience of women working in the IT sector, hence interviews were deemed appropriate. King and Horrocks (2010) describe an interview as a form of communication with the purpose of gathering data that address the study's objectives and questions. They emphasise that the keystone for interviews is to ensure that interviewers listen carefully to respondents and record what is actually said, rather than the researchers' perceptions and interpretations. The integrity of the raw data must be maintained as far as possible and the suggestion is to use the respondents' words in quotes (Kvale & Brinkmann, 2009). In qualitative interviewing there is an interest in the interviewee's point of view and 'rambling' or going off on tangents are often encouraged to gain better understanding of what the interviewee sees as important and relevant.

3.1.4 Unit of analysis

A criterion for inclusion in the study is that the person is a woman who is currently working in the Information Technology field. All of the women interviewed are in middle to senior positions within their respective organizations. They worked in various organizations in the Western Cape and Gauteng provinces of South Africa. All are employed in IT departments of organizations from various industries. Most of the participants had been working in the IT environment for longer than ten years, except for three who had less than five years of experience in IT. With the exception of three, the women had all held several positions within the IT field over the years. Two of the respondents initially agreed to be interviewed, but withdrew for unknown reasons. Some of the participants were suspicious of the study when initially contacted. They were under the impression that it was related to some women's' activist campaign, but were very helpful once it was explained what the purpose of the study was. Two of the women worked for outsourced IT companies while the rest held various positions such as IT security manager, IT project manager, applications manager, service desk managers, and IT operations manager. With this study, I wanted to investigate the age range, marital status, whether they have child dependants. The objective was to look for any relationships amongst these factors, as well as any clues to the reasons for the imbalanced representation of women in senior positions. The age of the participants ranged from 23 to 57, with most between ages 40 and 57. Nine of the women were married, one was divorced and five were single. Nine of the fifteen women had children.

3.1.5 Sampling

Employing sampling techniques and methods allows one to reduce the amount of data needed by only studying or collected data from a sub-group instead of all probable cases. Some studies expect sample data to give a broad overview of all the cases from which the sample has been chosen. All the cases from which a sample can be taken are referred to as the population. Saunders *et al.* (2009) point out that, in sampling, the term population is not used in its normal sense because the cases need not specifically be people.
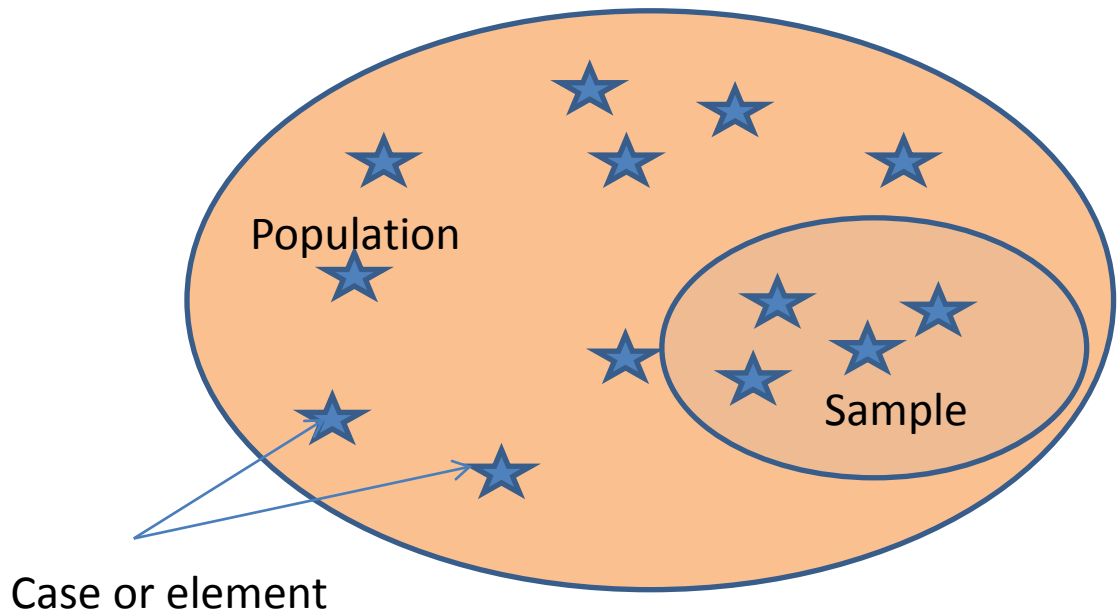
Figure 3.2: Population, sample and individual cases (Source: Saunders *et al*., 2009:211)

Christensen, Engdahl, Grääs, and Haglund (2001) distinguish between probability and non-probability sampling. When respondents are selected randomly and all have an equal opportunity to be included, it is a probability sample. This means that the characteristics of the population may be statistically estimated from the sample (Saunders *et al*., 2009). With non-probability sampling the probability that the respondents will be included in the sample cannot be predicted (Christensen *et al*., 2001).
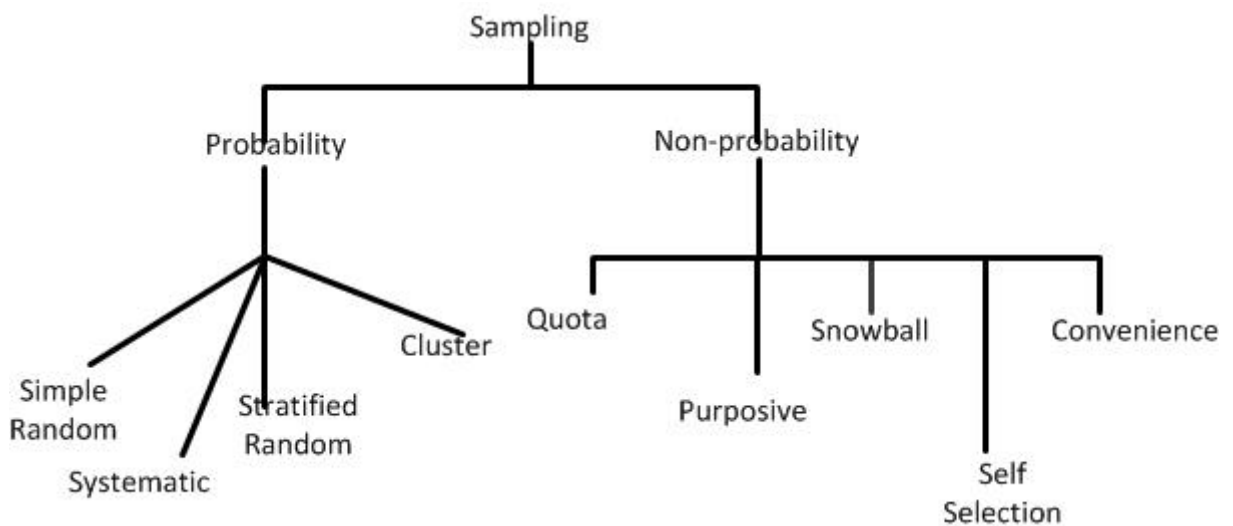
Figure 3.3: Sampling techniques (Source: Saunders *et al*., 2009:213)

According to Saunders *et al*. (2009), in simple random sampling the sample is selected randomly by using a computer or random number generator. Systematic sampling is the selection of the sample at regular intervals. In stratified random sampling the population is first divided into more relevant layers based on one or more attributes, and random samples

are then drawn from the different layers. Cluster sampling divides the population into separate groups before sampling. Quota sampling is usually used for interview surveys and is completely non-random. Polit and Beck (2004:729) describe purposive sampling as "*a non-probability sampling method where the researcher selects participants based on personal judgments about who will be the most expressive or informative*".

Non-probability sampling methods have the advantages of being more flexible, less costly, and less time consuming. Time and financial constraints in this study required a flexible, low-cost, and faster sampling method. This study therefore employed purposive sampling, followed by snowball sampling. Purposive sampling enabled me to use my judgement to select respondents that best enabled me to answer the research questions. Snowball sampling adds additional participants through referrals from the earlier participants (Polit & Beck, 2004). Snowball sampling was selected based on Tsvetovat and Sharabati's (2006) description that communication spreads easily in small social networks. It can help the researcher to get in touch with additional participants although they are not known to the researcher beforehand. Participants were asked to refer me to other women who met the criteria and might be willing to participate in the study.

3.1.6 Data collection

Best and Khan (2003) describe face-to-face interviews as beneficial because the researcher is in direct contact with the participants and the situation under study. Advising on advice on semi-structured interviewing, Hughes and Sharrock (1997) say that it allows the interviewer to expand on interesting responses and develop a relationship with the interviewee. For this study, semi-structured interviews were conducted with 17 women working in different IT organizations in South Africa. The objective was to explore their perceptions and experiences of working in an IT environment. The study included questions about participants' experiences and perceptions around organizational culture as well as factors influencing their advancements to senior positions. The sensitive nature of the questions and their responses necessitated face-to-face interaction. By conducting personal interviews I could build a relationship, explain the purpose of the research, and ensure the participants of confidentiality (Lacity, Lyer & Rudramuniyaiah, 2008).

Dalen (2008) explains that with face-to-face interviews you can observe the participants' reactions, which can be vital to the study. The face-to-face interviews allowed me to pick up on the participants' body language and facial expressions as they talked through their experiences. In one instance the participant became emotional when relating how the unfair treatment from a male manager hampered her advancement to a more senior position. This emotional expression would probably have been missed if another method (e.g. a survey)

was used. Most of the participants were excited about the progress that other women were making in the male dominate environment, and this was written all over their faces. The face-to-face interviews also allowed me to explain or rephrase some of the questions where needed.

Wahyuni (2012) suggests that the researcher should conduct mock interviews with colleagues prior to the formal interview in order to tune the research instrument. Mock interviews were held with two fellow students. As a result some terms and words were changed to make the questions clearer. The order of the main questions was also rearranged to facilitate a better flow of the discussion during the formal interviews.

Initial planning was to have the interviews concluded within one month, but due to the unavailability of the women in senior positions it took from June to August 2013. Fifteen of the interviews were conducted face-to-face but due to financial constraints, it was not possible to do face-to-face interview with the two participants from the Gauteng region. These were therefore done telephonically. The interviews lasted approximately half an hour, but two interviews took longer than an hour each. Interviews were conducted at the locations chosen by the participants. Most of the interviews were done at the participant's offices or boardrooms at the participants' work place. Two interviews were held in coffee shops and one at a participant's home after business hours due to her unavailability during office hours. The interviews were spread widely across the Cape Metropole, including Bellville, Century City, Brackenfell, Durbanville, Stellenbosch, and Athlone.

The interview guide (Appendix A) used consisted of a semi-structured questionnaire with open-ended questions. This permitted the respondents the freedom to argue for what they believed was valid, while answering the questions. The semi-structured questions allowed the participants to relate their personal experiences and the obstacles they may have encountered that prevented or encouraged them to pursue a career as a senior manager in IT. Using the interview guide ensured that the participants stayed focused and did not deviate from the topic.

The first part of the interview focused on the extent to which women are underrepresented in senior management positions in IT in South Africa, the interviewee's opinion on the importance of women in senior positions, and the main contributing factors for this imbalanced representation. The participant's current workplace culture was explored. Questions about how they experience the organizational culture, recruitment processes, and equality within the workplace were asked. The last part focused on how they decided on a

career in IT and the influence of referrals, networking, and mentoring on the advancement of their careers.

3.1.7 Data Analysis

Boeije (2010) describes analysis of qualitative data as dismantling, segmenting, and reassembling the data to construct meaningful findings in order to draw conclusions. Data analysis refers to the drawing of conclusions from raw data (Wahyuni, 2012). Bogdan and Biklen (1982) defines qualitative data analysis as "*working with data, organizing it, breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others*". Qualitative content analysis is the identifying of patterns and themes within the data in a process known as thematic analysis (Given, 2008).

Transcribing is the initial step in data analysis (Kvale & Brinkmann, 2009). All interviews were recorded with the participants' permission and transcribed in full into MS Word documents. Although the transcribing task is generally outsourced, it was done by me due to financial constraints. Two of the interviews were conducted in coffee shops, but because of background noises and static interference, transcription was impossible. They were therefore excluded from the study. Appendix E shows an example of a typical transcript.

Thomas (2003) suggests a number of steps to be followed in the analysis of the qualitative data. These are:
- "the preparation of raw data files (data cleaning)
- close reading (raw text should be read in detail)
- creation of categories (which identifies and defines categories or themes)
- overlapping coding and un-coded text
- continuing revision and refinement of the category system".

Transcripts of all interviews were read in detail. Important sections were marked and a descriptive code allocated to it. This technique is called open coding, and Appendix E shows an example of a transcript with such marked sections. Once all the relevant summaries had been made and coded, the transcript summaries were critically examined for existing similarities. These were then categorised and identifying codes were allocated accordingly. As the data was analysed, frequently mentioned words were grouped together to form a coding scheme — see Appendix F for the coding scheme. A spreadsheet was used to categorise the summarised data and keywords into parts with similar meanings called categories. The data was summarised and categorised and key themes were identified as they emerged in the data.

3.1.8 Ethical considerations

Among the most important considerations when doing research are confidentiality and informed consent (Kelley *et al.,* 2003). Punch (1994) states that the researcher must prevent the subjects from being harmed. The subject's anonymity and privacy must be protected, they must not be deceived, and the researcher must get their informed consent. During this study, any information that can identify the participants, their organizations, or individuals related to them was omitted during the transcribing process. This was done for ethical concerns about anonymity and confidentiality. Kelley *et al.* (2003) recommend that researchers conduct their studies in good faith. The research must not be harmful to subjects and should be worthwhile to them. It can be confirmed that this study was not harmful to any subject. To ensure that each participant agreed to be interviewed and was informed of the purpose of the study, a letter of consent (see Appendix C) was sent to all participants before conducting the study. Approval for the study was gained during the approval of the research proposal from the Faculty of Informatics and Design Research Committee at Cape Peninsula University of Technology. This study adheres to Cape Peninsula University of Technology's requirements and has a signed Research Ethics Review Checklist — see Appendix B.

Gajjar (2013) gives the following reasons why it is imperative to adhere to ethical rules. According to Gajjar (2013) it is imperative to adhere to ethical rules. Such rules promote the aims of research — knowledge, truth and prevention of error — and values such as trust, accountability, and respect promote the considerations that are important to collaborative work. Ethical norms such as copyright and patenting policies are in place to protect intellectual property interests while nurturing collaboration. Researchers don't want their work or ideas stolen and want to get recognition for their work. Ethical standards can make sure that researchers can be held liable. Public support for research can be built if the public can trust the integrity of the research. Ethical norms address social and moral values, like human rights, law compliance, social responsibility, and health and safety. If ethical standards are not followed, considerable harm can be caused to humans, animals, and the public.

Table 3.3: Ethical principles (Source: adapted from Gajja, 2013:8-9)

Ethical Principle	Gajjar's description	Use in this study
Confidentiality	Protect confidential communications such as personnel records, personal information, trade secrets, and papers submitted for publication.	All information that can identify the participants was omitted during transcribing process and labelled with interviewee numbers in this study. A letter that confirmed confidentiality

		was presented to the participants. Each participant was provided with a letter of consent that participation was voluntary. See Appendix C.
Honesty	Report all data, results and methods honestly. Data should not be misrepresented and participants or the public must not be deceived.	The aim of the study was clearly stated during initial contact and reconfirmed before each interview was started. It was also clearly stated that there will be no compensation for participating in the study.
Credibility	Be unbiased in the design, data analysis, interpretation and other aspects of the research. Refers to the truth of the data.	All data was analysed and interpreted by following qualitative data analysis techniques. To add to the credibility of the study, participants were selected that met the criteria to ensure they were of interest to the study.
Integrity	Keep to promises and agreements and act with sincerity.	I kept to appointment schedules as arranged with the participants. One participant requested me to reschedule our appointment 3 times due to other commitments. See Appendix D for interview schedule.

3.1.9 Delineation

South Africa is divided into nine official provinces. This study was limited to interviews in two provinces only; namely Western Cape and Gauteng province. Unfortunately, due to money and time constraints it was not possible to interview candidates from the other seven provinces within South Africa. The participants in the study are women in junior, middle and senior management positions currently employed in the IT sector. The study did not include the opinions of those who have left the IT sector, males, junior employees within the IT sector, or young people considering IT as a career option.

3.2 Summary

This chapter presented an overview of the research philosophy followed, and flowing therefrom the ontology and epistemology guiding the research. The research design was laid out with a description of the approach, strategy, and methods of data collection in qualitative format. In conclusion, the ethical considerations were stated.

In summary, the ontological perspective of the research was subjectivist — believing that phenomena exist because of the social interaction of the actors. The study adopted an interpretive paradigm based on the epistemological view which holds that reality is based on the subjective interpretation of the observer. Burrell and Morgan (1979) confirm that the study falls into the interpretivism classification, aiming to understand the reasons for the under-representation of women in senior management positions in IT.

The research followed an inductive approach and was designed based on qualitative research methods. An interview approach was adopted as qualitative strategy. Primary qualitative data was collected by means of semi-structured interviews, together with literature analysis as secondary data sources. Data were analysed and presented in a qualitative manner using thematic analysis.

Chapter 4 will cover the data analysis and findings of the study.

CHAPTER FOUR

DATA ANALYSIS AND RESEARCH FINDINGS

Introduction

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Description of interview location

⬇

Participant description

⬇

Keyword and Category development

⬇

Findings

⬇

Summary of Findings

⬇

Summary of Themes
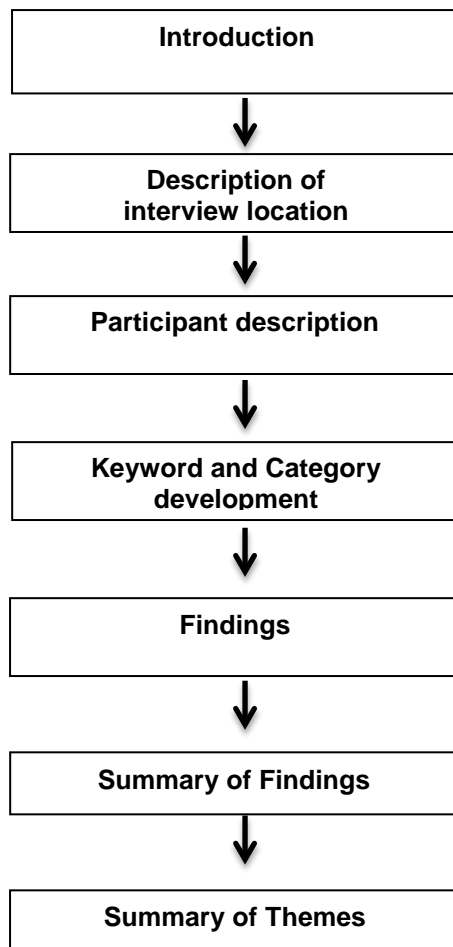
Figure 4.1: Graphical representation of Chapter Four

4.1 Introduction

This chapter presents the research findings of the study — Figure 4.1 is a schematic presentation of the chapter. The interview responses are analysed, and the categories and themes that emerged from the thematic analysis are described. An overview is presented of each participant's business sector, the number of employees in the organization, and her current role. Figure 4.2 gives insight into the geographical area of the Cape Town metropole and Winelands districts where all but two of the interviews were conducted. Chapter 4 closes with a summary of the findings.

This study explores issues around the under-representation of women in senior management positions in ICT. It attempts to uncover the contributing factors by examining the participants' opinions and suggestions on the subject matter. To answer the research problem — "*Women in South Africa are under-represented in senior management positions in the IT sector* "— two main research questions were asked during the interviews:

1. **What are the reasons for the under-representation of women in senior management positions in the IT sector?**
2. **How does the recruitment process for senior management positions affect the imbalances of women in IT?**

The aim of this exploratory study is to provide insight into the reasons for the imbalance in representation of women in senior management positions. The outcome of this research will be used to provide valuable information and to propose guidelines in order to assist organisations to build strategies for the employment of women at senior level, to promote IT as a career for women in government and IT recruitment. It may also enable the IT sector to gain an insight into the benefits it can reap by having diversity at senior management level.

4.2 Description of interview locations

Seventeen (17) interviews were conducted to collect qualitative data from participants in the Western Cape and Gauteng regions. Fifteen of the interviews were done face-to-face in Cape Town (Western Cape) and two telephonically with the participants from the Gauteng province. Interviews were conducted at locations chosen by the participants. As can be expected, most were done in offices or boardrooms at the interviewees' places of work. Two interviews were held in coffee shops, and one at a participant's house after hours due to her unavailability during office hours. As can be seen on the map in Figure 4.2, the interview locations were in the northern and southern suburbs of Cape Town — Bellville, Century City, Brackenfell, Durbanville, and Athlone. An interview guide in the form of a semi-structured questionnaire with open ended questions (as described in Chapter 3) was used — see

Appendix A for the interview guide. Interviews took approximately half an hour, with the exception of two which lasted longer than 70 minutes each. Table 4.1 contains a summary of location, duration, and dates of the interviews.

Table 4.1: Location, duration, and date of Interviews

Participant	Location of Interview	Interview duration	Date of Interview
P1.	Participant's house	1h 10min	10 June 2013
P2.	Participant's office	30 min	26 June 2013
P3.	Telephonic – participant's office landline no	25 min	30 June 2013
P4.	Participant's office	30 min	9 July 2013
P5.	Participant's office	28 min	16 July 2013
P6.	Participant's office	33 min	22 July 2013
P7.	Boardroom at participant's office	30 min	24 July 2013
P8.	Participant's office	28 min	29 July 2013
P9.	Participant's office	30 min	31 July 2013
P10.	Participant's office	30 min	5 August 2013
P11.	Boardroom at participant's office	1h 15min	6 August 2013
P12.	Participant's office	29min	13 August 2013
P13.	Telephonic – participant's office landline no	33 min	19 August 2013
P14.	Participant's office	32 min	21 August 2013
P15.	Boardroom at participant's office	30 min	22 August 2013
P16	Coffee Shop	30 min	26 August 2013
P17	Coffee Shop	29 min	26 August 2013
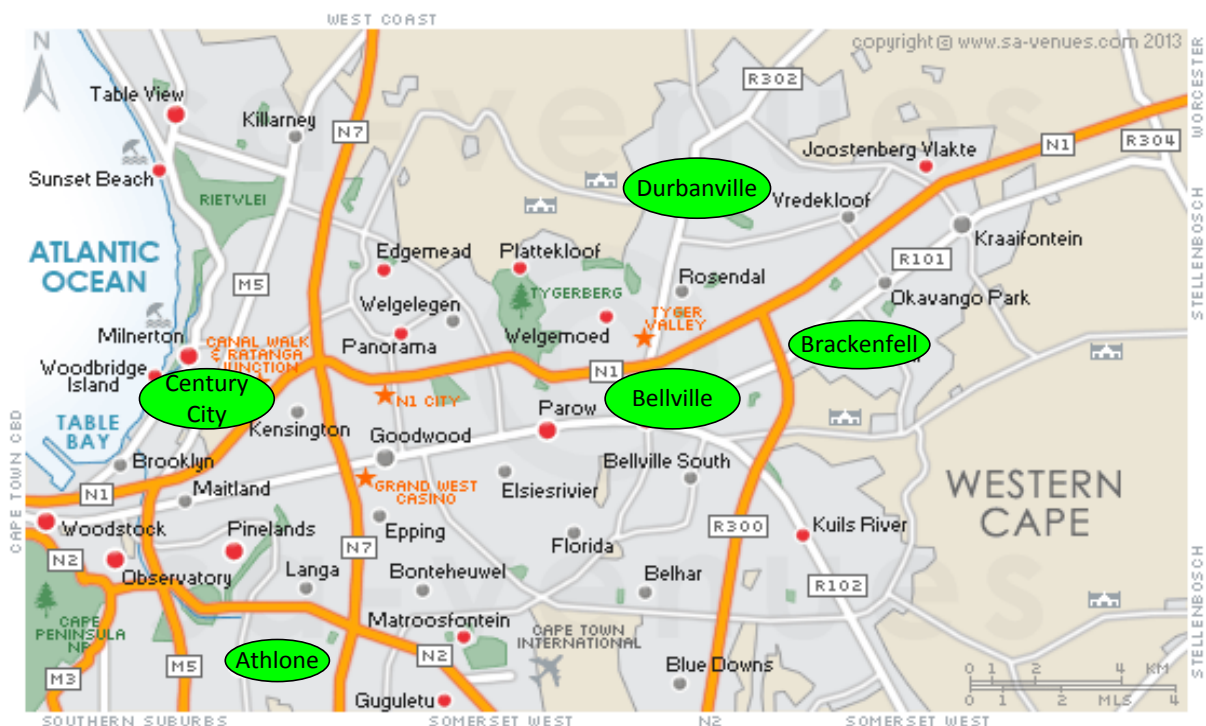
Figure 4.2: Map of interview locations in Cape Town (specific location indicated in green)

4.3 Participant Description

Five of the participants were purposively selected, followed by snowball sampling. The original five participants were asked for referrals to other women who were currently working in the IT field and might be willing to participate in the study. All of the women interviewed are employed in middle to senior IT positions within their respective organizations. The participants worked in various positions such as IT security managers, IT project managers, applications managers, service desk managers, and IT operations managers. Most of the participants have been working in the IT environment for more than 10 years, except for three interviewees (6, 8 and 9) who have less than five years of service in an IT environment. Table 4.2 shows an overview of the participants' profiles.

Table 4.2: Tabled descriptions of the interviewees (Unit of Analysis)

Participant	Company	Age range	Years of service	Occupation	Province
P1.	Government	40 – 50	>10	IT Security Manager	Western Cape
P2.	IT Service Provider	> 50	>10	IT Manager	Western Cape
P3.	Parastatal	40 – 50	>10	IT Application Manager	Gauteng
P4.	Financial Service Provider	30 – 40	>10	IT Applications Manager	Western Cape
P5.	Educational Institute	> 50	>10	IT Faculty Research Coordinator	Western Cape
P6.	IT Service Provider	20 – 30	<5	IT Project Manager	Western Cape
P7.	IT Service Provider	30 – 40	>10	Senior IT Project Manager	Western Cape
P8.	IT Service Provider	20 – 30	<5	IT Recruit Manager	Western Cape
P9.	IT Service Provider	20 – 30	<5	IT Service Desk Manager	Western Cape
P10.	IT Service Provider	40 – 50	>10	IT Service Desk Manager	Western Cape
P11.	Tobacco industry	> 50	>10	IT Services Manager	Western Cape
P12.	IT Service Provider	40 – 50	>10	IT Service Delivery Manager	Western Cape
P13.	Government	30 – 40	>10	Deputy Director - ICT	Gauteng
P14.	Financial Service Provider	> 50	>10	Senior IT project Manager	Western Cape

P15.	Financial Service Provider	30 – 40	>10	IT Applications Manager	Western Cape

Participant 1 – Is an IT Security Manager at Provincial Government of the Western Cape. Her responsibilities include developing, maintaining, and monitoring compliance of all information security policies and procedures within the environment. She has more than 10 years of experience and training within the IT industry. She currently has a team of people reporting to her. She started her career at the entry level and advanced through the ranks to a senior manager position throughout the years.

Participant 2 – Is an IT Manager at an IT Service Provider company. She is accountable for the Managed Services/Outsource Division of the company in the Western Cape. Her responsibilities include retaining and growing existing business, acquiring new business, and coaching and managing the Management Support Team and Services Delivery Team members. She did not start off her career in the IT industry and only moved to IT later in her career.

Participant 3 – Is an IT Applications Manager in the IT department of a Parastatal in Gauteng region. Her responsibility involves the supervision of software applications within the business, planning the process of integrating applications, installation, upgrading, and daily maintenance of software applications. She did not start her career off in IT and only obtained her IT qualifications later on in life.

Participant 4 - Is an IT Applications Manager in the IT department of a Financial Service Provider. Her duties include supervision of personnel, maintenance of software applications, diagnostic and problem solving to achieve optimal application performance. She started off as a secretary and only took up a career in IT after several years. She is studying towards her BA degree and has no formal IT qualifications.

Participant 5 – Is an IT Faculty Research Coordinator at a Tertiary Institute in the Western Cape. She coordinates research and community engagement for the IT department's graduate and post graduate domains. She graduated with a degree IT and advanced through the ranks until she obtained a senior management position.

Participant 6 – Is an IT Project Manager at a Software development Company. Her role is to lead the project management team, communicate team goals and objectives, implement processes and methodologies, and ensure successful and profitable delivery of projects. She has very little experience in the IT field and did not go through the ranks, but was appointed into a management role from the start.

Participant 7 – Is a Senior IT Project Manager at an IT Services Provider Company. Part of her duties is to assist the sales staff with preparing proposals and cost estimates, manage resource allocation for projects, and ensure successful and profitable delivery of projects. She has more than 10 years of experience and training within the IT industry and graduated with a degree in IT.

Participant 8 – Is an IT Recruitment Manager at a Software Development Company. Her responsibility is to ensure the company achieves their staffing objectives by recruiting and evaluating job candidates with the relevant IT skills, advising managers and managing intern programs. She has no IT qualification and has less than 5 years of experience in her field.

Participant 9 – Is a Service Desk Manager at an IT Service Provider company. Her responsibilities include the overseeing of requests, incidents, and problems. She manages and coordinates client queries, provides feedback, and do resource management. She has no IT qualifications, has very little experience in the IT field, and was appointed into a management position right at the beginning of her career.

Participant 10 – Is a Service Desk Manager at an IT Service Provider company. She is responsible for service level management, support to internal and external clients, resource management, and to see that the staff are meeting and exceeding expectations. She has a degree in IT and has many years of experience in the IT industry.

Participant 11 – Is an IT Services Manager for the Southern African Area at an international tobacco company. She oversees the delivery of services and technology internally. She establishes policies to ensure service performance, monitors employees, and evaluates customer feedback. Although she has a degree, it is not in the IT field. She has subsequently completed various IT diplomas and certifications. She has vast experience in IT and has advanced through the ranks to a senior manager position.

Participant 12 – Is an IT Service Delivery Manager for an International IT Service provider company. She is responsible for co-coordinating the delivery of services, ensuring good customer relationships, and acting as the bridge between the client and the operational delivery teams. She did not start her career off in IT, but went through the ranks and worked her way up to a senior management position.

Participant 13 – Is a Deputy Director in ICT at the Department of Public Administration in the Gauteng Region. She develops e-Government policies, provides input to the Public Service

Regulations and ICT Framework(s), coordinates the development of standards and frameworks, reviews existing legislation, and analyses the current policy environment. She holds a Law degree and specializes in IT law. She has many years of experience in the field.

Participant 14 – Is a Senior IT Project Manager in the IT department of a Financial Service Provider. She is responsible for the successful delivery of projects, planning and defining project scopes, activity planning, and resource planning. She did not start her career off in IT but only ventured into IT after a few years of working. She holds a degree in Education as well as Business Administration and later on in her IT career obtained a degree in IT. She worked her way up the ranks and has many years of experience in the IT field.

Participant 15 – Is an Applications Manager at a Financial Service Provider. Her responsibilities include the sign-off of changes and releases into pre-production environment, managing vendor teams, disaster recovery, capacity management, and to track and manage application through appropriate KPIs and measures. She worked in an IT environment for many years and has IT qualifications.

4.4 Keyword development

After each interview the data was transcribed into MS Word documents. Each interviewee was individually numbered, for ease of allocation of the original responses. The transcript was double-checked against the recorded interviews for accuracy. The transcribed document was then read several times to get a clear understanding of the data as it relates to the research questions. Relevant keywords were identified and extracted from the transcripts. Similar keywords were then grouped together to develop categories — see Table 4.3 for a list of identified keywords.

The keywords used most often during the interviews were:

networking, organizational culture, career choices, self-confidence, dominance of men, studies, soft skills, self-awareness, ambition, male characteristics, female characteristics, responsibility, technical skills, stereotyping, training, ambition, and experience.

The keywords are listed in Table 4.3, sorted in descending order by frequency. Seventeen keywords identified were used to summarize the data. It is acknowledge that keyword bias is an issue since some of the keywords were used in the interview questions. As a result these words are more likely to be mentioned than keywords that were <u>not</u> part of the interview questions. Words marked with an asterisk (*) in table 4.3 are keywords that occurred in the interview questions.

Table 4.3: Summary of frequency of keywords and number of respondents using the keywords

Keyword	Frequency	No. of respondents
Networking *	90	15
Organizational culture *	84	15
Female characteristics	61	9
Male Characteristics	47	11
Self confidence	39	9
Career choices *	35	15
Technical skills	28	7
Studies	25	7
Referrals *	20	15
Ambition	18	9
Experience	17	7
Opportunities	15	9
Development programs	14	8
Qualifications	14	9
Self-Awareness	10	8

Work-life balance	9	7
Relationships	8	8

4.5 Category development

As part of the analysis process, the thematic method of grouping and categorizing of the transcribed data was followed. By grouping the keywords and phrases with similar meaning, the five categories shown in Table 4.4 were identified — networking, organizational factors, career advancement, career choices, and recruitment.

Table 4.4: Categories and keywords grouped

Categories	Related keywords
Networking	Referrals, networks, connections, socialise, relationship
Organisational factors	Organizational culture, work life balance, responsibilities, environment
Career advancement	Ambition, dominance of men, self-confidence, lack of self-confidence, male and female characteristics
Career Choices	Technical skills, studies, opportunities, subject choices, self-awareness
Recruitment	Advertisements, recruitment, interviewing process, qualifications, application, skills

Networking as keyword was not only used most often during the interviews, but all the interviewees rated it as important. Organisational culture is also seen by all participants as important. It is noteworthy that IT as a career choice did not come out as strongly as anticipated by the researcher.

4.5 Findings

This section presents and discusses the responses to the various interview questions and derives a series of finding from that. At the end of the discussion, each research sub-questions is presented in tabular form with the findings that apply to it. This gives a summarised indication of how the findings answer the main and sub-questions. The section ends with a summary of the themes that developed from the findings.

For ease of reading, the two research questions with their sub questions are stated below.

Research question 1: What are the reasons for the under-representation of women in senior management positions in the IT sector?

- Sub question 1.1: To what extent are women still under-represented in the IT sector?
- Sub question 1.2: Why are women under-represented in senior management positions in IT?
- Sub question 1.3: How does organizational culture impact women's advancement to senior management positions?
- Sub question 1.4: What strategies have IT organizations implemented to advance women to senior management positions?

Research question 2: How does the recruitment process for senior management positions affect the imbalances of women in IT?
- Sub question 2.1: Why are females not successfully appointed in senior management positions in IT?
- Sub question 2.2: How do organizations recruit for senior management positions?
- Sub question 2.3: What impact do female networking patterns have on the recruitment of women for senior management positions in IT?
- Sub question 2.4: What is the effect of career choices of females on the imbalanced representation of women in IT?

To give structure to the discussion that follows, the research sub-question is stated, then the next interview question, followed by the interviewees' comments.

Sub question 1.1: To what extent are women still under-represented in the IT sector?

Interview question 1.1.1: How many women are employed in senior management positions in IT at the company you work for?

The extent to which women are underrepresented within senior management positions in IT was explored by asking the participants the question above. Table 4.5 gives a summary of the size of the organizations and the number of women in the various management levels.

Table 4.5: The size of the organisation and number of women in junior, middle and senior management positions of the companies represented by the interviewees

Size of organization	Junior Management		Middle Management		Senior Management	
	Female	Male	Female	Male	Female	Male
< 100	1	1	1	2	0	3
101 - 300	3	4	2	2	0	4
301 - 400	5	4	4	3	1	6
>400	8	7	8	8	3	7

When asked this question, most of the participants paused and thought for a while. Some could not give exact figures and volunteered to obtain the information from their HR departments. Participant 1 responded that, *"there are only 2 women in senior positions, much less than men in the same positions"* (Appendix G, P1:C3). Participant 8 stated that they are a small company with about 65 people, with 8 women in total working there; one each at junior and middle management positions respectively. There are 3 senior managers, all male. However the company has a low turnover of staff, with people staying longer than 10 years, *"leaving them ample time to develop those women in the pipeline"* (Appendix G, P8:H7).

From the responses and statistics provided by participants, it seems that organizations are doing well at promoting women to junior and middle level management, since the spread is more of less equal between males and females throughout the organizations. However, of the 25 senior management positions, 21 were filled by males compared to only 4 women in similar senior positions.

Finding 1: More or less equal spread between men and women in junior management positions.
Finding 2: More men than women still hold senior management positions within the IT environment of the selected companies.

Interview question 1.1.2: Do you think it's important to have more women in senior positions?

The importance of having women in senior management positions are emphasised by ten of the fifteen participants (numbers 1, 2, 6, 7, 8, 9, 10, 12, 13 & 14). Participant 1 comments "*it is very important to have women in senior management positions because women bring a different perspective to the boardroom" (*Appendix G, P1:D3). Participants 2 and 8 agree on the need for women in IT and further commented that, despite an increase in the number of women being appointed in senior positions, there is still room for improvement. Participant 2 further said that *"the emotional side of women is needed in IT"* (Appendix G, P2:D11).
Participant 9 is of the opinion that, if more women are appointed in senior management positions, it will serve as a motivation to young and upcoming females that women can excel and pursue a career in IT. Participant 14 argues that "*yes, it is important; women can do more work, multiple tasking (sic) and can keep track of everything"* (Appendix G, P14:D3)*.* Participant 12 comments, *"women bring something different to the work place; they balance out what the male brings to the work place"* (Appendix G, P12:D3)*.*

Only five of the participants (3, 4, 5, 11 & 15) are of the opinion that it is not important to have women in senior positions. In their opinion it is not a matter of gender, but that the right skilled and best qualified person should be employed in senior IT positions. Participant 5 argues "*not specifically women, but the right person. Gender should not matter; it must be a matter of skill" (*Appendix G, P5:D2-D4)*.* Participant 15 comments *"the best skilled person should be in the position, irrespective of the gender"* (Appendix G, P15:D2)*.* Participant 3 does not have a preference for a specific gender to be employed in senior IT positions: *"It is not something that matters to me. The current senior manager is there forever, and I would like to see new, young blood coming into the organization"* (Appendix G, P3:D2, D4)*.*

Finding 3: The majority of participants want to see more women employed in senior management positions**.**

Finding 4: Some participants do not have a gender preference and want to see the best person in the position.

Some interviewees mentioned the benefits that organizations can gain by employing women in senior management positions. Strong emphasis is placed on the elements of emotional intelligence that women bring into the work place, especially into senior management positions. Some interviewees comment on how women can multi-task without losing focus or energy. Participants 2, 3, 7, 9 and 14 mention that women are flexible and can do multi-tasking*.* Participant 14 maintains that "*women can do more work, can multi-task, and can keep track of everything. I think women can do more than one thing at a time because they*

are mothers. Mothers have multiple rolls to play" (Appendix G, P14:D5). This statement is supported by participant 9's assertion that "*men think one track only*" (Appendix G, P9:F4).

Women are described as flexible and able to adapt to changes because of the multiple roles they are used to playing in being both mothers and career women — many of them interchange constantly between the two roles. Participant 4 states that *"a woman's job is never done, and when she gets home she has a different role to fulfil"* (Appendix G, P4:AV4). Participant 14 argues: *"Because women have multiple rolls to fulfil, they will do everything well and therefor work harder. I think women can do more than one thing at a time because they are mothers. Mothers have multiple rolls to play"* (Appendix G, P14:D6).

Participants 1, 2, 6, 7 and 14 hold that women are willing to accept more responsibility than their male counterparts in a work situation. Participant 7 argues that "*men want to know what is in their job specification and only do that; they do as little as possible and getting paid the same or more than a woman doing five or more things; women always do whatever it takes to get the job done" (*Appendix G, P7:K2). Participant 6 states, verbatim, *"men do one thing and you getting paid the same or more but women doing five more things"* (Appendix G, P6:D4).

Finding 5: In the view of the participants, women can multi-task, are more flexible, and accept more responsibility than their male counterparts.

Empathy allows a leader to get along well with people of diverse backgrounds, which is an important characteristic for leaders. In a country such as South Africa with its young democracy, employees come from various backgrounds and cultures, so it is important that organizational leaders must be empathetic. Participants 1, 2, 3, 5, 6 and 7 in this study describe women as leaders with empathy, and able to adjust to a wide range of emotional signals. They listen attentively and can understand the other person's perspective. Participant 5 states that "*women listen attentively; they will embrace the peoples' problem and try to fix it" (*Appendix G, P5:D5). She is supported by participant 3's opinion that *"women can interact better; they have good interpersonal skills"* (Appendix G, P3:D5). Participant 6's opinion is that *"men don't have people skills; I think it is where men are falling short"* (Appendix G, P6:W8). Participant 7 comments that *"women are more people orientated, they have very, very good people skills, and companies usually underestimate the power of people skills"* (Appendix G, P7:D7). This also supports the statements of participants 3 and 5 that women have more empathy*.*

Participants 1, 6, 7 and 8 describe women as more interpersonal and men as more task-oriented and autocratic. Men are pictured as not being empathetic and keeping women at a distance. This is evident in comments made by Participant 8: "*Men cannot really understand about women's emotions, it is difficult for men to get the overall picture of things"* (Appendix G, P8:F2). Participant 7 expresses a similar opinion: "*Men just want to do the technical part of the job; men don't want to manage people*" (Appendix G, P7:H7). Participants 1 and 2 are of the opinion that men lack confidence in women and don't listen to women's opinions. Participant 1 supports this, stating that "*women must explain ten times more before men listen to their opinion*" (Appendix G, P1:H17), while Participant 2 holds that "*men lack confidence in ladies and do not value their opinion"* (Appendix G, P2:F5). Participant 14 recalls that she *"had to force the men to listen to me"* (Appendix G, P14:L7), while Participant 1 said, *"as women you have to fight to have your voice heard and [must] make their voice physically louder*" (Appendix G, P1:H13-14).

Finding 6: Female managers are perceived to have better listening, interpersonal, and people skills than male managers.

Finding 7: Women are perceived to be less task-oriented than men.

Finding 8: Men are perceived as autocratic with less empathy than women.

Finding 9: Men lack confidence in women in management positions.

Conflict management is an important aspect of management. Six of the 15 participants (6, 7, 9, 10, 12 & 14) state that women can manage conflict better than men. They describe women as leaders that understand multiple perspectives. Women acknowledge feelings and try to view all sides. The participants are of the opinion that women, in contrast to their male counterparts, are more balanced in what they do. Participant 10 argues that "*women treat employees equally; they are fairer in what they do"* (Appendix G, P10:D2-3)*.* Generally, women treat all employees equally and Participant 12 describes this statement best: "*Women see things objectively and have a good balance of fairness*" (Appendix G, P12:V8). She is supported by participant 9: *"Women's approach is differently and they are fairer"* (Appendix G, P9:F5).

Finding 10: In the view of the participants, female managers manage conflict more effectively and efficiently than men.

Sub-question 1.2 is designed to uncover the reasons for the under-representation of women in senior management positions.

Sub question 1.2: Why are women under-represented in senior management positions in IT?

Interview question 1.2: What do you think, is the main contributing factors for the imbalance in the representation of women in senior management positions in IT?

Figure 4.3 represents participants' reasons for the imbalance in the representation of women in senior management positions. The legacy of male dominance in senior positions, followed by women's reluctance to pursue a technical career, are the main reasons given for the low representation of women in the IT industry.
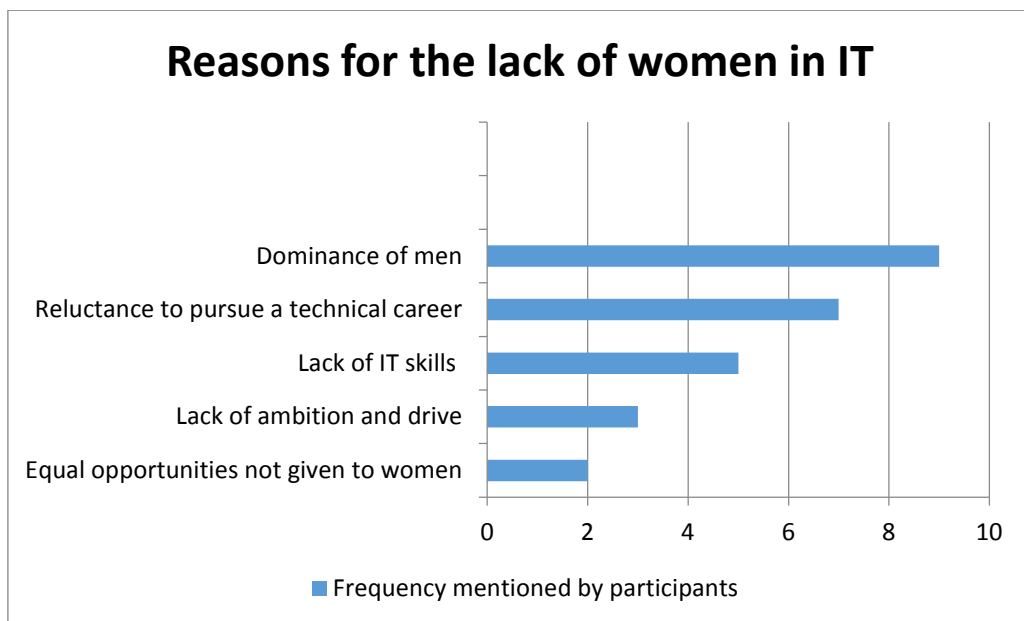
Figure 4.3: Graphical representation of participants' reasons for the lack of women in senior management positions

The lack of women with IT qualifications is placed third, while women's lack of ambition appears to be less important.

i) Dominance of men

The Dominance of men is a legacy of the past when IT was seen as a man's world. This dominance is identified as the main factor contributing to the imbalance in representation of women in senior management positions — it is mentioned by nine participants (1, 2, 6, 7, 8, 9, 10, 12 & 14). Participant 14 comments, "*when businesses start up, there is a legacy of men being the start-up people and once they have created the business, they look after their buddies*" (Appendix G, P14:F2). Participant 7 feels that *"IT is a serious male-dominated environment; IT is a man thing. Only men did IT in the past and now we have women doing it"* (Appendix G, P7:F2). Participant 1 states*, "a contributing factor is that IT is a man's world;*

they find IT easier" (Appendix G, P1:F13). Participant 2 supported this, commenting *"It's a man's world, IT is dominated by men"* (Appendix G, P2:F3)*.*

Finding 11: The legacy in the IT industry where men hold senior positions works against women wanting to advance their careers.

ii)   Women's reluctance to pursue a technical career

Women's reluctance to follow a career in a technical field is noted by seven of the participants (1, 2, 5, 7, 8, 9 & 12). Participant 2 argues that *"females don't want to do technical work or become technicians"* (Appendix G, P2:F6) Participant 8 states that *"women don't see themselves in technical environments"* (Appendix G, P8:F8)*,* and is supported by Participant 9: *"Women don't see themselves prospering in a technical environment"* (Appendix G, P9:H4)*.* Participant 14 said that *"men are put into that senior role because of their technical ability"* (Appendix G, P14:F8)*.* Participant 1 thinks women find IT difficult and participant 2 is of the opinion that IT is not attractive to women and therefor they do not choose technical careers such as IT. Participant 8 argues that IT people are stereotyped as nerdy guys with thick glasses sitting in their corner programming all day, being social outcasts. This type of thinking is pushing females away from taking up IT as a career.

Finding 12: A contributing factor for the imbalance of women in senior positions is women's reluctance to take up a technical career such as IT.

iii)   Lack of IT skills

The limited number of women with IT qualifications is highlighted by six participants (1, 2, 5, 7, 8 & 12). Participant 8's comment supports this best: *"Very limited female CV's with required IT qualifications do come through"* (Appendix G, P8:F9)*.* Participant 1 argues, *"I studied in the 90s, when computers came about. There were a lot of men studying IT and not a lot of women. We still see it, even now"* (Appendix G, P1:F4). This view is supported by participant 5: *"There are not enough women entering the market and more exit the IT field all the time"* (Appendix G, P5:I5-6)*.*

Only in recent years are women starting to consider IT as a career option, and as a result have to play catch-up with men. Participant 1 comments that boys are usually better at maths than girls, therefore more men study IT: *"You could only study IT if you had maths and boys was usually better in maths. That allowed them to do degrees like BSc, which is a contributing factor why there are more men in IT"* (Appendix G, P1:F5). From an IT recruitment perspective, participant 8 is of the opinion that a very limited number of female

CV's with the required IT qualification are submitted for senior positions. She states that *"recruiting in IT is difficult, because there are so few women with the relevant qualifications and experience"* (Appendix G, P8:F12). This limits the number of females that do get shortlisted. Participant 12 says that "*it is difficult to find women with proper IT qualifications and experience to fill senior positions"* (Appendix G, P12: F9).

Finding 13: There are a limited number of women with IT qualifications entering the industry.

iv)   Lack of ambition

Three participants (2, 5 & 8) blame lack of ambition and drive for women's inability to climb the corporate ladder. Participant 2 is of the opinion that women simply don't want to advance to senior management level because they are not interested, stating: *"Some women don't want to climb the ladder, they can't just blame men"* (Appendix G, P2:F8). Participant 5 said: "*Women are their own worst enemy, they don't want to apply for positions"* (Appendix G, P5:F3). Participant 8 supports this statement: "*No matter the qualification or experience, all is irrelevant if you don't have the passion and drive"* (Appendix G, P8:F11).

Finding 14: A lack of ambition and drive to advance in senior positions has been identified as a contributing factor.

Interview questions around sub question 1.3 were designed to explore organizational cultures. Questions to probe gender diversity in the workplace, opportunities for women within the organizations, and organizational culture that hamper or advance their careers were asked to determine why women are under-represented in senior positions.

Sub question 1.3: How does organizational culture impact women's advancement to senior management positions?

Interview question 1.3.1: What is the current workplace culture of your organization?

The participants are generally positive about the workplace culture and on face value it seems that gender imbalance in the IT sector is not a big concern. Women are treated fairly in organizations. Twelve of the participants (2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 14 & 15) said the organizations they worked for have an open culture. They commented that the companies welcome women entering the IT environment treat women fairly. Participant 9 supports this statement best: *"I have not come across anything that stops women in the organization. I cannot recall an instance where an opportunity was denied because I am a woman"* (Appendix G, P9:J4). Participant 5's opinion is that "*gender is not an issue in this company,*

and they allow opportunities for women" (Appendix G, P5:H5). Participant 14: *said "I know they will not hold back to give me an opportunity"* (Appendix G, P14:H4)*.* Participants 8, 11, 12, 15 all feel they are treated equally to men and they are not denied opportunities because they are women.

Finding 15: Organizations are open to women in IT**.**
Finding 16: Organizations allow opportunities for women in IT.

Participants 1 and 10 openly admit that gender diversity is an issue within their organizations. Participant 1 feels that the organization is more accepting and open to men. Declaring that women do not get opportunities to voice their opinions, she states (verbatim): *"I don't think they even miss women, because they were just always a lot of men. I must fight so hard to have my voice heard. If it was another man saying what I said, they will accept it easier. Yes, they are more acceptable to men than women. It is almost like they keep women at a distance"* (Appendix G, P1:H3). Participant 10 says her organization does window dressing by advocating their open culture to women, but women experience something totally different in the work place from what is advocated — *"It can be perceived as open, but it is not really open. From the outside it appears that they are welcoming to women, but once you are inside you can see it is not the case"* (Appendix G, P10:H2)*.*

Participants 3, 4, 5, 12 and 15 specifically mention that they do not want to be treated any differently or get more privileges than men just because they are women. They want to be treated equally. Participant 5 said: "*I personally have a problem — why should I be treated differently because I am a woman? Being a woman does not have to result in them treating me differently"* (Appendix G, P5:I3). Participant 12 agrees: "*The fact that you are female, doesn't mean you must be treated differently*" (Appendix G, P12:H5). Participant 15 also supports this statement: *"I don't think there should be exceptions or women treated differently" (*Appendix G, P15:J2).

Finding 17: Women in the IT environment do not want to be treated differently from their male counterparts.

Interview question 1.3.2: What do you think can be done to improve gender diversity at senior management levels in your organization?

Table 4.6 lists a series of suggestions made by the participants on what organizations can do to improve gender diversity.

Table 4.6: Suggestions on what organizations can do to improve gender diversity

Suggestion	No of participants
Mentorship programs	5
Development programs	5
Gender diversity must be a strategic intent	3
Flexible working hours	3
Competitive compensation packages	2
Gender specific recruitment	2
Infrastructure and facilities at work	1
Support groups for women	1

Mentorship and development programs to groom young, upcoming females and prepare them for senior management top the list, supported by participants 2, 3, 8, 9 and 10. Interviewee 2 wants employers to "*have an Internship program. Up skill them and give them the opportunities. Grow that person into a leadership position that can someday take over*". (Appendix G, P2:J2). She is supported by Participant 3 saying, *"develop those in the pipeline*" (Appendix G, P3:J4). Participant 9 mentions: *"More management role training, make it available and easily accessible"* (Appendix G, P9:L5)*.*

Participant 1, 9, and 14 are of the opinion that gender diversity should be part of the company's strategy and top management should be driving it — as Participant 1 puts it: "*Diversity must be driven from senior management, must be top driven*" (Appendix G, P1:J3), and supported by Participant 9: "*It must be part of their strategy to get more women*" (Appendix G, P9:L3)*.* Participant 14 shares this sentiment: *"They can have a drive to bring in only women, and it must be a company initiative to only bring in women*" (Appendix G, P14:J7). If top management supports the development and advancement of women, it can lead to a gender-diverse company.

Flexible working hours that will allow women to spend more time with the family, or working from home when required, are mentioned by interviewees 4, 11 and 12. Participant 4 exclaims that *"sometimes the mothers have to do things and the company must be lenient"* (Appendix G, P4:J3). Participant 11 supports this: "*Flexibility around working hours. Sometimes a person wants to be able to work from a different place and not the office"* (Appendix G, P11:J2). Participant 12 wants to *"have flexibility to work from home"* (Appendix G, P12:J2).

Organizations must look at offering competitive compensation packages to women; attractive packages might draw more women to apply for positions, according to participants 8 and 12.

Participant 8 says *"offer competitive packages"* (Appendix G, P8:J2), and participant 12 suggests, *"companies should tailor make their offers to women"* (Appendix G, P12:J5).

Participants 2 and 14 suggest that organizations must look at their recruitment process, and specifically mention that they are looking for females to apply in advertisements. Participant 2 makes it clear: "*If you deal with recruitment agencies or place adverts, make sure you inform them that you prefer women"* (Appendix G, P2:J7). When dealing with recruitment agencies they should brief them on their preference for women to apply. Job postings should use specific phrasing that speak to the interests and expectations of women.

Only participant 12 comments on having infrastructure and facilities at work to support work-life balance: *"Have crèches available at work, having certain facilities available, like rooms for breastfeeding mums, having a gym, understand what is important for women"* (Appendix G, P12:J9). Participant 1 wants support groups for women where support is needed.

Finding 18: Women need mentoring and development programs that will assist in advancing to senior management levels.

Finding 19: Infrastructure and facilities at work do not support work life balance.

Finding 20: There are no support groups for women with family responsibilities.

Finding 21: Recruitment agencies are not placing enough emphasise the need and opportunities for women in the IT industry.

Interview question 1.3.3: What workplace / organizational culture characteristics have hampered or assisted your development or advancement in your career?

In findings 15 and 16 the organisational culture is described as good for women's advancement. However when asked about organizational characteristics that hampered their advancement, participants commented on the dominant management style of male managers, the influence of old-school "white Afrikaner" men, the perception that men are better at IT, and opportunities that were not given to women. Often women became discouraged by managers who may not have recognized their value and contribution. This came out in Participant 14's response: "*I did not get credit for my work from the male manager. Good work was not recognized by them. Male managers did not recognize my skills and that kept me back. They were happy to have me there because I was a hard worker, but I was not allowed to question them. Their dominant management style hamper my career advancement"* (Appendix G, P14:L2). Participant 12's opinion is that *"white Afrikaner old school men have an influence and still have that mind-set that males are better*

at doing IT" (Appendix G, P12:L5). Participant 6 said "*My boss was very egocentric; his micro-management style stumbled (sic) my career. Men got this dominant managing style that dampened my career"* (Appendix G, P6:K2). Participant 7 says: "*I have to motivate why I must get an increase; none of the men had to motivate why they need an increase, they just got it"* (Appendix G, P7: K4)*.*

Participant 10 tells how *"the same (male) person was always chosen to act as the Regional Manager; I was never given the opportunity. That space was reserved for a male"* (Appendix G, P10:L3). Consequently she felt cheated out of an opportunity to grow and improve her management skills.

Finding 22: Dominant management styles of male managers impact women's career advancement.

Finding 23: Equal opportunities are not given to all women in the IT industry.

Six of the women (2, 3, 9, 11, 14 & 15*)* blamed themselves for slow progress or lack of career advancement, or saw it as their own fault. Participants 2, 3, 9 and 14 all commented on how they either don't have an IT qualification, or only received an IT degree later in their career. They felt this hampered their advancement. Participant 2 says: "*I don't have any IT qualifications"* (Appendix G, P2:L2); number 3: "*… only got my degree late in my career and that hampers my advancement"* (Appendix G, P3:L3)*.* Participant 9 feels: *"I am not qualified to be in a senior management role"* (Appendix G, P9:Q3).

Participants 11, 14 and 15 each took time off to start a family and describe how it impacts their advancement. Participant 11 relates her experience: "*The fact that I took time out to stay at home when my child was born, meant I was only doing contract work during that time. I am not at the same level as women my age"* (Appendix G, P11:L2). Participant 14 told how it impacts other women's careers, since she doesn't have children herself. Participant 15 recalls her experience: *"One of my previous managers told me he cannot evaluate me after I came back from maternity leave, so I had to prove myself again"* (Appendix G, P15:L3).

Finding 24: Women blame themselves for the lack of advancement in their careers**.**

Three main factors that assist the women in advancing their careers are:

     i.   Further studies,
    ii.   Open organizational culture, and
   iii.   Personal drive.

Two participants (1 & 14) think furthering their studies helped them in their careers. Participant 1 contends: *"It was my studies, I furthered my studies, it gave me the confidence to speak boldly about how valuable I am, what I can bring to the company and that I can actually do the job. It gave me confidence"* (Appendix G, P1:N4). Number 14 says: "*I went studying IT to understand it better. My promotions came out of me studying. I enrich my own views by doing my studies"* (Appendix G, P14:N3).

Four participants (2, 3, 4 and 6) seem to contradict what some of their fellow interviewees experienced. They state that, because of the open organizational culture, they were given opportunities which they used to assist them in their careers. Participant 2 relates how it helped her to grow both on a personal level and in her career. She tells how "*they saw the opportunity to place me in the position. I was empowered to make decisions which assisted me a lot"* (Appendix G, P2:L8). According to Participant 6, "*the company culture gave me a new outlook on IT, the culture is about what you can do and how well you can do it. If you make a mistake they will guide you so you can learn from it; not holding your mistakes against you"* (Appendix G, P6:M2).

Four of the participants (10, 11, 14 & 15) describe their own personal drive, willingness to learn, and personal motivation as the reasons for progressing in their careers. Participant 10 argues that *"it is in my nature to do my best"* (Appendix G, P10:N2), while number 11 said, *"I like to learn new things and am always involved in new things and that is what assisted me in my career"* (Appendix G, P11:N2). Participant 15 thinks her *"… promotion was based on my commitment and delivery"* (Appendix G, P15:N2).

Finding 25: Open organizational culture is important for women to advance in their careers.
Finding 26: Personal drive helps some participants to progress in their careers.

If gender diversity is an organizational strategy and it is implemented and monitored correctly, the imbalanced representation of women in senior management positions can be eradicated more quickly. With gender diversity as an organizational strategy, what organisations do and how they do it, can significantly impact and fast-track women's careers. The aim of sub question 1.4 is to determine whether companies treat gender diversity as an organizational strategy.

Sub question 1.4: What strategies have IT organizations in South Africa implemented to advance women to senior management positions?

Interview question 1.4.1 a.: Are you aware of any programs within your organization that assist women in advancing their career?

Having development programs specifically for women can assist them in many ways — for example how to be more self-initiating in directing their careers. To probe this, the question above was posed to the participants. Eight participants (1, 4, 7, 11, 12, 13, 14 & 15) said their organizations do have management development programs in place, but not specifically for women. This was confirmed by participant *(*Appendix G, P4:V3) and participant 11 (Appendix G, P11:V3). The programs available in some of these organizations are open for both males and females but are not widely advertised and communicated. Many employees are not even aware of such programs. Participant 14 comments: "*There are programs available but it is not communicated openly"* (Appendix G, P14:V3).

None of the organizations have programs available to specifically assist women advancing their careers. Not having gender specific development programs can be interpreted as a lack of commitment to increase gender diversity. The other seven participants were not aware of any programs for development — a typical comment is that of participant 6: "*No programs that I am aware of"* (Appendix G, P6:U3). Participant 7 sums the situation up as follows: "*No, inside this company we don't concentrate on how to advance women. They look at the job and what the role needs"* (Appendix G, P7:T8). Not communicating the available programs widely is an indicator that gender diversity might not be at the top of the strategic list.

Interview question 1.4.1 b: If you do have a programme, are these programs measured?

Where programmes do exist, they do not get measured. Participant 14 states: *"I have participated and have benefited out of it. I am not aware how else it is measured"* (Appendix G, P14:V5). *Participant 12 asserts: "I have gained a lot, but the company did not use my newly acquired skills"* (Appendix G, P12:T2). The rest of the participants did not know if and how the successes of these development programs are measured and consequently did not comment on it.

Finding 27: There are no or little gender specific development programs in organizations, according to some participants.
Finding 28: Gender diversity is not a strategic intent in most organizations**.**

Research question 2:

How does the recruitment process for senior management positions affect the imbalances of women in IT?

The reasons why women are not successfully <u>appointed</u> in senior management positions must directly impact their <u>representation</u> in senior management. Research question 2 therefore explores why women are not successfully appointed in senior management positions. The participants were asked whether they have applied for more senior positions and reasons why they were not successful. They were also asked whether they will apply should a senior position be advertised in the future. This section also explored recruitment processes and criteria when appointing senior managers, as well as the impact of the interviewing panel on the selection process. Female network patterns and how these impact the recruitment of senior managers are also explored.

For ease of reading the research question and the first sub question are re-stated below:

Research question 2: How does the recruitment process for senior management positions affect the imbalances of women in IT?

Research sub question 2.1: What are the reasons why females are not successfully appointed in senior management positions in IT?

Interview question 2.1.1: Have you ever applied for a more senior management position in IT? If you have applied, were you successful 1st time round or not?

Of the fifteen participants, only six women (1, 3, 5, 12, 13 & 14) have applied for a more senior position than their current one. Participant 3 relates her experience: *"I recently applied for about 16 IT positions and only got 3 interviews. I was not successful in any of them"* (Appendix G, P3:P2).

Four participants (1, 5, 12 & 14) ventured reasons why they thought they were unsuccessful in their application. Participant 1 and 14 thought that they were not qualified enough, and that the position was earmarked for someone else, probably a male candidate. Participant 1 asserts, *"yes I applied, but was not successful. Maybe I just did not have the qualification or others were earmarked, I cannot say for sure, I am not sure about the reasons why I was not successful. Maybe I was not good enough or had not enough experience at the time"* (Appendix G, P1:P3). Comment from participant 14 was: *"I have applied, but was not successful. The manager was a man, maybe he thought I was not experienced enough. Maybe he think I was not qualified enough. I think there was ego involved"* (Appendix G, P14:

P2). Participant 5 thought she was not ready for the position at the time and participant 12 openly alleged that a male was appointed and she doesn't think he performed any better during the interview or was more skilled. In her own words: "*I was successful and other time not. A male got the position that I applied for, but I don't think he was any better than me*" (Appendix G, P12:P2).

Finding 29: Not enough women apply for senior positions**.**
Finding 30: Women are of the opinion that they are not qualified enough for senior positions**.**

Interview question 2.1.2: Will you consider applying when a senior position gets advertised in the future?

Only four (3, 5, 6 & 10) of the fifteen participants said that they would definitely apply for a more senior position. Four participants (4, 9, 11 & 15) would consider applying, but this would depend on their personal circumstances and life stage when the position is advertised, or they would only apply under specific conditions. Participant 4 argues: "*I think it is where I am in my life, it will have to be a senior position within the same company*" (Appendix G, P4:R3). Number 15 said, "*only if I believe I am the best candidate for the position. My skills must be an exact match with the requirements*" (Appendix G, P15:R2)*.* Participants 1, 4, 9 and 11 might consider it, depending on their personal circumstances at the time. Participant 1 concedes, "*I am currently happy with where I am. I will apply, but I know it will come with more responsibilities and that will put strain on my household, which is my focus at the current stage*" (Appendix G, P1:R5).

Six participants (2, 7, 8, 12, 13 & 14) said they will not consider applying for a more senior position. Three women responded that they are comfortable in their current positions and not interested in a more senior position. Participant 2 sums it up: "*I am very comfortable in my position; I am good at what I am doing, I will not apply for another position now*" (Appendix G, P2:P12)*.* Other reasons given are that they are not qualified enough, that they don't have enough experience, they first need to gain more skills, or still need to learn more of their current roles. Participant 14 simply says "*I don't aspire to climb the ladder anymore*" (Appendix G, P14:R3)*.* Rather than applying for a more senior position, participant 7 believes that "*… I always grow into one. I think you have to advance in to a more senior role, you must be able to apply what you know*" (Appendix G, P7:O2). Participant 12 is not ready — "*I need to understand my current role better*" (Appendix G, P12:R2)*.*

Finding 31: Women may be interested in applying for more senior positions**.**
Finding 32: Personal circumstances are important when women consider applying for senior positions.

Finding 33: The lack of women applicants is not necessarily because of environmental factors such as company culture or policy and procedures but of women's attitudes towards their careers.

Sub question 2.2: How do organizations recruit for senior management positions?

Interview questions 2.2.1: What do you think must be the qualities an organization should look for when recruiting for senior management positions in IT?

When asked the above interview question, eight participants (1, 2, 3, 5, 6, 7, 11 &15) responded that leadership skills should top the list. Participant 9 feels "*the person must have leadership qualities*" (Appendix G, P9:Y9), and number 11asserts that "*it must be someone who can lead a team of people to the company's objectives*" (Appendix G, P11: X3).

People skills ranked second as mentioned by seven participants (1, 2, 3, 6, 9, 12 & 14). Participant 1 simply says "*the person must have very, very good people skills*" (Appendix G, P1: X8) and number 6 echoes with "*people skills are vital*" (Appendix G, P6:W4)*.*

Good communication skills (1, 7, 8, 12 & 15) and integrity (4, 5, 9, 12 & 14) are mentioned by five participants respectively. Although IT is a technical field, seven of the participants (1, 2, 3, 7, 8, 10 & 14) feel that technical skills need not be a key factor when recruiting for senior management positions, although the person must have at least an understanding of the environment. In participant 3's opinion "*it doesn't have to be a technical specialist*" (Appendix G, P3: X2), and supported by number 2: "*The person must only have an understanding of technical environment*" (Appendix G, P2: X2)*.* Strategic leadership and the decision making abilities should weigh more than technical skills in senior management appointments. They mention that technical skills and abilities should not be deciding factors when interviewing for a senior management position in IT.

Finding 34: Much emphasis is on technical skills rather than leadership skills, people skills, communication skills, and integrity when recruiting for senior positions.

Given the results of Grant Thornton's International Business Report (2013), males still dominate senior positions in the IT industry. Therefore the logical expectation is that there will be more men on interviewing panels. Participants were asked whether they think they stand a fair chance of being selected with a male-dominated interviewing panel.

Interview Question 2.2.2: What do you think is the possibility of you having an equal opportunity to be appointed if the interviewing panel is predominantly male?

Of the 15 participants, 60% (3, 4, 5, 6, 7, 8, 10, 11 & 13) said being female will not be an issue when being interviewed by a male-dominated panel. They will use the fact that they are female to their advantage and sell themselves to the men on the interviewing panel by manipulating and charming the men. Participant 7 thinks "*males are easily manipulated; it only takes a big or confident smile. Being interviewed by men might be easier*" (Appendix G, P7: Z2). Participant 6 echoes the sentiment that, *"all you need is a pretty face and having the skills to get the job"* (Appendix G, P7:AA5). Women are more judgemental during interviews and can feel threatened by other competent women in the environment. This was raised by participants 4, 6 and 7. Participant 4 best expressed the opinion: "*Women are more judgemental, they will look at other things like the clothes, whereas men will look out for the skills*" (Appendix G, P4:AB4).

Finding 35: A male dominated interview panel will not necessarily influence women's chances of being selected during an interview**.**
Finding 36: According to most participants, women will use their feminine charm to manipulate male dominated interview panels to their advantage**.**

Contrary to the participants above, the remaining 40% of interviewees (1, 2, 9, 12, 14 & 15) do not think they stand a fair chance of being selected if the interviewing panel is predominantly male. These women are of the opinion that they can better connect to females on the panel. They believe that males might not understand what females are trying to say. Males are unable to understand the softer side of women and will rather select a male during interviews. In this respect, participant 12 contends that "*females will understand other females better; males might not understand what a female is trying to say and will therefore select a male"* (Appendix G, P12:Z4)*.* Participant 1 asserts that *"male will choose male; there are fewer complications with men, like going on maternity leave, having mood swings, etc."* (Appendix G, P1:AB4).

Finding 37: Males are perceived to select another male over a female during an interview.

Interview question 2.2.3: How do you think organizations should advertise and handle senior management positions in IT?

Ten of the 15 participants (1, 3, 4, 8, 9, 10, 11, 13, 14 & 15) argue that senior management positions should not be handled different than any other position. It should be transparent and be advertised as widely as possible. Some of the mediums mentioned are newspapers, social networks and Internet, intranet, and recruitment agencies. Participant 1's opinion is: *"I*

don't think they should handle senior positions differently, but they do" (Appendix G, P1:AD3). She gets support from participant 3's comment: "*They should follow the normal advertising route*" (Appendix G, P3:AD3).

When dealing with recruitment agencies, organizations should make it clear that they are intending to have the positions filled by women. Wording of the advertisements should be attractive to women, said participants 2, 11, 12 and 14). Participant 2 suggests "*If you deal with recruitment agencies or place adverts, make sure you inform them that you prefer women"* (Appendix G, P2:J7).

The recruitment process of the organizations should govern the entire process and ensure that appointments are made fairly. This was stated by participants 5, 7, 11, 12 and 15. Organizations should have succession planning in place, as suggested by participant 12: "*There might be people internally that is working towards that goal of becoming a senior manager; people should be ear marked for senior roles, succession planning must be in place, in line with the strategy"* (Appendix G, P12:AB4).

Finding 38: Senior management positions are not handled in the same manner as other positions in terms of recruitment, irrespective of the gender of the candidate.

The following section focuses on the networking patterns and networking preferences of females in the IT sector in order to determine whether there is an impact or influence on women's career advancement and senior management appointments in IT.

Sub question 2.3: What impacts do female networking patterns have on the recruitment of women for senior management positions in IT?

Interview question 2.3.1: What do you think of networking outside office hours? I.e. playing golf with male co-workers?

Figure 4.4 is a representation of the participant's marital status and how they feel about networking outside office hours. Contrary to expectations, five of the eight married participants (1, 2, 4, 12 & 15) indicated that they don't have issues with networking after hours and are "OK" with it. Participant 2 comments: "*I love to take a customer out. I don't have a problem with that*" (Appendix G, P2:AF3). This is echoed by participant 4: *"I don't have problems with socializing after work*" (Appendix G, P4:AF6).

Marital status
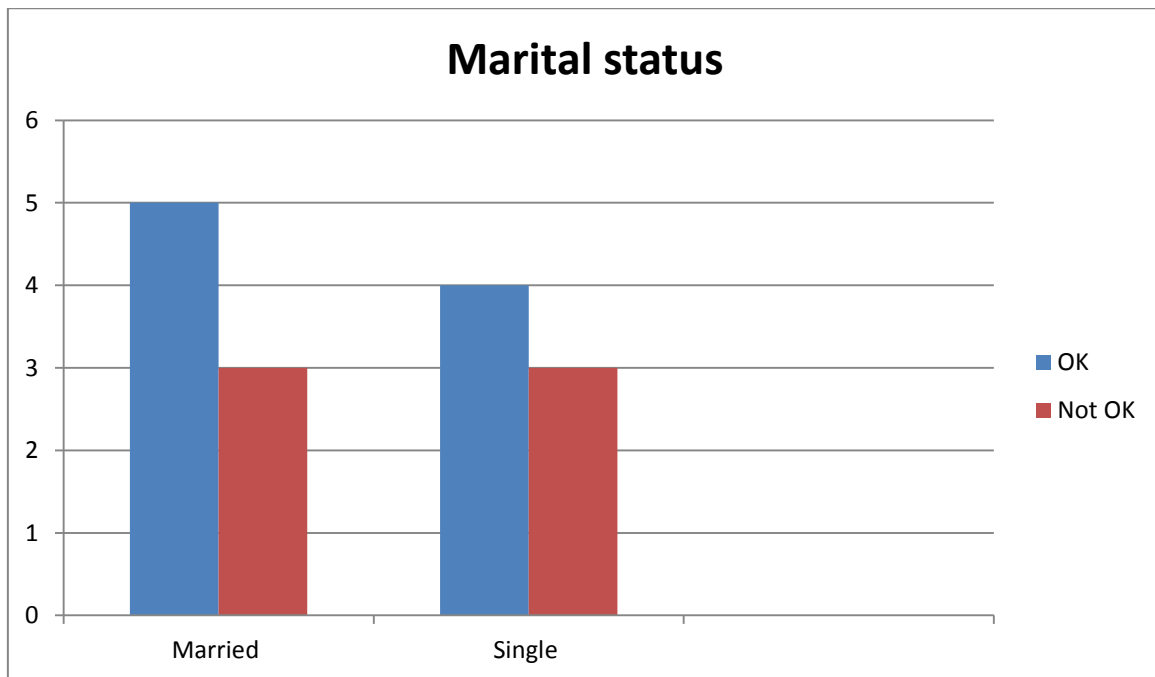
Figure 4.4: Networking of the participants after hours

Although the married women said that they will network after hours, they did mention that they have less time available to do so and household responsibilities prevent them from doing it more often. They alluded to the fact that networking after hours in a bar can lead to rumours that can have negative effects on work and family life. However, that will not prevent them from networking after hours. Participant 1 comments: *"I do it sometimes, but I must make arrangement 2 days in advance; take my family into consideration before I can go out at night. It has an impact"* (Appendix G, P1:AF11). Four of the seven unmarried participants (3, 6, 8 & 13) indicated that they are OK to network after hours, but are hesitant to do so due to religious reasons and the possible impact that rumours may have on their career advancement. Participant 9 explains: "*Networking is important, but lines get blurred, so you must maintain boundaries. From a religious point of view; I am hesitant to do so"* (Appendix G, P9: AG6)*.* Although single women have more time to network after hours, these single women are more hesitant to do so than the married women.

The importance of networking is highlighted by seven of the participants (4, 8, 9, 10, 13, 14 & 15). This shows that women do realize the benefits and importance of networking. Participant 8 states that "*It is important to network; you can socialize with customers and strengthen relationships. Networking helps to fit into an organization"* (Appendix G, P8:AA2). Participant 14 comments: "*Trust and relationships are built during networking"* (Appendix G, P14:AF5). However, most networking methods are seen as male methodologies, like playing golf, and therefore men are better at networking. This statement is supported by participant 12: "*Networking methods are male methodology, so it is difficult for women to move past it"* (Appendix G, P12:AD5).

Finding 39: Married and single women network after hours.

Finding 40: Single women are more hesitant than married women to network after hours.

Finding 41: Women do realize the importance of networking.

Interview question 2.3.2: What is your opinion with regards to referrals through networks during recruiting process?

The majority (80%) of the participants (1, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13 & 15) think it is acceptable to do referrals through networks and that it actual works. However they do have an issue if the proper recruitment process is not followed and the person gets appointed unfairly. Participant 1 commented that *"a lot of appointments were referrals and it just proves to be successful. It definitely works"* (Appendix G, P1:AH5). The opinion is echoed by participant 5: "*An interview is not long enough to learn to know a person, I found referrals make it easier recruiting the right person*" (Appendix G, P5:AH3). Participant 12 agrees that *"there is no harm in that. HR should go through the process; it is HR discretion to see if the person is suitable"* (Appendix G, P12:AF2). Nine of the 15 women interviewed were appointed in their current jobs based on referrals. The benefits of referrals through networks are pointed out by these participants. Being referred by someone that knows the applicant allows the organisation a better chance of choosing the right candidate, as interviews tend to be too limiting to get to know the applicant. Participant 6 said: *"Nowadays it is not what you know, but who you know. Knowing someone in the inner circle makes it much easier to get that job. You just have to get your foot in the door to get an interview"* (Appendix G, P6:AG2). When you are appointed through a referral from a network, it means you know at least one person in the organization, which can make settling into the new environment easier.

Finding 42: Networks are seen as important and referrals through networks do work.
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Interview question 2.3.3: Which gender do you tend to network with more at work? What is the reason/s for your response?

To join less powerful networks have the potential to restrain a person's chances for career advancement and promotion. However, no evidence could be found in this study that the participants joined less powerful networks as eleven of the participants (2, 4, 5, 6, 7, 10, 11, 12, 13, 14 & 15) network with both genders and don't have a preference of a specific gender to network with. Participant 14 comments: *"I have no preference. I don't mind networking with male and female. It depends on the quality of the relationship that I can get out of it"*

(Appendix G, P14:AK3). Participant 12 notes that "*I have no preference. You must socialise with everyone"* (Appendix G, P12:AI2)*.

*O*nly two participants (3 & 9) prefer to network with females. Participant 9 said: "*From a religion point of view, I am more comfortable with women"* (Appendix G, P9:AL2) and Participant 3 prefers networking with females: *"I rather network with females. I connect more with females; males are not sociable"* (Appendix G, P3:AL3).

Two participants (1 & 2) concede that, although they don't have a preference, they network predominantly with males because of the unavailability of other females at management level. Participant 1 comments that "*at my place of work there are not many women that I can network with. I network with my direct manager, which is a man. The business partners are mostly men, so I have to network with men. There are a few women at work, but they are not in management positions"* (Appendix G, P1:AL3). These interviewees pointed out that it is not a matter choice, but the limited availability of female managers that forces them to network predominantly with men.

Finding 43: Females do not join less powerful networks**.**
Finding 44: Some females network predominantly with males because of the unavailability of other females at senior management level**.**

Women are described as natural networkers, but they tend to network to build relationships and connections, whereas men network to position themselves and for transactional reasons. The participants in this study join networks for skills development, to meet people that can help with their career advancement, and for social associates. Participant 5 describes her reason for networking: "*It is a good way to utilize the opportunity to connect with the right people"* (Appendix G, P5:AK5). Number 12 said: *"I get different perspectives by networking with different levels in the organization"* (Appendix G, P12:AH7)*.

Finding 45: Women network to build relationships and connections.

Finally the women were asked whether they think women have to work harder to get recognized and appointed in senior management positions in an IT environment.

Interview question 2.3.4: In your view does the fact that an environment is predominantly male result in women having to work harder to prove their worth in order to get promoted?

Women do have to work harder, and the interviewees have strong opinions about it. This is borne from the fact that 11 participants (1, 2, 3, 5, 6, 7, 9, 10, 12, 13 & 14) responded to the

question. Participant 1 notes that she not only has to work harder, but must physically raise her voice before men listen to her — "*I have to speak a little louder; I have to prove that I can do it. You must do things twice or thrice before they trust that you can do it. Women must work harder, they must say it louder to prove themselves*" (Appendix G, P1:AV4). Participant 6 agrees: "*Yes, we have to work harder to prove ourselves*" (Appendix G, P6:AU4). These participants believe that women want to prove themselves in a male dominant environment and therefore work harder. IT is portrayed as a man's world and therefore women think they must work harder to get some recognition.

Participant 4, 7 and 12 think because women have dual roles as both mother and career woman, they tend to work harder — not even realising how much more they have to put in to be recognized. Participant 4 states: "*Women tend to work harder by nature. A woman's job is never done*" (Appendix G, P4:AV4). Participant 15 feels that women do not necessarily work harder, *"but the price you pay might feel more"* (Appendix G, P15:AU2), implying that women feel guilty for — on the one hand — not spending enough time with their family, while on the other hand feeling guilty for not being available 24/7 for work purposes. Participant 11 argues that men tend to socialize more and in most cases do not do the administration work themselves, but have a secretary doing it for them while women prefer to do the administration part personally. This might give women the impression that they have to work harder than their male counter parts. She comments: *"Male in a senior position will phone his PA and give instructions, and females are used to do it themselves"* (Appendix G, P11:AR6).
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Finding 46: Women have to work harder to get recognized in an IT environment.
Finding 47: Women sometimes have to take on male characteristics to be heard.
Finding 48: Women want to prove themselves in a male dominant environment**.**
Finding 49: Women are of the opinion that they inherently work harder than men**.**

The following research question focuses on the participant's motivation or reasons for choosing IT as a career and determines whether it impacts the imbalanced representation of women in senior management positions. It also explores whether the women in the study are motivated and driven to become senior managers.

Sub question 2.4: What is the impact of the career choices of females on the imbalanced representation of women in IT?

Interview question 2.4.1: Why did you decide on the career direction you took?

This question explores the reasons why the women chose IT as a career option, and whether their passion and the interest in IT was a driver in their career choices.

Only participants 2 and 6 chose IT as a career because of a passion for and interest in IT. Participant 2 recounts how *"IT was very interesting for me, I found it very exciting. What prompted me were the opportunities I could get from being in IT, so I took it"* (Appendix G, P2:AN2). Participant 6 said her interest goes back to when she was a little girl and always enjoyed IT. She wants to prove that women can be successful in IT and therefore she chose it as a career.

Not one of the other 13 participants chose IT as a career option because of their passion or interest in it — for most it was not even a conscious decision. Participant 14 *"… landed in IT by chance"; she* is a qualified teacher and only after a colleague applied for an IT position on her behalf did she change her career direction into IT. Participant 12 tells that "*it was not a conscious decision to go into IT for me, a friend thought I would be good in IT"* (Appendix G, P12:AK2)*.* Participant 10: said "*I just drifted into that direction"* (Appendix G, P10:AN2). Number 12's comment is: *"I never thought that I can make IT my career; I just ended up in IT"* (Appendix G, P12:AK2)*.*

The idea that IT could provide job security is attractive to participant 11. She describes her reason for selecting IT as a career option: "*Because of the high unemployment rate, I looked at a career option where there was many opportunities, so I chose IT"* (Appendix G, P11:AL2)*.*

Three participants (1, 7 & 10) said their choice of IT as a career option was influenced by friends. Participant 7 relates: "*I did not grow up with PCs; it was not part of our household and was never showed to us. I didn't play with computers or technology when I was a child, so I never even consider IT as a career option*" (Appendix G, P7:AN2).

Five participants did not have IT related degrees or qualifications in IT, but pursued careers in IT. At some point in time they were given an opportunity within the IT field which they seized and built successful IT careers. These women only got their IT qualifications later on in their careers — which indicates that they never consider IT in the beginning when they made their career choices.

Finding 50: Women choose IT as a career option because of other reasons, not because they are passionate or interested in IT.

Interview question 2.4.2: Who or what had the biggest impact on your career choice?
Several factors and groups can influence the career direction a person takes, and the aim of this question is to determine who or what had the biggest impact on the career choice of

these women. Negative influences may discourage a person from selecting a specific career option. Therefore this question the researcher also aims to determine if there are any negative influences that dissuade these participants from selecting IT as a career option. Figure 4.5 shows how the influence of family and friends, previous managers, and a speaker at school, played a role in their career choices.
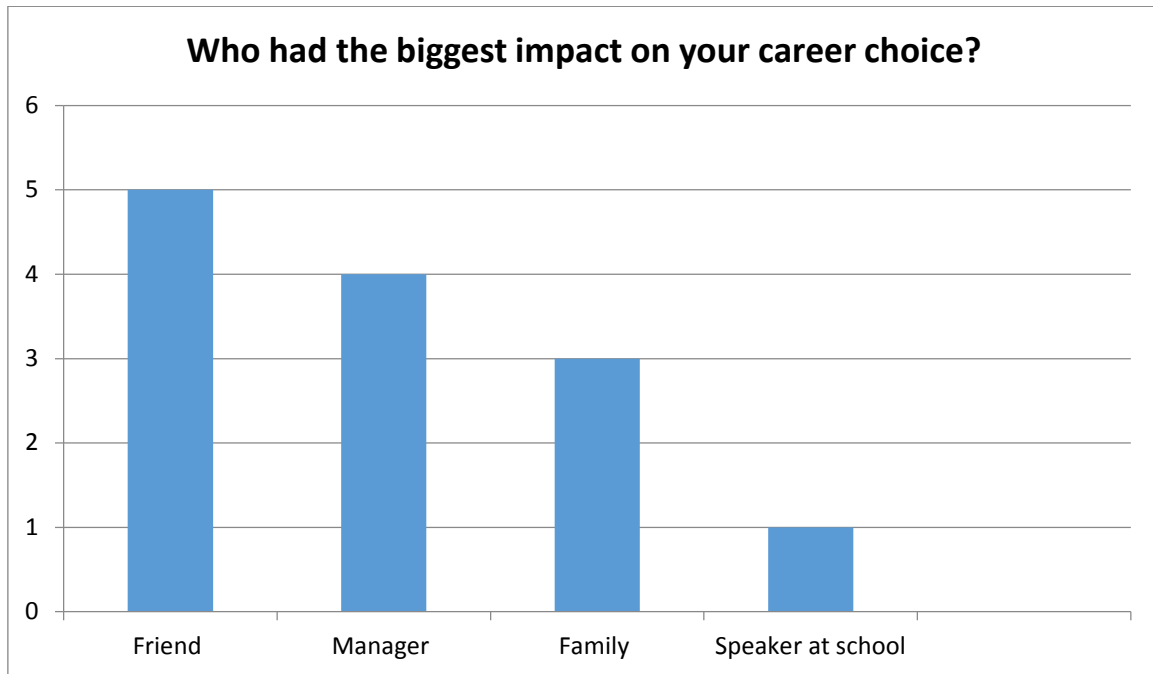
Figure 4.5: Main influence on career choices

Friends (five instances) had the biggest influence on the career choices of this participant group. Four participants (2, 3, 4 & 14) never considered an IT career until a previous manager suggested it to them. Participant 2 stated that *"the manager, who took the risk and gave me the position, because I had no IT qualifications, had the biggest influence"* (Appendix G, P2:AP2). Number 13 conceded that *"it was not my own decision to go into IT; it was one of my previous managers who suggested it"* (Appendix G, P13:W2).

No evidence could be found that participants were ever discouraged from studying IT. The influence from family members, like a dad or brother in law, indicates that family plays an important role in the career choices the women made. For participant 5, *"my father told me what to study"* (Appendix G, P5:AM3) and participant 15 explained: *"My Dad was a Network Specialist, my brother and sister were Developers. All my family are in IT. I pushed against it because my father was in IT, I didn't want to be there as well, but I ended up in IT"* (Appendix G, P15:AO2). Friends also has a big influence on career choices as evidenced in participant 1's comment, *"friends influenced me"* (Appendix G, P1:AP6).

Finding 51: Friends, managers and family have the biggest influence on the career choices women made.

Finding 52: No evidence was found that any of the participants were ever discouraged from studying IT.

4.6 Summary of findings

Table 4.8 is a summary of the findings and will be discussed in Chapter 5 in relation to current and previous literature.

Table 4.7: Summary of findings

Research Question 1	What are the reasons for the under-representation of women in senior management positions in the IT sector?
Sub question 1.1:	
To what extent are women still under-represented in the IT sector in SA?	**Finding 1:** More or less equal spread between men and women in junior management positions.
	Finding 2: More men than women still hold senior management positions within the IT environment of the selected companies
	Finding 3: The majority of participants want to see more women employed in senior management positions.
	Finding 4: Some participants do not have a gender preference and want to see the best person appointed in the positions.
	Finding 5: In the view of the participants, women can multi-task, are more flexible, and accept more responsibility than their male counterparts.
	Finding 6: Female managers are perceived to have better listening, interpersonal, and people skills than male managers.
	Finding 7: Women are perceived to be less task-oriented than men.
	Finding 8: Men are perceived as autocratic, with less empathy than women.
	Finding 9: Men lack confidence in women in management positions.

	Finding 10: According to the participants, female managers manage conflict more effectively and efficiently than men.
Sub question 1.2:	
Why are women under-represented in senior management positions in IT in SA?	**Finding 11:** The legacy in the IT industry where men hold senior positions works against women wanting to advance their careers. **Finding 12:** A contributing factor for the imbalance of women in senior positions is women's reluctance to take up a technical career such as IT.
	Finding 13: There are a limited number of women with IT qualifications entering the industry.
	Finding 14: A lack of ambition and drive to advance to senior positions has been identified as a contributing factor.
Sub question 1.3:	
How does organizational culture impact women's advancement to senior management positions?	**Finding 15:** Organizations are open to women in IT.
	Finding 16: Organizations allow opportunities for women in IT.
	Finding 17: Women in the IT environment do not want to be treated differently from their male counterparts.
	Finding 18: Women need mentoring and development programs that will assist in advancing to senior management levels.
	Finding 19: Infrastructure and facilities at work do not support work life balance.
	Finding 20: There are no support groups for women with family responsibilities.
	Finding 21: Recruitment agencies are not placing enough emphasis on the need and opportunities for women in the IT industry.
	Finding 22: Dominant management styles of male managers impact women's career advancement.
	Finding 23: Equal opportunities are not given to all women in the IT industry.

	Finding 24: Women blame themselves for the lack of advancement in their careers.
	Finding 25: Open organizational culture is important for women to advance in their careers.
	Finding 26: Personal drive helps some participants to progress in their careers.
Sub question 1.4:	
What strategies have IT organizations implemented to advance women to senior management positions?	**Finding 27:** There are no or little gender specific development programs in organizations, according to some participants.
	Finding 28: Gender diversity is not a strategic intent in most organizations.
Research question 2	**How does the recruitment process for senior management positions affect the imbalances of women in IT?**
Sub question 2.1:	
What are the reasons why females are not successfully appointed in senior management positions in IT?	**Finding 29:** Not enough women apply for senior positions.
	Finding 30: Women are of the opinion that they are not qualified enough for senior positions.
	Finding 31: Women may be interested in applying for more senior positions.
	Finding 32: Personal circumstances are important when women consider applying for senior positions.
	Finding 33: The lack of women applicants is not necessarily because of environmental factors such as company culture or policy and procedures but of women's attitudes towards their careers.
Sub question 2.2:	
How do organizations recruit for senior management positions?	**Finding 34**: Much emphasis is on technical skills rather than leadership skills, people skills, communication skills, and integrity when recruiting for senior positions.
	Finding 35: A male-dominated interview panel will not necessarily influence women's chances of being selected during an interview.
	Finding 36: According to most participants,

	women will use their feminine charm to manipulate male dominated interview panels to their advantage.
	Finding 37: Males are perceived to select another male over a female during an interview.
	Finding 38: Senior management positions are not handled in the same manner as other positions in terms of recruitment, irrespective of the gender of the candidate.
Sub question 2.3:	
What impact do female networking patterns have on the recruitment of women for senior management positions in IT?	**Finding 39:** Married women and single women network after hours.
	Finding 40: Single women are more hesitant than married women to network after hours.
	Finding 41: Women do realize the importance of networking.
	Finding 42: Networks are seen as important and referrals through networks do work.
	Finding 43: Females do not join less powerful networks.
	Finding 44: Some females network predominantly with males because of the unavailability of other females at senior management level.
	Finding 45: Women network to build relationships and connections.
	Finding 46: Women have to work harder to get recognized in an IT environment.
	Finding 47: Women sometimes have to take on male characteristics to be heard.
	Finding 48: Women want to prove themselves in a male dominant environment.
	Finding 49: Women are of the opinion that they inherently work harder than men.
Sub question 2.4:	
What is the impact of career choices of	**Finding 50:** Women choose IT as a career

females on the imbalanced representation of women in IT?	option because of other reasons, not because they are passionate or interested in IT.
	Finding 51: Friends, mangers and family have the biggest influence on the career choices women made.
	Finding 52: No evidence was found that any of the participants were ever discouraged from studying IT.

Through the categorization of the emergent keywords and concepts, the following five themes developed:

1. Women's networking patterns,
2. Recruitment for senior management positions in IT,
3. Organizational factors,
4. Career advancement of women in IT, and
5. Career choices of women in IT.

The keywords and concepts were clustered to form the above themes according to the following scheme:

- Relationships, connections, referrals, networks and socializing were categorized together to make up theme one: **Women's networking patterns.**
- Advertisements, recruitment, interviewing process, qualifications, application, and skills are clustered under theme two: **Recruitment for senior management positions in IT.**
- Organizational environment, organizational culture (such as the people's behaviours), work-life balance, and family responsibilities are clustered under theme three: **Organizational factors.**
- Keywords such as ambition, dominance of men, self-confidence (and lack of self-confidence), skills, development programs, self-awareness, mentoring, female characteristics, and male characteristics made up theme four: **Career advancement of women in IT**.
- Evolving from keywords such as technical skills, studies, opportunities, and subject choices comes theme five: **Career choices women make**.

A summary of these themes is given below and will be discussed in detail in the next chapter.

4.7 Summary of themes

1.   Women's networking patterns:

Findings from this study show that both married and single women network after hours, although single women are more hesitant about it. The women are of the opinion that referrals through networks work, provided that the recruitment processes are adhered to. No evidence could be found that the participants joined less powerful networks as the females do not network with a specific gender in mind. Only two of the females are forced to network predominantly with males because of the unavailability of other females at senior level. Building relationships, skills development, and social connections are the main reasons why these women network.

2.   Recruitment for senior management positions in IT:

The way recruitment agencies advertise and promote senior management positions does not place enough emphasis on the need for women in the IT industry. When senior positions do become available, not enough women apply for it — only some of the women interviewed responded that they would definitely apply for more senior positions. Women think that they are not qualified or experienced enough and therefore do not apply for senior management positions. Only a limited number of women with IT qualifications enter the industry, which limits the number of available candidates to select from during the recruitment process. When recruiting for senior positions in IT, a lot of emphasis is placed on technical skills and not on leadership skills, people skills, communication skills, or integrity. Although the IT sector is dominated by men, a male dominated interview panel will not necessarily influence women's chances of being selected. The women in this study are of the opinion that they will use their feminine charm to manipulate male dominated interview panels to their advantage.

3.   Organizational factors:

It was found that organizations are open and do welcome women into the IT sector. IT organizations give women opportunities which they use to their advantage. IT organizations don't have infrastructure, facilities, and support groups available to support work-life balance for working mothers. There are no gender-specific development programs for women in organizations. This implies that gender diversity is not a strategic intent in most organizations. The women in this study believe that they have to work harder to get recognized and do so because they want to prove themselves in a male dominant environment.

4.   Career advancement of women in IT:

The legacy in the IT industry, with men holding the senior positions, works against women wanting to advance their careers. However, some women showed a lack of ambition and drive to advance their careers to senior management positions. This emerged as another reasons why women are underrepresented in senior management positions within IT. The dominant management style of male managers is considered to have an impact on women's career advancement. Some women put the blame for slow career advancement on the time taken off during the child rearing period, thus blaming themselves for not progressing as fast as their male colleagues. The lack of mentorship and development programs for women in organizations is impacting on career advancement. There are no gender-specific development programs to assist women in developing and advancing their careers. Networking is seen as an important factor for career advancement.

5.   Career choices of women in IT:

Women's reluctance to take up technical careers such as IT does contribute to the imbalance of women in senior positions. None of the participants were discouraged from studying IT. They were mostly encouraged by friends and previous managers to pursue a career in IT. Passion or interest in IT is not why these women chose IT as a career option.

CHAPTER FIVE

DISCUSSION OF RESULTS

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│      Themes developed       │
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│       Theme 1: Women's      │
│      networking patterns    │
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│   Theme 2: Recruitment for  │
│      senior management      │
│        positions in IT      │
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│   Theme 3: Organizational   │
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│      Theme 4: Career        │
│   advancement of women in IT│
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│     choices of women in IT  │
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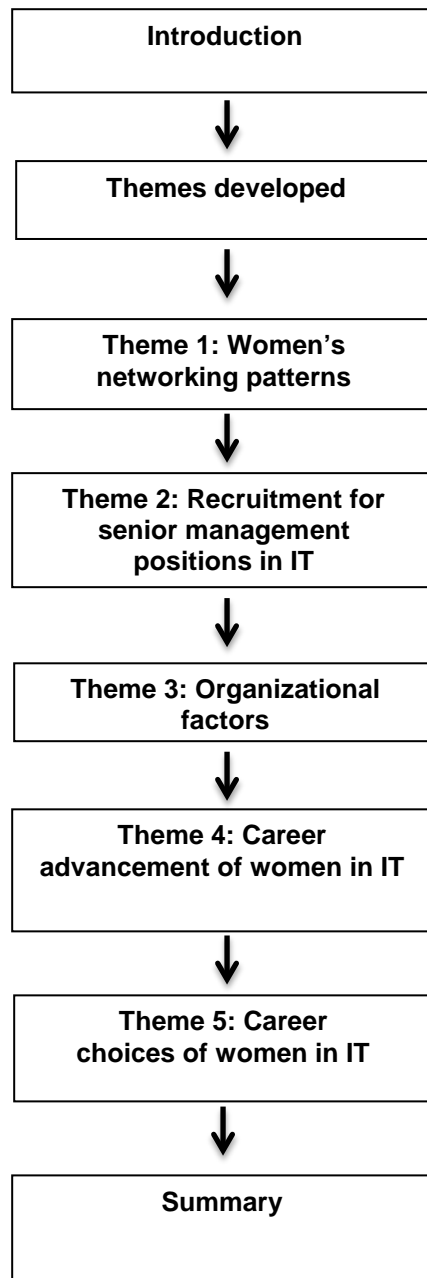
Figure 5.1: Graphical representation of Chapter Five

5.1 Introduction

After the results from the participant interviews had been analysed, and after clustering the keywords and concepts, the following five themes developed:

1. Women's networking patterns,
2. Recruitment for senior management positions in IT,
3. Organizational factors,
4. Career advancement of women in IT, and
5. Career choices of women in IT.

In chapter 5 these themes are further considered. Findings in this study are also compared with previous studies and discussed in detail.

5.2 Themes developed

5.2.1 Theme 1: Women's networking patterns

After hours networking can be problematic for women, especially if they are married or taking care of children. Socializing around a bar after hours, or playing golf while doing business is common in networking. However, such forms of informal networking often exclude women. This has been identified by past studies as a stumbling block in women's career advancement (Ignace & Chow, 2009; Durbin, 2011). Contrary to Wang's expectation that married women have less time to network after hours (Wang, 2009) and have concerns about possible rumours of a sexual nature, this study indicates otherwise. It was found that both married and single women are open to — and have participated in — networking activities after hours. Furthermore, it was found that single women are more hesitant to do so. A possible explanation can be the influence of religion — four of the single women in this study are of Islamic religion. In the Islamic religion single women are strictly safeguarded from anything that could be perceived as immoral activities through unnecessarily interacting and mingling with males. It may be as a result of this that they will not meet alone with male colleagues.

Durbin (2011) holds that the lack of access to male networks is detrimental as men continue to hold power in most organisations. She concludes that women are not as much integrated in organisational networks as males. Foust-Cummings *et al. (*2008) also find that women are often excluded from key networks of decision makers because they tend to network with people in lower positions. They further contend that women usually occupy lower positions and that this limits their ability to connect with powerful people in an organization. However, no evidence could be found that the women in this study were ever excluded from key networks or that they joined less powerful networks. One could therefore possibly consider

that networking within the organization does not have an impact on the imbalanced representation of women in senior management positions in IT.

Past studies show that females tend to network with males since males hold key positions in organizations and have access to promotional information. According to Singh, Vinnicombe and Kumra (2007), it seems beneficial for women to network with men. On the other hand, Rothenberg (2009) found that men and women tend to network primarily with the same sex. Interestingly, the findings from this study supports neither Singh *et al.* nor Rothenberg; it was found that these women don't have any gender preference when they network. Except for two participants who have to network predominantly with males because of the limited availability of other females at senior management level, the rest of the participants network with both genders.

Durbin (2011) claims that men and women have different reasons for networking. Women join networks for skills development, to meet people that can help with their career advancement, and for social associates, whereas men join networks for business and career benefits. Wang (2009) comes to similar conclusions — women join networks to share their experiences, to have access to opportunities, connect with other professionals, backing the advancement of women, and to acquire new friends. The findings in this study support those of both Durbin and Wang; we found that the women network to build relationships, skills development, and for social connections.

McDonald (2011) suggests that men hold more connections that land job offers, and they get their jobs more often through their informal networks than women do. Rubineau and Fernandez (2010) conclude that in a male dominated environment like IT, it is likely that more male referrals will be seen, regardless of the referrer. Simard and Gammal (2012) conclude that hiring through networks and referrals can reinforce inequality and undermine gender diversity in organizations — if not managed properly. People have a tendency to associate with others who are like them. In an IT environment this can lead to a situation where males, once hired, will go on and hire more males.

During this study two contradicting findings emerged: Nine of the participants are of the opinion that a male dominated interview panel will not influence their chances of being selected during an interview. However, the rest of the participants feel that males prefer to select another male over a female during an interview. Interview question 2.2.2 was reviewed to determine if there was a possibility that the question could have been ambiguous, possibly causing the two contradicting findings. However, the researcher is satisfied that the question

was not ambiguous, and that the participants' responses are purely based on past experience during interviews.

Broadbridge (2010) states that senior management positions are often filled by decision makers who rely on informal backing of a candidate in their own network. That is why a person's social capital — e.g. who you know at senior level — becomes important. Findings from this study are in line with Broadbridge's — participants feel that senior management appointments are not made through the formal selection process, but rather through informal networking and referrals.

5.2.2 Theme 2. Recruitment for senior management positions in IT.

Companies with hiring processes that is biased towards gender diversity are more successful in attracting females. Simard and Gammal (2012) found that job descriptions send out signals that influence both the recruit and recruiter. If the job description is associated with typical masculine characteristics e.g. competitive or assertive, recruiters are more prone to hire men than women, and more male applicants will apply. Male characteristics, such as being tough and competitive, amongst others, are deemed to be necessary for success in a male dominated environment, and these lower women's chances of being selected for a leadership position. Simard and Gammal is of the opinion that how a company advertises senior management positions will define the candidates that will be available for selection in these positions. Findings in the current study correlate with those of Simard and Gammal. The research in this study finds that the way recruitment agencies advertise and promote senior management positions are not placing enough emphasis on the need for women in IT, and consequently do not attract enough women. It was further found that when senior positions do become available, not enough women apply for them.

Ridgeway (2011) found that men are perceived to be more competent than females — even if their qualifications are the same. Consequently the men are seen as more prominent in a male dominated environment like IT. Appelbaum *et al.* (2011) find professional women being in the minority in IT. They often lack the self-confidence which is common in male-dominated environments such as IT, and this negatively influences their recruitment process. Women think they must meet most of the requirements in a job description before they feel comfortable enough to apply. Men, on the other hand, will apply for a new job with a much lower match between the job requirements for a senior role and their own experience (Kenexa, 2013). The women in this study are also of the opinion that they are not qualified enough, and therefore do not apply for senior positions. This can be interpreted as a lack of confidence. It is possible that the women themselves believe that men are more competent

and therefore think they need more qualifications to compete in a male-dominated environment.

In research by Peterson (2010) it was found that women in a male dominated environment will downplay their technical competence as a way to be accepted. They do not sell their technical competency enough during the interviewing process, thus putting themselves at a disadvantage.

No evidence could be found in this study that women downplay their technical competencies. In fact, it was found that emphasis is placed on technical skills during the recruitment process rather than on leadership, communication, or people skills which are the critical skills required to be successful in senior management positions.

Feminine charm as a negotiation tactic has been used by women throughout the centuries. Kray, Locke and Van Zant (2012) describe feminine charm as friendliness coupled with flirtation. They state that *"the aim of feminine charm is to make an interaction partner feel good to gain compliance towards a broader interaction goal".* It was found that women achieve better negotiation outcomes when they combine power tactics with warmth — which may stop short of flirtation. The women in this study understand the power of feminine charm quite well, as they boldly state that they will use such charm to manipulate male-dominated interview panels to their advantage.

Research has shown that people tend to hire individuals who are like them (Rubineau & Fernandez, 2010; Simard & Gammal, 2012). During the evaluation of potential candidates, interviewers have a tendency to favour those with educational and cultural backgrounds that are like their own, thus leading to a workforce with similar traits (Rubineau & Fernandez, 2010). The present study supports these findings. With IT being a male-dominant environment, males get preference over women during the recruitment process. People tend to hire individuals who are like them; men select men for a senior IT positions. This indicates that the recruitment process has a direct impact on the imbalanced representation of women in senior positions.

5.2.3 Theme 3. Organizational factors

Organizational factors such as flexible working hours and work life balance can play a role in women's advancement to senior positions (Kenexa, 2013). Work-life balance involves the need to simultaneously balance the emotional and behavioural demands of formal work with family responsibilities. It is when a woman has to attend to the responsibilities of child and family care, on top of work obligations, that work-life balance becomes important. To

successfully achieve this many women require a work environment that provides flexible working conditions — like working from home, working part-time, reduced working hours, etc. However, this study found that IT organizations typically do not have the infrastructure, facilities, and support groups available to support a healthy work-life balance for working mothers. In the South African context most women are still the primary caretakers of the family. This might be a contributing factor to why only four of the women said they will consider applying for senior management positions. With the added responsibilities and pressures that come with senior management positions, a culture that supports work-life balance can help women to better manage the demands of senior management positions and family obligations. Not having support for work-life balance in the working environment can put women off the willingness to advance to senior management positions.

In a study by Catalyst (2007) it was found that women have to work harder to prove that they are as competent in a male-dominated environment as their male counterparts. Women have to work twice as hard, putting in more effort and longer hours, to get the same level of recognition. Simard *et al. (*2009) state that organization with high achievement-oriented cultures — such as IT organizations — can lead to employee burnout. The current study agrees that women have to work harder to get recognized — and actually do so to prove themselves in a male-dominated environment. However, there is not enough evidence to prove that it caused burnout in any participants. Only one participant alluded to women becoming over-tired and emotional because they are working too hard. There is however a connection between working long hours and work-life balance, especially for those women with family obligations, who aspire to become senior managers in an IT environment.

Organizations where the environment is not open and welcoming to women can negatively influence women who want to enter or advance their career in IT. Soe and Yakura (2008) came to the conclusion that, because more men than women are hired and promoted in IT organizations, the perception is that IT organizations are unfriendly and not welcoming to women. The opposite was found in this study — organizations *are* open and *do* welcome women into the IT sector. The open culture emerged as a contributing factor to why some of the women in this study have excelled in their careers. Several women mention opportunities given to them, how they used these to their advantage, and how it helped them to advance their careers.

A report for McKinsey and Company compiled by Desvaux *et al.* (2010) states that development programs with a specific focus on women can help to overcome the barriers women encounter as they advance to senior management positions. An encouraging environment that is conducive for women to develop and advance their careers in a male-

dominated environment can greatly contribute to gender diversity. Clarke (2009), on the other hand, warns that gender-specific programs can tend to mould women into existing male-dominated cultures instead of adapting to the needs and requirements of women. Such programs might therefore not benefit women or gender diversity.

The current study found no skill-building or development programs aimed specifically at women in IT organizations. Several participants mentioned management development programs, but these are for both males and females, rather than programs tailored to assist women advancing in their careers. Based on responses from the participants, there is a need for such programs within IT organizations. They alluded to the fact that women-specific development programs can assist them to become aware of their abilities, learn from others in the environment, and better manage their careers in a male-dominated environment. There is also the potential that those women who participate in such development programs and achieve success, will plough back into the next generation and help develop more women. The absence of development programs aimed specifically at women can be interpreted as a lack of commitment from top management to make gender diversity a strategic intent in IT organizations. Gender diversity should be driven from the top, starting with the CEO of an organization. If the CEO personally commits to driving gender diversity, the chances are high that the rest of the organization will buy into the idea. Having the commitment of the CEO is an indicator of the organization's intent to increase gender diversity. However, it is not the case in the organizations where these participants work.

5.2.4 Theme 4: Career Advancement of women in IT

This study found that the legacy in the IT industry, where men typically hold the senior positions, works against women wanting to advance their careers. This concurs with the finding of Wood (2008) that management is seen as male territory and contributes to gender inequality. Almost half of the participants in this study regarded the absence of mentors as a hindrance to their career advancement, and emphasised the role mentoring could play in their career progression — if only they had a mentor. Tlaiss (2010) defines mentors as senior members in high positions in an organization, who are prepared to support individuals in ways that can assist in advancing their careers.

The participants in this study that had mentors in their careers, could not have been mentored by senior managers in their organizations — they indicated there was no formal mentoring programs. The finding is therefore in line with Tlaiss (2010) in that the limited number of females in senior positions can be attributed to the absence of mentors, which impacts on the career advancement of women to senior management positions. A study published by Dinolfo, Silva and Carter (2010) reports that women are more likely to develop

and provide support to others. Similar findings came out of the current study. All the women are keen on mentoring and do develop other people although not all of them received the benefits of being mentored. These women want to mentor others and do not feel threatened by doing so.

Most women experience an interruption in their career during child-bearing years and their career direction might be shaped by having children (Clarke, 2009). Demaiter and Adams (2009) conclude that the competitive nature of the IT industry makes it very difficult for women to return to IT after having children. IT is a fast paced environment where things change very rapidly. Workers must stay up to date, but this is not easy to balance with maternity leave and childcare. It takes dedication and hard work for women who took maternity leave to stay on top of their game. On their return they might be considered less capable than their male counterparts (Demaiter & Adams, 2009). Similar findings emerged from the current study. The women put the blame for their slow career advancement on the time taken off during the child bearing period. They therefore blame themselves for not progressing as fast as their male colleagues; they had to put their career on hold while taking time off during their child bearing period, which put them at a disadvantage and slowed down their career advancement.

5.2.5 Theme 5: Women in ITs' career choices

Shah (2011) found that males have a more positive attitude towards IT whereas females are intimidated by technology, which might influence their choice of a technical career such as IT. Parsotam (2010) finds that males have a higher level of IT career interest and therefor are more likely to select IT careers than females. The current study has come to similar conclusions. Women are reluctant to take up technical careers so there is not enough women entering the IT sector, hence there are not enough women in the pipeline to develop and appoint into senior management positions. The reluctance of women to take up careers in IT can therefore be considered as a contributing factor for the imbalance in representation of women in senior positions. Munro and Watt (2009) confirm that there is a gender difference in enthusiasm towards IT. Males think of IT as interesting, fun, and cool, compared to females who have the exact opposite perception — IT is not interesting, not fun, and not cool. Similarly, most of the women in the current study did not take up IT as a career because of an interest or passion for IT. For most it was not a conscious decision; they landed up in IT by chance or drifted into it.

Research has found that the availability of computers at home has a major influence on whether a girl child will decide to study IT (Shah, 2011); access to computers allows the child to explore what can be done on a computer instead of just using it for homework. It also

builds familiarity and the child becomes more comfortable using it. As PCs only became affordable in the 1990s, most of the participants in this study did not grow up with computers. It was never part of their household and the interest in IT was not sparked, so the era in which these participants grew up had an impact on their low interest in IT as a career choice. They did mention job security as one reason for IT as a career option. It was expected that they would have considered IT as a career prospect for the financial benefits (as IT is seen as a highly-paid career) but none of them alluded to IT is a financially lucrative career.

Shah (2011) finds that social influences, such as peer pressure, can play a major role in defining a person and influencing decision making. When women consider career options, the influence of peers (regardless of gender) can influence whether they will select IT as a career option. "Friends" was listed as the number one influence on the career choices of the participants in this study. Consistent with the findings of Trauth *et al.* (2008), this study confirms that family members do indeed influence whether a child will select IT as a career option. The fact that other family members (such as a father) pursued an IT career impacts the decision to take up a career in IT. It is clear that the influence of family members plays an imperative role in the career choices the women made. During this study no evidence could be found that the participants were ever discouraged in any way to pursue a career in IT.

In this chapter the findings of the current study were related to prior literature. The study helped to understand the factors that influence the imbalanced representation of women in senior management positions. The women acknowledge the importance of networking, and that their social capital does matter. The process to recruit for senior management positions has a direct impact on the imbalanced representation of women in senior positions. Women do not consider IT as career option and not enough women apply for senior positions when they do get advertised, which limits the pool of available resources to select from. Women's lack of self-confidence in their technical abilities hamper career advancement. Organizational factors such as work-life balance, long working hours, and the absence of women-specific development programs all negatively impact on the imbalanced representation of women in senior management positions, despite the finding that organizations are open and welcoming to women. Factors such as the legacy in the IT industry with men holding the senior positions, career interruption due to child bearing, and the absence of female mentors all impact on the career advancement of women.

5.3 Summary

Below follows a brief summary of how the findings in this study answered the research questions.

1. **Research Question 1: What are the reasons for the under-representation of women in senior management positions in the IT sector?**

   Sub question 1.1: To what extent are women still under-represented in the IT sector?

   From the findings it is evident that women are promoted to junior and middle level management positions. However, the results confirm that more men than women still hold senior management positions within the IT industry.

   Sub question 1.2: Why are women under-represented in senior management positions in IT?

   The legacy in the IT industry of men holding senior positions works against women wanting to advance their careers. Women's reluctance to take up technical careers — such as IT — is identified as a contributing factor for the imbalance. Another factor is the limited number of women with IT qualifications entering the industry, thus limiting the pool of women for promotion to senior management positions. The lack of ambition and drive from some women to advance their careers to senior management positions was found to be another reason why women are underrepresented in senior management positions in IT.

   The ways that recruitment agencies advertise and promote senior management positions do not emphasise the need for women in the IT industry. Furthermore, the dominant management styles of male managers are considered to negatively impact women's career advancement. Some women blame their slow career advancement on time taken off during the child bearing period, and thus effectively blaming themselves for not progressing as fast as their male colleagues.

   Sub question 1.3: How does organizational culture impact women's advancement to senior management positions?

   It was found that organizations are open and do welcome women into the IT sector, and opportunities are given to women in IT organizations, which they do use to their advantage. However, the lack of mentoring and development programs aimed specifically at women does impact their career advancement. There is a general lack of commitment to drive gender diversity from the top. Women have to work harder to

prove themselves in the male-dominated IT environment, which impacts on their work-life balance, especially for women with family obligations. IT organizations generally do not have the infrastructure, facilities, and support groups available to support a healthy work-life balance, which puts women off wanting to advance to senior management positions.

Sub question 1.4: What strategies have IT organizations implemented to advance women to senior management positions?

The absence of gender specific programs and the lack of mentors indicate that IT organizations do not have specific strategies in place to advance women to senior management positions.

2. **Research question 2: How does the recruitment process for senior management positions affect the imbalances of women in IT?**

Sub question 2.1: Why are females not successfully appointed in senior management positions in IT?

When senior positions do become available, not enough women apply for these positions, which limits the pool of suitable candidates. The lack of women's self-confidence in their skills is a contributing factor to why women are not appointed in senior positions. With IT being a male dominated environment, males are getting preference over women during the recruitment process; men select men with similar traits for senior positions.

Sub question 2.2: How do organizations recruit for senior management positions?

Senior management positions are not handled in the same way as the rest of the positions. It does not follow the normal recruitment process, but rather works on a referral basis. When recruiting for senior positions in IT, job advertisements do not emphasis the need for women enough. Organizations place too much emphasis on technical skills, and not enough on management and leadership skills.

Sub question 2.3: What impact do female networking patterns have on the recruitment of women for senior management positions in IT?

Networking patterns of females do not impact on the recruitment of women for senior management positions in IT. Informal — such as after-hours — networking is not seen as a stumbling block, or as excluding women. Married and single women are equally willing to network after hours. Women realise the importance of networking for career advancement, and do make use of referrals through networks. Women do not

join less powerful networks and they do not network with a specific gender in mind. They specifically network to build relationships and form connections.

Sub question 2.4: What is the effect of career choices of females on the imbalance in representation of women in IT?

Women are reluctant to take up careers in IT. They are not passionate about IT or think of it as interesting, hence fewer women select IT as a career choice. This reduces the pool of available women to advance through the ranks to senior managers. The era in which a person grew up has an effect on their selection — or not — of IT as a career option. The influence of friends and family plays a major role in considering career options.

The aim of the study is to explore the under-representation of women in senior ICT management positions, and the factors that contribute to the situation. This was done through exploring — by way of semi structured interviews — the insights, opinions, and suggestions of the participants in the study. The aims were achieved and more clarity was gained on the phenomena. The factors contributing to the under-represented position of women in IT were summarised in Chapter 5 above. Conclusion drawn from the current study and recommendations for future studies will be addressed in Chapter 6 blow.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

Introduction

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Conclusion

↓

Proposed guidelines

↓

Recommendations

↓

Limitations

↓

Further research

↓

Summary

↓

Self-reflection
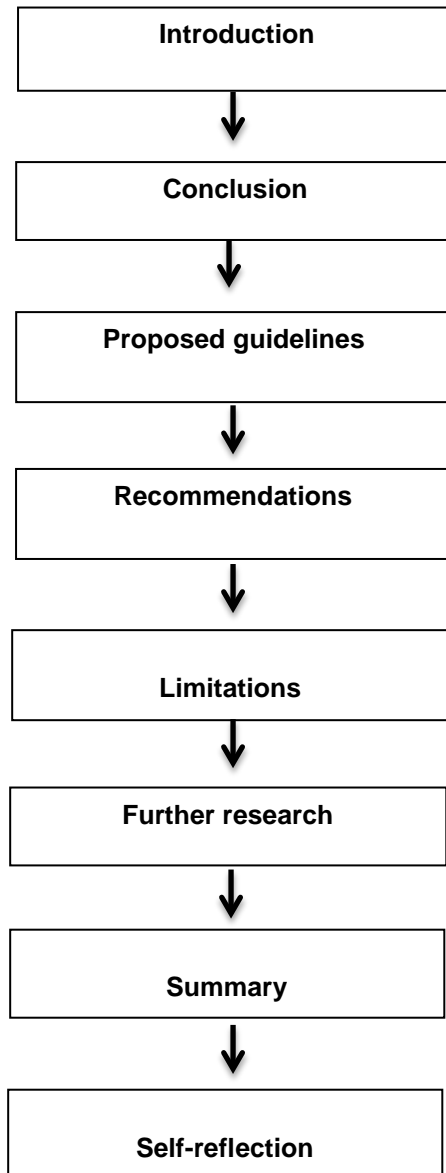
Figure 6.1: Graphical representation of Chapter Six

6.1 Introduction

This chapter summarises the conclusions and recommendations of the current study. It starts by indicating how the main research questions are answered and a summary of the findings. Thereafter follow guidelines and recommendations to improve the imbalance in representation of women in senior management positions. The chapter ends by presenting the limitations of the study and a final self-reflection by the researcher.

6.2 Conclusion

To answer the problem statement that **Women in South Africa are under-represented in senior management positions in the IT sector even with available incentives and directives to rectify the situation,** two main questions are asked:

i. **What** are the reasons for the under-representation of women in senior management positions in the IT sector?
ii. **How** does the recruitment process for senior management positions affect the imbalances of women in IT?

The answers to these research questions are summarised as follows:

i. The outcome of this study confirms that there is an imbalanced representation of women at senior management levels in the IT sector, but this is not because organizations are unwelcoming or not open to women. It was found that organizations are indeed open and welcoming and do give opportunities to women. Women currently working in the IT sector do not necessarily desire to advance into senior management positions. This further limits the pool of available candidates and thereby exacerbates the problem.
ii. The recruitment processes followed for senior management positions are negatively impacting the imbalanced representation of women in senior management positions.

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Factors that contribute to the imbalance in representation of women in senior management positions are as follows:

1) Senior management appointments do not follow formal recruitment processes, but are filled through informal referrals;
2) Not enough emphasis for the need of women in IT is placed in job adverts when recruiting for senior management positions;
3) When senior management positions become available, not enough women apply;

4) Women lack self-confidence and are of the opinion they are not qualified enough, and therefore do not apply for senior management positions;

5) Too much emphasis is placed on technical skills rather than management and leadership skills when recruiting for senior management positions in IT;

6) Men are getting preference over women during the recruitment;

7) IT work environments do not support healthy work-life balance and discourage women with family responsibilities from wanting to advance to senior management positions;

8) There is lack of skill-building and development programs aimed specifically at women in IT;

9) Gender diversity is not a strategic intent in IT organizations and is not driven from the top; there is no indication that CEOs are committed to increasing gender diversity;

10) The legacy in the IT industry, where men hold the senior management positions, works against women wanting to advance their careers;

11) The absence of formal mentoring programs and of female mentors impact women's advancement to senior positions;

12) Child bearing years, when women take time out of their careers, are impacting on their career advancement;

13) The lack of women taking up technical careers such as IT limits the pool of women available to develop and appoint into senior management positions;

14) The era in which a person grew up (in this study the women grew up before home computers became an everyday commodity) impacts career choices; and

15) Peer pressure (such as the influence of friends and family members) can influence whether a girl child will select IT as a career option.

6.3 Proposed guidelines

Companies need to enlarge their pipelines of available female candidates, and to assist women to advance in their careers. Thus, to help correct the imbalance in representation of women in senior management positions in IT, the following guidelines are proposed.

6.3.1 Proposed guidelines for women to advance to senior positions

i. Gain experience through on-the-job training — ask for assignments and projects to increase your skills set and knowledge.
ii. Gain access to people with power in the organization — build your network of influential people in the organization.
iii. Make achievements known and visible — make sure the right people are aware of your achievements.
iv. Obtain recognized qualifications — develop new skills through attending formal courses, training sessions, and workshops.
v. Do career planning — develop short term and long term career plans.
vi. Pursue career advice — seek advice from family, colleagues, and other contacts on how to advance in your career.

6.3.2 Proposed guidelines for companies to recruit and hire more women to increase available pools of candidates for senior positions

i. Expand recruitment avenues and increase the pool of women candidates — build relationships with organizations (such as universities) that have a good representation of technical women.
ii. Encourage technical women in the company to be role models and ambassadors — encourage them to speak or serve as committee members at conferences.
iii. Develop gender-diverse internship programs for technical positions — use internships as a prospective recruitment avenue for women.
iv. Strategically use social networks to increase the number of female candidates — leverage the power of social networks and media among employees; encourage females in the company to refer other female candidates.
v. Carefully manage the role of networks in recruiting — people tend to hire others who are similar to them. Males most probably have the connections that bring more job offers.
vi. Refine company recruitment practices — look at the practices that are intended to find the "right" people for the job. It is an opportunity for the company to advertise itself as a potential employer.
vii. Re-look at screening for cultural fit — although a candidate's values should be in line with those of the company, it must not be used to create same-gender teams.
viii. Have gender-neutral hiring processes — review job descriptions that are linked to typically male characteristics.
ix. Ensure the recruitment team is diverse — include both males and females when recruiting for technical positions.

x.   Set goals and targets for the number of women to be hired — the target for recruiting women should be in line with the company's strategy.

xi. Broadly advertise positions and have transparent criteria for the job — make hiring information available and ensure all candidates have equal access to it.

6.4. Recommendations

Based on the findings, the following suggestions are made to assist women who aspire to become senior managers in IT, girls who want to enter the IT environment, and IT organizations who want to get more value out of diversity. Organizations need to understand the value of diversity, make gender diversity part of their organizational strategy, and drive it from the top. Organizations need to create working environments that accommodate women's needs — such as career development programs and succession planning focussed on diversity for senior positions. Infrastructure and facilities at work must support good work life balance. Organizations should allow flexible working hours and offer more part time positions. This can ultimately lead to more women wanting to apply for senior positions as they know they can rely on a supportive working environment. Support groups for women at work with family responsibilities can be introduced.

Organizations should review their recruitment policies and strategies. When dealing with recruitment agencies, organizations must make their intentions clear — that the position must be filled by a woman. Job descriptions and advertisements must be written to be appealing and attractive to women. Recruitment processes must govern appointments for senior management positions and must not rely on referrals or networking only. Organizations can create a robust female leadership pipeline by creating internship programs for girls studying towards IT degrees.

Young girls should be inspired to take up technical careers such as IT when making their subject choices at school already. IT should be sold and marketed as an interesting, exciting, and cool career choice. Girls must understand that there is more to IT than what the stereotypes make one believe. It is long past the days when IT careers were for geeks and social outcasts only. Parents, teachers, and IT organizations also have an important role to fulfil in order to encourage young women to take up IT careers. The more women there are in the environment, the more there will be to advance to the top.

6.5 Limitations

Some limitations of the study should be noted. The sample size of fifteen was relatively small, so one should guard against generalization when interpreting the findings. No

comparison groups are included, and the findings are based only on the experience of women currently in IT. The experiences of these participants are not compared to other groups — e.g. those who have left the IT environment, young females considering a career in IT, or men within IT. Men were excluded from the study and have not been interviewed. This was done in order not to be influenced by the perceptions of men in the industry. However, it does warrant further research so as to compare and contrast the opinions of men on the topic.

6.6 Further research

A suggestion for future studies is to compare career advancement of women working in the software development environments compared to women in the infrastructure and technical environments of IT, as well as those who have left IT completely. Based on the comments received from the participants, it is the opinion of the researcher that women in the different environments encounter completely opposite experiences. Future research can also explore how formal IT education and credentials assist women to enter and advance to senior management positions in the IT sector — some of the participants in this study never had formal IT education before entering, but managed to successfully advance in their careers.

6.7 Summary

Problem Statement

Women in South Africa are under-represented in senior management positions in the IT sector even with available incentives and directives to rectify the situation.

It was confirmed that women are not equally represented at senior management level within the IT sector, but not because companies are not welcoming and open to women. The main reason is that women currently in the IT sector do not necessarily desire to advance to senior management positions, which makes the pool of available candidates even smaller and worsens the problem. The recruitment and hiring processes in senior management appointments are not helping gender diversity and are negatively impacting the imbalanced representation of women in senior management positions.

Aim of the study

The aim of the study is to explore the under representation of women in senior management positions in the IT industry in South Africa, as well as the contributing factors that impacts this phenomenon. This exploratory study is aimed at gaining deeper insight into previously identified barriers and new factors that impact and constrain women from advancing to senior management positions in the IT sector. The outcomes of this research are used to provide

valuable information and to propose guidelines in order to assist IT organisations and IT recruitment companies to build strategies for the employment of women at senior level and to promote IT as a career for women.

The aim of the exploratory research was achieved by using a qualitative research design, with structured interviews and a literature review forming the sources of the data collection. Data was analysed by thematic methods and evidence was triangulated by comparison of the different sources of data in the discussion.

6.8 Self-reflection

Having worked in the IT sector for over 17 years, I am intrigued by how few women sit around the boardroom tables whenever I attend meetings. Being in the minority, I always felt left out and intimidated by the number of men surrounding me. In some of the environments where I worked, there were very few — or sometimes no — females with whom to share my concerns or soundboard ideas. This absence of females in decision making positions always bothered me, and from there grew the idea to study the imbalanced representation of women in senior management positions in IT. I was of the opinion that women were not given the opportunity to prove themselves in this male-dominated environment and organizations don't want women in their midst. However, the outcome of this study is the complete opposite of what I was expecting. The fact that organizations are open and welcoming to women, and that in fact it is the women who do not necessarily aspire to top jobs, came as a surprise to me. Knowing quite a few women with IT qualifications, finding qualified women to fill senior management positions was not an issue in my view.

Starting off this study with the perception that I could finish it within one year was a huge mistake. Dealing with women in decision making positions made it very difficult to stick to the schedule — appointments were cancelled several times due to pressing issues the women had to attend to. This dragged out the study and made me despondent at times. Undertaking this study made me realize the inroads that have been made over the past years to empower women in South Africa, but also highlights that there is much still to be done to achieve a balanced representation of all genders in senior management positions.

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APPENDICES

APPENDIX A: Interview guide

Research Topic
Gender imbalance: A focus on Senior Management positions in the IT Sector in South Africa.

Research Problem
Women in South Africa are under-represented in senior management positions in the IT sector.

Key words
Women, under represented, IT sector, appointment, senior management positions, career advancement, career path, strategies, development opportunities, mentors, leadership.

Aim of interview guideline
This questionnaire is aimed at establishing the reasons behind female under-representation in senior management positions in the IT sector in SA. For the purpose of this study, senior managers refer to a person that have a significant leadership role within the organisation; have control over the day-to-day operations; have decision-making powers; and usually, but not necessarily, report directly to the board of executives or directors.

Interview guideline
Research Problem: **Women in South Africa are under-represented in senior management positions in the IT sector.**

Research question 1	What are the reasons for the under representation of women in senior management positions in the IT sector?
Sub question 1.1	To what extent are women still under represented in the IT sector in SA?
	1.1.1 How many women are employed in senior management positions in IT at the company you work for?
	1.1.2 Do you think it's important to have more women in senior positions? If yes, why? If no, why not?
	Interviewers Comments
Sub question 1.2	Why are women under-represented in senior management positions in IT?
	1.2.1 What do you think is the main contributing factors for the imbalance representation of women in senior management positions in IT?
	Interviewers Comments
	How does organizational culture impacts women's advancement to senior management positions?
Sub question 1.3	

	1.3.1 What is the current workplace culture of your organization? How will you describe it?
	1.3.2 What do you think can be done to improve gender diversity at senior management levels in your organization?
	1.3.3 What workplace / organizational culture characteristics have hampered or assisted your development or advancement in your career?
	Interviewers Comments
Sub question 1.4	**What strategies have IT organizations in South Africa implemented to advance women to senior management positions?**
	1.4.1. A. Are you aware of any program/s within your organization that assist women advancing in their career and what are these programs?
	1.4.1 B. If they have programs, are these programs measured?
	Interviewers Comments
Research question 2	**How does the recruitment process for senior management positions affect the imbalances of women in IT?**
Sub question 2.1	**What are the reasons why females are not successfully appointed in senior management positions in IT?**
	2.1.1 Have you ever applied for a more senior management position in IT? If you have applied, were you successful the 1st time around or not?
	2.1.2 Will you consider applying when a senior position gets advertised in the future?
	Interviewers Comments
Sub question 2.2	**How does organizations recruit for senior management positions in IT?**
	2.2.1 What do you think must be the qualities an organization should look for when recruiting for senior management positions in IT?
	2.2.2 What do you think is the possibility of you having an equal opportunity to be appointed if the interviewing panel is predominantly male?
	2.2.3 How do you think organizations should advertise and handle senior management positions in IT?
	Interviewers Comments

Sub question 2.3	What impact do female networking patterns have on the recruitment for senior positions?
	2.3.1 What do you think of networking outside office hours? I.e. playing golf with male co-workers?
	2.3.2 What is your opinion with regards to referrals through networks during the recruitment process?
	2.3.3 Which gender do you tend to network with more at work? What are the reason/s for your response?
	2.3.4 In your view does the fact that an environment is predominantly male result in women having to work harder to prove their worth in order to get promoted? Please elaborate.
	Interviewers Comments
Sub question 2.4	What is the impact of female career choices on the imbalanced representation of women in IT?
	2.4.1 Why did you decide on the career direction you took?
	2.4.2 Who or what had the biggest impact on your career choice?
	2.4.3 Did you ever have a mentor or coach throughout your career? Have you benefited by having one?
	Interviewers Comments

Faculty of Informatics and Design

Research Ethics Review Checklist

All post-graduate students and researchers are required to complete this form before commencing with research. Post-graduate students are requested to please submit this form together with HDC 1.2 (proposal submission) to the Faculty Research Committee (FRC).

(Where applicable mark relevant boxes with an X)

Project Title:
Gender imbalance: A focus on Senior Management positions in the IT Sector in South Africa.

Applicant / Researcher:	Title, name & surname: Mrs. Y.S. Louw-Harmse	Under-graduate		Post-graduate	X	Staff	
Office Telephone: **0219454949**		Cell: **0837033531**		eMail: **yoann.louwharmse93@gmail.com**			

Supervisor (if applicable):	Title, name & surname: **Dr A. de la Harpe**
Office Telephone: 021 460 3627	Cell 082 448 1058	eMail: andre@i2ifica.com

Research Checklist:		Yes	No
1:	Does the study involve participants who are unable to give informed consent? Examples include children, people with learning disabilities, or your own students.		X
2:	Will the study require the co-operation of a gatekeeper for access to the research participants. Examples include students at school, members of self-help groups, residents of nursing homes — anyone who is under the legal care of another.		X
3:	Will it be necessary for participants to take part in the study without their knowledge and consent at the time? — e.g. covert observation of people in non-public places?		X
4:	Will the study with the research subject involve discussion of sensitive topics? Examples would include questions on sexual activity or drug use.		X
5:	Will the study involve invasive, intrusive, or potentially harmful procedures of any kind (e.g. drugs, placebos or other substances to be administered to the study participants)?		X
6:	Will the study involve testing on sentient subjects?		X
7:	Will financial inducements (other than reasonable expenses and compensation for time) be offered to participants?		X
8:	Will your research involve materials or processes that could damage the environment?		X

If you have answered '*No*' to all questions, submit the completed and signed form to the FRC together with the research proposal.

If you have answered 'Yes'…

If you have answered '*Yes*' to <u>one or more</u> questions, kindly attach a report describing how you plan to deal with the ethical issues raised by your research. This does not mean that you cannot do the research, only that your proposal will need to be approved by the Research Ethics Committee. You will need to submit your plans for addressing the ethical issues raised by your proposal to the FID Research Ethics Committee.

<u>Declaration</u>
As Researcher / Applicant I acknowledge that:

- It is my responsibility to follow the CPUT Code of Practice on Ethical Standards (which is currently being drafted) and any relevant academic or professional guidelines in the conduct of my study; and

- that this includes providing appropriate information sheets and consent forms and ensuring confidentiality in the storage and use of data.

- Furthermore that in the event that there are any significant changes in the design, or conduct over the course of the research, that I will notify my supervisor (where relevant) and inform the FID Research Ethics Committee if new ethics approval is needed.

By my signature below I declare that I am not aware of any potential conflicts of interest, other than those declared on THIS form, which may influence the ethical conduct of this study.

Signatures:

Researcher:	Supervisor:
Date:	Date:

FID Research Ethics Committee comments:

Approved	Referred back	Ethics Committee Member	Date:

APPENDIX C: Letter of consent

Cape Peninsula
University of Technology

Department of Information Technology
Letter of informed consent

The South African Constitution makes is clear that no unfair discrimination based on any feature of being a woman will be tolerated. Despite this and other directives, women are still poorly represented in top managerial and executive posts country-wide. Under-representation of women at senior levels is clearly evident in the IT sector for no apparent reason. My request is if you would be willing to take part in the study, and /or can provide me with possible suitable candidates within the IT sector for my study. The interviews will be done, one on one via telephone / face-to-face or Skype at suitable time for both parties.

Purpose of this study (Interviews)

The study is focused on the reasons behind the imbalanced representation of women at senior management positions in the IT sector. The aim of this research is to gain a deeper insight into the previously identified barriers and other unidentified issues that impact women career advancement to senior management positions in IT.

All participation in this study is out of free will and respondents can withdraw at any time. All interview sessions will be audio recorded, which is subject to the consent of respondents. All information will be strictly confidential and would be invaluable for my study. No names of persons or companies will be published. There will be no risk of personal/emotional/physical/mental/ harm of any kind inflicted by this study, and discussions on sensitive topics will be avoided.

By signing this letter, the participant acknowledges his or her informed consent as related to the study.

Participant	Organization	Signature/Date
Researcher	Institution	Signature/Date
Supervisor	Institution	Signature/Date

APPENDIX D: Interview Schedule

Participant	Scheduled time	Date of Interview
P1.	19:00 – 20:00	10 June 2013
P2.	11:00 – 12:00 (rescheduled due to unavailability of participant)	15 June 2013
P2	12:00 – 13:00	26 June 2013
P3.	10:00 – 11:00	30 June 2013
P4.	14:00 – 15:00 (rescheduled due to unavailability of participant)	9 July 2013
P4.	11:30 – 12:30	11 July 2013
P5.	13:00 – 14:00	16 July 2013
P6.	13:30 - 14:30	22 July 2013
P7.	11:30 – 12:30	24 July 2013
P8.	15:00 – 16:00	29 July 2013
P9.	10:30 - 11:30	31 July 2013
P10.	10:00 – 11:00 (rescheduled due to unavailability of participant)	5 August 2013
P10	10:00 – 11:00	7 August 2013
P11.	14:00 – 15:00	6 August 2013
P12.	10:30 - 11:30 (rescheduled due to unavailability of participant)	13 August 2013
P12.	10:00 – 11:00	15 August 2013
P13.	14:00 – 15:00	19 August 2013
P14.	10:30 – 11:30	21 August 2013
P15.	13:00 – 14:00	22 August 2013
P16	14:00 – 15:00	26 August 2013
P17	15:00 – 16:00	26 August 2013

APPENDIX E: Copy of a transcript

XXX XXX
Job role and qualification

I am working for XXX, SA Company which position is to focus in SA, although we are prepared to follow our customers across the board. We want to invest in SA. The company is 15 years old. It is still young but we are doing well. There are 3 focus areas. I head up the managed services division, we will come in with our technical team, the 3rd leg of the company and do the solution design and the technical team will withdraw and we will taking over the run of it, from there the design, build, run model. I am with them for 8 year. I am probably the exception in terms of my qualifications. I have a Marketing diploma. The reason why I got involved in IT is because I done a lot of change management before XXX. The guy I worked with at the time told me; I know you have done a lot of communication and change manage and although IT is not your field we believe with your experience you can help us. That was about 20 years ago. I was with XXX. I have developed a model that I called the customer centricity model. I have a very strong focus on the customer. I enter <mark>the IT world because of my business alignment skills, looked at where are the gaps between what IT provide to the customers and in terms of the business needs and what IT provides</mark>. I have this specific approached that I called the gap analysis. Based on that, I present back to the customers. This is what I did in the 1st 8 -10 years in IT. Change management, Gap analysis, customer centricity workshops, investing in people. When I joining XXX, the managed services position became available and I was offered that. That was based on my people skills and not my IT skills. So I had to acquire the IT jargon quickly. This is how I ended up in IT. I have not studied IT, I never qualified for any degree in IT, but with my experience and successes I achieved with my business alignment.

*How many women are employed in the environment and how many is in senior management positions***?**

In the WC, I head up the outsourced divisions. XXX and <mark>I am the only female in senior positions. The rest are all men. Within our Service delivery portfolio, we have just appointed a lady on one of the accounts.</mark>

Do you think it is important to have more women in senior positions?
<mark>**Yes, but I believe there is a long history of men ruling the world and we can have a chip on our shoulder for the rest of our lives or we can try to join in terms of our skills. Yes I believe there is a very strong need for women in IT,**</mark> **because of <mark>the fact that we are flexible, Emotional Intelligent, we can juggle, and we can interact better with**</mark>

people than men. This might be a harsh statement to make, but sometimes the emotional side of women is needed in IT because it is such a clinical, hard world. I must say on the customer side, there are quite a number of women in IT. On the IT outsource provider space, there is still growth needed. In fact tomorrow I am taking one of the very senior managers at Samsung to have a look at our site. I have seen an increase in terms of women in IT, but within XXX there is room for growth for women into senior positions.

What do you think is the main contributing factors for the imbalance representation of women in senior management positions in IT?

It was always a man's world, it was dominated by men. I don't think it was intentionally. The 2 people started this company was men. I think it is the men's lack of confidence in ladies. Women usually don't want to become technicians. On our service desk we have ladies, but you don't often find ladies that want to be technical and therefore climbed the ladder to be able to become a senior manager. We can't just only blame men. It is a career option, because if it was marketing, you will find more females in Marketing because it is more attractive to ladies. I believe that has also changing now, look at PM, change management, i.e., but still you won't find a lot of females saying they wants to become a solutions architect. You will not find many ladies that can apply for those positions because they don't have that experience.

What is the current workplace culture of your organization? How will you describe it?

I have been with them for 9 years and the exciting part is that it's a growing company, it is still young and you can't compare it to XXX, but are very dynamic and are recognized, they are not opposed to women entry the IT world. They encourage it a lot. Our CFO is a lady and she recognizes ladies. They are definitely recognizing ladies in IT.

What does your organization do to make it welcoming or attractive for females at senior manager positions?

I think, yes, but you can't blame XXX, We are XXX, One thing we can do is to have an Internship program and maybe to encourage women to apply for positions and making sure we appoint ladies and up skill them and give them the opportunities to grow into a leadership role. We do that, but we can do more of it. That is where it starts. If you deal with recruitment agencies or place adverts make sure you inform them that you prefer women. Grow that person into a leadership position that can someday take over. We can certainly do more of it.

What workplace / organizational culture characteristics have hampered your development or advancement in your career?

No, I must honestly say, they took a risk to put me in this position. I don't have any IT qualifications and they saw the opportunity to place me there. They don't regret it because we grew over the years. They didn't think twice. The previous person that was in the position resigned and within a month they made me the offer. I did not have to fight for the role or sell myself. At that point they saw the people interaction skills I had and based on that. I must say my MD assist me a lot in the process. I had no idea where to start. But they took the gab and empowered me. Just was a unique situation, none of the competitors might have done. 1st I would not have qualified because I don't have the IT qualifications. 2ndly even if you said you have all the experience, you still have to sell yourself, but because at that stage 9 years ago we was much smaller and a much closer interaction with the directors so they knew me. There was no need to sell me. This is what helped me, there was no hampering. You don't have to sell yourself if you earn your credibility. Customers will speak of you; you don't have to do it yourself. I am empowered to make decisions, although there is the processes and procedures, but generally they do empower and enable you a lot , regardless whether you are a women or not.

Since I taken on this position, I do feel competition with men continuously. Did I get position; yes I did. Was I treated fairly; yes I was. However, since having the position I found there is much more competition with men. Within XXX and outside the company, I do know that are certain areas like salaries, incentives, bonuses; men do earn more and that I feel it is unfair. I have not done my homework within XXX, I am happy with my package, I think it is fair, but I am scared to find out what the next person earn. I might resign and walk away should I know. Right now I will say I am happy with my package. Generally men earn more. They are given the benefit of the doubt. We have to work so much harder than men.

Have you ever applied for a senior management position in IT? If you have applied, were you successful 1st time round or not?

No, I have not and I will not. I know my strength and weaknesses. I can probably become a director if I really want too. Do I want to become a director; only for the title because I like it. I had a discussion with the Director about it. It's about recognition. At my age 50, you thinking it are your last step, but because I am not from an IT background, maybe that is why I am working harder. All the females I spoke to at my customers, they are tired, and you are housewife, mother, you work yourself silly. That to me is the sad thing about women in IT. I know once a director, you have to earn your salary. I am very comfortable in my position. I know my strengths; I am not a financial strong person. I can sell, but I go on my gut feel and always make profits. I will not want to get involved in the financial part of the business. I don't want to take over his position. Even if they offer it to me, I will not take it, I will be setup for failure. I

think I am good at what I am doing now. I can do **better** in the outside world, I was asked to join other companies, but the grass is not always greener on the other side.

In your opinion, do you think you stand a fair chance of getting a senior management job or a higher one that you currently occupy should you apply for it? Please elaborate.

Within my skills set, within our career path there is actually not a more senior position I can go, except for Director. If there is a more senior position, I know they will not hold back to give me that opportunity. They are not unfair.

Are you aware of any program/s within your organization that assist women advancing in their career and what are these programs?

I don't know. I think because we are each focused on of our areas, each division grows their people. Within our division we will grow that person to become a more senior person if she has potential to become a senior. But like myself, if they must invest in me to take on the MD's position. I don't think so, but they can find a person easier by hiring from outside. It is not the position I believe I should have. I should be able to run it and be successful, but only with a lot of help.

Have you ever been mentored throughout your career?

No, I not within XXX. I do have someone who coaches me, but not a real mentorship program. I am more a mentor to other people. I use one of my clients as a sound board from time to time. I will call him my mentor. I just made him my mentor. If I stuck from time to time, I will speak to him when I have challenges. He understands the gab I have in terms of technical skills. He has been my mentor, but it is not a formal program and the company did not provide it. It is a company that you must be tough to survive.

Do you think you would have benefitted from having a formal mentor?

Yes a lot. It is something that is lacking 100%. The MD of XXX would have been perfect, but he doesn't have the time. If I could have a mentor, I would have benefitted. It would have been great to have that person available.

Would you mentor someone and will you prefer male or female?

I think both; it is good to have a man as a mentor. That is why I use a man as my mentor. It is how men think. They are more objective than female. But from understanding the female perspective, women will be better. There is definitely room for a mentorship program. I am a mentor; that is what anyone in my team will tell you. I believe in investing in people. I make a lot of time for each person. If my role can only be to act as mentor; it is all that I want to do.

What do you think must be the leadership qualities an organization should look for when recruiting for senior management positions in IT?

Definitely the understanding of technical environment. To understand where technology is going. An IT business minded person. Without strong leadership skills, you are not going be successful. I think it is where men are falling short; they don't

have people skills. It is not their mistake. They are putting into that role because of their technical ability. Companies usually underestimate the people skills. Together with the people and technical skills, that is what is important.

What do you think is the possibility of you having an equal opportunity to be appointed if the interviewing panel is predominantly male?

NO, I think in many instances men still get the benefit of the doubt, because of their technical ability. A woman must be very strong and convince that panel that technically you are very good and are not only a people's person. They assume that women have good interpersonal skills, but they always question her technical ability.

What do you think of social networking i.e. playing golf with male co-workers?

When it comes to relationship building, I believe in a cup of coffee, but the days of long lunches are gone. I love to take a customer out. I don't have a problem with that, but I think there is a fine line. You got to stay professional, even though you can relax a bit and be more informal, build a better relationship. You get more quality in doing this type of socializing. But you should not over do it.

What is your opinion wrt referrals through networks?

I never believed in it and I don't like it. But with the new social networks, it can work. I must tell you since I been on Linkedin, the job offers came from linked-in. Yes it works,

Which gender do you tend to network with more at work? What is the reason/s for your response?

I work with men. I don't have a preference. I always worked with men, the rest of the management team is mostly men, but I don't have issues networking with females.

Why did you decide on the career direction you took?

Because it was not my field, when I started it was very interesting for me. It was all new. Doing marketing and move into IT. I found it very exciting and then I saw the opportunities. What prompted me were the opportunities I could get from being in IT.

Who or what had the biggest impact on your career choice?

It was the person who took the risk and gave me the position.

What leadership development opportunity were you exposing to during your career? I.e. On-the -job training or formal training? Which had the biggest impact on your career?

On the job training, there is nothing like it. Dealing with real practical examples gives you so much more that class room training.

In your view does the fact that an environment is predominantly male result in women having to work harder to prove their worth in order to get promoted? Please elaborate.

I think we are wrong; <mark>we don't have to work harder</mark>. Sometimes we get over <mark>tired and emotional and we worry too much</mark>. I don't think should work harder, but we do.
APPENDIX F: Coding Scheme

Interviewee	Response	Code	Keyword	Theme
1	I know what my focus is at the current stage	AMB	Ambition	Career Advancement of women
10	Anything to move forward with my career	AMB	Ambition	Career Advancement of women
11	women have ambition	AMB	Ambition	Career Advancement of women
12	Women are interested in senior positions	AMB	Ambition	Career Advancement of women
12	Self-driven	AMB	Ambition	Career Advancement of women
12	Will not apply yet,	AMB	Ambition	Career Advancement of women
12	have personal power, ambition	AMB	Ambition	Career Advancement of women
12	need to understand my role better	AMB	Ambition	Career Advancement of women
12	help you to drive those goals	AMB	Ambition	Career Advancement of women
9	women don't do it for themselves	AMB	Ambition	Career Advancement of women
9	wanted to get on top	AMB	Ambition	Career Advancement of women
9	currently I am happy with where I am	AMB	Ambition	Career Advancement of women
9	will not apply, not at this stage	AMB	Ambition	Career Advancement of women
9	will do so later	AMB	Ambition	vancement of men
7	what I don't know I'll always be willing to	AMB	Ambition	Career Advancement

Interviewee	Response	Code	Keyword	Theme
	learn			of women
Interviewee	**Response**	**Code**	**Keyword**	**Theme**
7	Difficult to find management material in women	AMB	Ambition	Career Advancement of women
2	regardless whether you are a women or not.	DEV	Development programs	Career Advancement of women
1	programs are not only for women.	DEV	Development programs	Career Advancement of women
1	for both men and women	DEV	Development programs	Career Advancement of women
1	not specifically for women	DEV	Development programs	Career Advancement of women
1	Gender should not be an issue	DEV	Development programs	Career Advancement of women
1	It must be balanced	DEV	Development programs	Career Advancement of women
11	Not be about gender	DEV	Development programs	Career Advancement of women
11	No, not unique to women	DEV	Development programs	Career Advancement of women
6	Men have a dominant managing style	DOM	Dominance of Male	Career Advancement of women
7	man's world	DOM	Dominance of Men	Career Advancement of women
2	dominated by men	DOM	Dominance of Men	Career Advancement of women
2	the rest of the management team is mostly men	DOM	Dominance of Men	Career Advancement of women
2	men ruling the world	DOM	Dominance of Men	Career Advancement of women
2	Generally men earn more.	DOM	Dominance of Men	Career Advancement of women
5	I am used to living in male world	DOM	Dominance of Men	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
6	All the senior managers are male	DOM	Dominance of Men	Career Advancement of women
1	men's world	DOM	Dominance of Men	Career Advancement of women
1	can feel it is a male dominated environment	DOM	Dominance of Men	Career Advancement of women
1	immediately felt out	DOM	Dominance of Men	Career Advancement of women
1	Women feel out of place	DOM	Dominance of Men	Career Advancement of women
1	More men	DOM	Dominance of Men	Career Advancement of women
1	feel the odd one out	DOM	Dominance of Men	Career Advancement of women
1	fighting against a lot of men	DOM	Dominance of Men	Career Advancement of women
10	More opportunities for men	DOM	Dominance of Men	Career Advancement of women
10	More men gets chosen	DOM	Dominance of Men	Career Advancement of women
10	Men get chosen over the women	DOM	Dominance of Men	Career Advancement of women
10	women are interested, but they are not getting chosen	DOM	Dominance of Men	Career Advancement of women
14	when businesses start up, there are a legacy of men being the start-up people and once they have created the business, they look after their buddy's	DOM	Dominance of Men	Career Advancement of women
14	Earlier in my career I did pick up that because IT is an male dominantly environment women did not get opportunities	DOM	Dominance of Men	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
14	I had to force the men to listen to me.	DOM	Dominance of Men	Career Advancement of women
12	male dominance in IT comes from earlier times	DOM	Dominance of Men	Career Advancement of women
12	men were in business from early days	DOM	Dominance of Men	Career Advancement of women
12	White Afrikaner old school men have a lot of influence and have still that mind set	DOM	Dominance of Men	Career Advancement of women
9	Male dominated area	DOM	Dominance of Men	Career Advancement of women
7	IT is a serious male predominantly environment	DOM	Dominance of Men	Career Advancement of women
7	It is a men thing	DOM	Dominance of Men	Career Advancement of women
7	Only men did IT and now we have women doing it	DOM	Dominance of Men	Career Advancement of women
7	it was always a men's world	DOM	Dominance of Men	Career Advancement of women
1	can feel it is a male dominated environment	DOM	Dominance of Men	Career Advancement of women
1	analyse issues differently than men	FEC	Female characteristics	Career Advancement of women
1	more detailed	FEC	Female characteristics	Career Advancement of women
1	more hands on	FEC	Female characteristics	Career Advancement of women
1	look at the root course	FEC	Female characteristics	Career Advancement of women
1	address problems hands on	FEC	Female characteristics	Career Advancement of women
1	women don't manage from a distance	FEC	Female characteristics	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
1	Brings different aspect into boardroom	FEC	Female characteristics	Career Advancement of women
1	different perspective	FEC	Female characteristics	Career Advancement of women
1	diversity in the board room.	FEC	Female characteristics	Career Advancement of women
12	being vocal	FEC	Female Characteristics	Career Advancement of women
2	Sometimes we get over tired and emotional and we worry too much	FEC	Female Characteristics	Career Advancement of women
2	All the females I spoke to at my customers, they are tired	FEC	Female Characteristics	Career Advancement of women
2	we can juggle	FEC	Female Characteristics	Career Advancement of women
2	interact better	FEC	Female Characteristics	Career Advancement of women
2	emotional side of women is needed	FEC	Female Characteristics	Career Advancement of women
4	Sometimes women adds more value	FEC	Female Characteristics	Career Advancement of women
4	Women are more judgemental	FEC	Female Characteristics	Career Advancement of women
4	Women will look at other things like the clothes	FEC	Female Characteristics	Career Advancement of women
6	when you get home you have a 2nd job	FEC	Female Characteristics	Career Advancement of women
6	Women are more organized	FEC	Female Characteristics	Career Advancement of women
6	female be more judgemental	FEC	Female Characteristics	Career Advancement of women
6	very difficult for a woman to make new friends	FEC	Female Characteristics	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
6	whine yourself down try to proof a point	FEC	Female Characteristics	Career Advancement of women
1	women must be one ahead	FEC	Female Characteristics	Career Advancement of women
1	show you can do the job	FEC	Female Characteristics	Career Advancement of women
1	speak a little louder	FEC	Female Characteristics	Career Advancement of women
1	proof themselves the can do it	FEC	Female Characteristics	Career Advancement of women
1	do things twice or thrice,	FEC	Female Characteristics	Career Advancement of women
1	keep the balance	FEC	Female Characteristics	Career Advancement of women
1	women must have confidence to speak boldly	FEC	Female Characteristics	Career Advancement of women
1	proof themselves the can do it	FEC	Female Characteristics	Career Advancement of women
1	women having mood swings	FEC	Female Characteristics	Career Advancement of women
1	men must see what I can bring to the company	FEC	Female Characteristics	Career Advancement of women
1	Women will accept more responsibilities	FEC	Female Characteristics	Career Advancement of women
1	Children being sick,	FEC	Female Characteristics	Career Advancement of women
1	not feel they must become man like to be heard.	FEC	Female Characteristics	Career Advancement of women
1	Stand a better chance if there are women on the panel	FEC	Female Characteristics	Career Advancement of women
1	women must fight to have your voice heard	FEC	Female Characteristics	Career Advancement of women
1	women must make their voice physically louder	FEC	Female Characteristics	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
1	won't view things as negative as men do	FEC	Female Characteristics	Career Advancement of women
1	step up	FEC	Female Characteristics	Career Advancement of women
1	make your voice known	FEC	Female Characteristics	Career Advancement of women
1	say it louder	FEC	Female Characteristics	Career Advancement of women
10	Women's approach is differently	FEC	Female Characteristics	Career Advancement of women
10	we treat employees differently	FEC	Female Characteristics	Career Advancement of women
14	Women can do more work, multiple tasking and can keep track of everything	FEC	Female Characteristics	Career Advancement of women
14	I think women can do more than one thing at a time because they are mothers. Mothers have multiple rolls to play	FEC	Female Characteristics	Career Advancement of women
12	women are more fair in what they do	FEC	Female Characteristics	Career Advancement of women
12	women bring something different to the work place	FEC	Female Characteristics	Career Advancement of women
12	can connect to the female on the panel	FEC	Female Characteristics	Career Advancement of women
12	balance out what the male brings to the work place	FEC	Female Characteristics	Career Advancement of women
12	female will understand female batter	FEC	Female Characteristics	Career Advancement of women
12	women are concentrating on getting the work done and less socialising	FEC	Female Characteristics	Career Advancement of women
12	things that women are good at that men are not	FEC	Female Characteristics	Career Advancement of women
12	female will have a different perspective	FEC	Female Characteristics	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
9	you never get to proof the point	FEC	Female Characteristics	Career Advancement of women
9	Think differently	FEC	Female Characteristics	Career Advancement of women
9	Comes to genetics, women are very coordinated	FEC	Female Characteristics	Career Advancement of women
7	women want to proof themselves	FEC	Female Characteristics	Career Advancement of women
7	women are structured differently	FEC	Female Characteristics	Career Advancement of women
7	Women are process driven	FEC	Female Characteristics	Career Advancement of women
7	Female are very flexible	FEC	Female Characteristics	Career Advancement of women
7	Women become emotional when she is not seen or heard	FEC	Female Characteristics	Career Advancement of women
7	Women are judgemental	FEC	Female Characteristics	Career Advancement of women
7	always end up being at home	FEC	Female Characteristics	Career Advancement of women
7	She is always willing to do whatever	FEC	Female Characteristics	Career Advancement of women
7	is the mistake that females make	FEC	Female Characteristics	Career Advancement of women
7	Women tend to judge	FEC	Female Characteristics	Career Advancement of women
7	We trying make our foot print	FEC	Female Characteristics	Career Advancement of women
7	Women are very emotional	FEC	Female Characteristics	Career Advancement of women
7	women really take a beating in society	FEC	Female Characteristics	Career Advancement of women
8	you a typical women, or stereotype of behaviour	FEC	Female Characteristics	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
6	if I asked twice, it must not be seen as nagging	FEC	Female Characteristics	Career Advancement of women
1	complications of women getting pregnant	FEC	Female Characteristics	Career Advancement of women
1	people accept what men have to say easier	FEC	Female Characteristics	Career Advancement of women
1	don't want to be stereotyped	FEC	Female Characteristics	Career Advancement of women
1	mum must stay at home	FEC	Female Characteristics	Career Advancement of women
1	women are classed	FEC	Female Characteristics	Career Advancement of women
1	women have to stand-up for themselves	FEC	Female Characteristics	Career Advancement of women
1	if you are not being heard, speak up	FEC	Female Characteristics	Career Advancement of women
1	proof to be successful	FEC	Female Characteristics	Career Advancement of women
3	Lack of experience closed the doors for going into core business	LSC	Lack of Self-confidence	Career Advancement of women
1	not sure about the reasons	LSC	Lack of self-confidence	Career Advancement of women
1	No I not will not stand a fair chance	LSC	Lack of self-confidence	Career Advancement of women
1	I was not good enough	LSC	Lack of self-confidence	Career Advancement of women
7	you feel a bit less	LSC	Lack of self-confidence	Career Advancement of women
7	I would not have been successful	LSC	Lack of self-confidence	Career Advancement of women
7	come in with a disadvantage	LSC	Lack of self-confidence	Career Advancement of women
7	No, I always grow into one	LSC	Lack of self-confidence	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
8	difficult for men to get the overall picture of things	MCUL	Male culture	Career Advancement of women
8	Cannot really understand about women emotions.	MCUL	Male culture	Career Advancement of women
8	males don't completely respect female opinion	MCUL	Male culture	Career Advancement of women
6	my boss was very egocentric	MCUL	Male culture	Career Advancement of women
6	Males always need time out	MCUL	Male culture	Career Advancement of women
6	Men don't do the paperwork,	MCUL	Male culture	Career Advancement of women
6	When men can't handle things they want to go out	MCUL	Male culture	Career Advancement of women
6	Men work 5% and go and play golf.	MCUL	Male culture	Career Advancement of women
6	men just do what they need to do at work	MCUL	Male culture	Career Advancement of women
2	I think it is where men are falling short; they don't have people skills.	MCUL	Male culture	Career Advancement of women
4	Sometimes men adds more value	MCUL	Male culture	Career Advancement of women
4	men are more focused	MCUL	Male culture	Career Advancement of women
1	man can walk in positions	MCUL	Male culture	Career Advancement of women
1	Male will choose male	MCUL	Male culture	Career Advancement of women
1	men don't have diverse opinions,	MCUL	Male culture	Career Advancement of women
1	men are familiar with top management	MCUL	Male culture	Career Advancement of women
1	men keep women at a distance	MCUL	Male culture	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
1	men stand by each other	MCUL	Male culture	Career Advancement of women
1	men are protective of women	MCUL	Male culture	Career Advancement of women
1	men will select strong men	MCUL	Male culture	Career Advancement of women
1	women must explain more before men listen	MCUL	Male culture	Career Advancement of women
1	see women as weaker	MCUL	Male culture	Career Advancement of women
14	Men work better with other men	MCUL	Male culture	Career Advancement of women
14	Men can only do one thing, no multitasking	MCUL	Male culture	Career Advancement of women
14	I think there was ego involved	MCUL	Male culture	Career Advancement of women
14	I did not get credit for my work from the male managers. Good work was not recognized by them	MCUL	Male culture	Career Advancement of women
14	Male managers did not recognized my skills and that kept me back.	MCUL	Male culture	Career Advancement of women
12	men tend to be more socialize and do work through social not doing the admin part	MCUL	Male culture	Career Advancement of women
12	Male might not understand what female is trying to say, will therefore select a male.	MCUL	Male culture	Career Advancement of women
9	Men think one track only	MCUL	Male culture	Career Advancement of women
7	Men want to know what their job is and only do that.	MCUL	Male culture	Career Advancement of women
7	Men just want the job done	MCUL	Male culture	Career Advancement of women
7	Men are unforgiving; they don't care if you are women	MCUL	Male culture	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
7	men just follow one route	MCUL	Male culture	Career Advancement of women
7	Men don't want to manage people.	MCUL	Male culture	Career Advancement of women
7	That is the man culture	MCUL	Male culture	Career Advancement of women
7	men do 1 thing and you getting paid the same or more than you doing the 5 things	MCUL	Male culture	Career Advancement of women
2	men lack confidence in ladies	MCUL	Male culture	Career Advancement of women
8	People think women don't have the intellect to do the IT	MCUL	Male culture	Career Advancement of women
5	Don't label me because I am a women	MCUL	Male culture	Career Advancement of women
5	I personally have a problem, why should I be treated differently because I am a women	MCUL	Male culture	Career Advancement of women
5	Women think they must get preferential treatment	MCUL	Male culture	Career Advancement of women
6	All role models are men	Men	Mentoring	Career Advancement of women
6	No, I never had a mentor	MEN	Mentoring	Career Advancement of women
6	Manger must be a role model	MEN	Mentoring	Career Advancement of women
6	But we should have mentors	MEN	Mentoring	Career Advancement of women
2	I do have someone who coaches me,	MEN	Mentoring	Career Advancement of women
2	I am more a mentor to other people.	MEN	Mentoring	Career Advancement of women
2	I use one of my clients as a sound board from time to time	MEN	Mentoring	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
2	I will speak to him when I have challenges	MEN	Mentoring	Career Advancement of women
2	My MD assist me a lot in the process.	MEN	Mentoring	Career Advancement of women
2	has been my mentor, but it is not a formal program	MEN	Mentoring	Career Advancement of women
2	If I could have a mentor, I would have benefitted.	MEN	Mentoring	Career Advancement of women
2	It would have been great to have that person available.	MEN	Mentoring	Career Advancement of women
2	It is good to have a man as a mentor.	MEN	Mentoring	Career Advancement of women
2	It is how men think that makes them good mentors	MEN	Mentoring	Career Advancement of women
2	They are more objective than female that is why they are good mentors	MEN	Mentoring	Career Advancement of women
2	But from understanding the female perspective, it will be better to mentor a women.	MEN	Mentoring	Career Advancement of women
2	There is definitely room for a mentorship program	MEN	Mentoring	Career Advancement of women
2	I believe in investing in people	MEN	Mentoring	Career Advancement of women
2	I make a lot of time for each person.	MEN	Mentoring	Career Advancement of women
15	Yes, there was a Business Analyst and he was so helpful	MEN	Mentoring	Career Advancement of women
4	There was about 3 mentors in my life	MEN	Mentoring	Career Advancement of women
4	Definitely benefit out of it.	MEN	Mentoring	Career Advancement of women
4	Recommends it to somebody	MEN	Mentoring	Career Advancement of women
4	Mentoring a guy at the moment.	MEN	Mentoring	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
3	Yes I had a mentor	MEN	Mentoring	Career Advancement of women
3	I would mentor someone	MEN	Mentoring	Career Advancement of women
3	The gender will not matter	MEN	Mentoring	Career Advancement of women
1	Yes, I had a mentor	MEN	Mentoring	Career Advancement of women
1	mentoring we did	MEN	Mentoring	Career Advancement of women
1	mentoring we did	MEN	Mentoring	Career Advancement of women
1	like to mentor a women	MEN	Mentoring	Career Advancement of women
10	NO, did not have a mentor	MEN	Mentoring	Career Advancement of women
10	Will depend if the person wants a mentor, so the gender will not matter to me.	MEN	Mentoring	Career Advancement of women
14	No, not a formal mentor	MEN	Mentoring	Career Advancement of women
14	If I could have a mentor when I started here, I would have benefited from it.	MEN	Mentoring	Career Advancement of women
14	I was a mentor to a few people	MEN	Mentoring	Career Advancement of women
14	We both learned from each other through the process.	MEN	Mentoring	Career Advancement of women
14	No preference to a specific gender	MEN	Mentoring	Career Advancement of women
14	I never had a managers that could be a mentor to me	MEN	Mentoring	Career Advancement of women
11	Mentoring a lady at the moment	MEN	Mentoring	Career Advancement of women
11	I Still have mentor	MEN	Mentoring	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
12	Mentoring Has a role to play	MEN	Mentoring	Career Advancement of women
12	Yes, will mentor or coach someone else	MEN	Mentoring	Career Advancement of women
12	really believe in helping another to grow	MEN	Mentoring	Career Advancement of women
12	not afraid that someone will be better than me	MEN	Mentoring	Career Advancement of women
12	will not mind ether male or female	MEN	Mentoring	Career Advancement of women
12	will prefer female, but won't mind doing it for a male	MEN	Mentoring	Career Advancement of women
5	My late supervisor was my mentor	MEN	Mentoring	Career Advancement of women
5	I learned so much from all of them	MEN	Mentoring	Career Advancement of women
5	I am mentoring currently, hope they see me as one	MEN	Mentoring	Career Advancement of women
5	Gender does not matter	MEN	Mentoring	Career Advancement of women
7	Best training for women managers in IT is mentors	MEN	Mentoring	Career Advancement of women
7	Yes, definitely	MEN	Mentoring	Career Advancement of women
7	we need one on one	MEN	Mentoring	Career Advancement of women
7	mentors are important to help women	MEN	Mentoring	Career Advancement of women
7	I never had a mentor	MEN	Mentoring	Career Advancement of women
7	I think all women in IT should have a mentor	MEN	Mentoring	Career Advancement of women
6	women learn from their mistakes	SAW	Self-Awareness	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
2	I am not an extrovert	SAW	Self-Awareness	Career Advancement of women
1	level of growth was exceptional	SAW	Self-Awareness	Career Advancement of women
1	you view and see things	SAW	Self-Awareness	Career Advancement of women
10	in my nature to do my best	SAW	Self-Awareness	Career Advancement of women
10	my personality shows that I am a natural leader	SAW	Self-Awareness	Career Advancement of women
10	I like to learn new things,	SAW	Self-Awareness	Career Advancement of women
14	Accommodating, but assertive	SAW	Self-Awareness	Career Advancement of women
14	Firm, but friendly	SAW	Self-Awareness	Career Advancement of women
11	Always involved in new things	SAW	Self-Awareness	Career Advancement of women
12	life coach help to understand my self-better	SAW	Self-Awareness	Career Advancement of women
12	helpful to understand my self	SAW	Self-Awareness	Career Advancement of women
12	emotionally mature	SAW	Self-Awareness	Career Advancement of women
12	focus on what your good points are and build a brand around yourself	SAW	Self-Awareness	Career Advancement of women
12	see things objectively	SAW	Self-Awareness	Career Advancement of women
12	understand what your goals are	SAW	Self-Awareness	Career Advancement of women
12	I became more of myself and more aware	SAW	Self-Awareness	Career Advancement of women
12	I am creative	SAW	Self-Awareness	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
5	I became strong through my difficult situations	SAW	Self-Awareness	Career Advancement of women
5	I was not ready for it	SAW	Self-Awareness	Career Advancement of women
7	my inquisitiveness	SAW	Self-Awareness	Career Advancement of women
6	Not be afraid of men.	SCF	Self confidence	Career Advancement of women
6	Yes, I will get a position because of my character and not about what I can do.	SCF	Self confidence	Career Advancement of women
2	I only want o become a director for the title because I like it	SCF	Self confidence	Career Advancement of women
2	I did not have to fight for the role or sell myself	SCF	Self confidence	Career Advancement of women
2	you have to sell yourself,	SCF	Self confidence	Career Advancement of women
2	Customers will speak of you; you don't have to do it yourself.	SCF	Self confidence	Career Advancement of women
2	I am very comfortable in my position.	SCF	Self confidence	Career Advancement of women
2	I think I am good at what I am doing now	SCF	Self confidence	Career Advancement of women
2	I know my strengths;	SCF	Self confidence	Career Advancement of women
4	I have what it takes to get the position	SCF	Self confidence	Career Advancement of women
4	I will not be uncomfortable.	SCF	Self confidence	Career Advancement of women
1	no right or wrong	SCF	Self confidence	Career Advancement of women
1	yes I applied	SCF	Self confidence	Career Advancement of women
1	Yes I will stand a fair chance	SCF	Self confidence	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
1	I realized how valuable I am	SCF	Self confidence	Career Advancement of women
1	I can do the job	SCF	Self confidence	Career Advancement of women
1	I have confidence	SCF	Self confidence	Career Advancement of women
1	I have the skills	SCF	Self confidence	Career Advancement of women
14	But yes I have the right skills and experience to be successful	SCF	Self confidence	Career Advancement of women
14	My own personal drive helped me to advance	SCF	Self confidence	Career Advancement of women
14	Must have a good self-image, believe in yourself, but don't think you are better than others	SCF	Self confidence	Career Advancement of women
14	Approachable, balanced person	SCF	Self confidence	Career Advancement of women
12	I see IT as a challenge.	SCF	Self confidence	Career Advancement of women
12	women must be able to stand-up for themselves and see that males don't mistreat them	SCF	Self confidence	Career Advancement of women
12	Don't think he was any better than me.	SCF	Self confidence	Career Advancement of women
12	women must have a high self esteem	SCF	Self confidence	Career Advancement of women
12	Yes, I will be successful	SCF	Self confidence	Career Advancement of women
5	Yes, I am the best candidate in the faculty	SCF	Self confidence	Career Advancement of women
5	If I don't get it, it will be for other reasons, but not because I cannot do it.	SCF	Self confidence	Career Advancement of women
7	create my own opinion	SCF	Self confidence	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
7	when others doubt you, then doubt yourself	SCF	Self confidence	Career Advancement of women
7	You need to be able to speak up	SCF	Self confidence	Career Advancement of women
7	Yes, because I can sell myself good	SCF	Self confidence	Career Advancement of women
7	When you have an opinion you have to voice it.	SCF	Self confidence	Career Advancement of women
7	It only takes a big or confident smile	SCF	Self confidence	Career Advancement of women
7	I motivated why I must get an increase.	SCF	Self confidence	Career Advancement of women
7	You cannot sit in a corner	SCF	Self confidence	Career Advancement of women
7	not afraid to challenge men	SCF	Self confidence	Career Advancement of women
1	This is who I am	SAW	Self-awareness	Career Advancement of women
1	I know what my strengths are	SAW	Self-awareness	Career Advancement of women
7	My previous job promised on the job training	TRAI	Training	Career Advancement of women
2	On the job training, there is nothing like it	TRAI	Training	Career Advancement of women
2	Dealing with real practical examples gives you so much more that class room training.	TRAI	Training	Career Advancement of women
4	A mix , but more on the job training	TRAI	Training	Career Advancement of women
4	Even in my current studies the on the job training is helping me.	TRAI	Training	Career Advancement of women
3	Bad management style can be instilled through on the job training	TRAI	Training	Career Advancement of women
1	On the job training had the biggest impact on my career	TRAI	Training	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
10	on the job experienced helped me more	TRAI	Training	Career Advancement of women
14	Both.	TRAI	Training	Career Advancement of women
11	Definitely the on the job	TRAI	Training	Career Advancement of women
12	on the job training is better	TRAI	Training	Career Advancement of women
12	on the job training is critical	TRAI	Training	Career Advancement of women
5	Later I trained my and done research, that help me a lot	TRAI	Training	Career Advancement of women
5	Definitely on the job training	TRAI	Training	Career Advancement of women
9	support structure provided me with on the job training opportunities	TRAI	Training	Career Advancement of women
7	not class room training	TRAI	Training	Career Advancement of women
1	have lots of training	TRAI	Training	Career Advancement of women
2	IT was very interesting for me	CRC	Career Choice	Career choices women make
2	It is a career option	CRC	Career Choice	Career choices women make
2	IT is not attractive to ladies	CRC	Career Choice	Career choices women make
4	Not my decision to go into IT	CRC	Career Choice	Career choices women make
4	My previous position	CRC	Career Choice	Career choices women make
4	The manager who suggested that I went into BA	CRC	Career Choice	Career choices women make
4	I am not sure	CRC	Career Choice	Career choices women make

Interviewee	Response	Code	Keyword	Theme
14	Women must make the choices	CRC	Career Choice	Career choices women make
14	There was a few people that influenced my career choice	CRC	Career Choice	Career choices women make
14	I became a teacher and enjoyed it	CRC	Career Choice	Career choices women make
14	The colleague that applied on my behalf for the job	CRC	Career Choice	Career choices women make
14	I landed in IT by chance	CRC	Career Choice	Career choices women make
14	The manager I had at the time had a big influence on my career	CRC	Career Choice	Career choices women make
14	Most of time it is a career choice and women will sacrifice better opportunities because they cannot take on more	CRC	Career Choice	Career choices women make
14	A colloquy applied for the IT job on my behalf.	CRC	Career Choice	Career choices women make
14	I was always fascinated and curious about IT	CRC	Career Choice	Career choices women make
14	I enjoyed writing programs and put logic into it.	CRC	Career Choice	Career choices women make
5	My father that told me what to studied	CRC	Career Choice	Career choices women make
5	IT chose me, I did not choose IT	CRC	Career Choice	Career choices women make
5	I choses to be where I want to be	CRC	Career Choice	Career choices women make
5	If I must do it over, I will definitely choose IT again	CRC	Career Choice	Career choices women make
5	To take a more senior position, I think the price will be too high in my personal live	CRC	Career Choice	Career choices women make
5	I am not interested	CRC	Career Choice	Career choices women make

Interviewee	Response	Code	Keyword	Theme
5	I like to work with students, want to assist other people, so I don't want more responsibility	CRC	Career Choice	Career choices women make
5	I did not want to go where all family went, so I went to a different university	CRC	Career Choice	Career choices women make
12	tricky to find women who are career focus	CRC	Career Choice	Career choices women make
15	I relocated to Cape Town and there was a position available	CRC	Career Choice	Career choices women make
6	I enjoy IT	CRC	Career Choice	Career choices women make
6	Challenge to proof women can go into IT.	CRC	Career Choice	Career choices women make
6	career choice was in IT because it was what I enjoyed	CRC	Career Choice	Career choices women make
1	I know where I want to be	CRC	Career Choice	Career choices women make
1	women said they don't want to be in IT	CRC	Career Choice	Career choices women make
1	IT is not where they want to be.	CRC	Career Choice	Career choices women make
1	women say IT is difficult	CRC	Career Choice	Career choices women make
1	women leave IT totally at some stage	CRC	Career Choice	Career choices women make
1	women prefer to do data capturing	CRC	Career Choice	Career choices women make
10	Just drifted into that direction	CRC	Career Choice	Career choices women make
11	Someone that came to speak at our school that helped with the decision	CRC	Career Choice	Career choices women make
11	High unemployment let me choose IT	CRC	Career Choice	Career choices women make
11	Stay at home when my child was born	CRC	Career Choice	Career choices women make

Interviewee	Response	Code	Keyword	Theme
11	Looked at a career path where there was many opportunities	CRC	Career Choice	Career choices women make
11	Saw good examples that helped me in my career choice	CRC	Career Choice	Career choices women make
11	Was only doing contract work during while my children were small	CRC	Career Choice	Career choices women make
12	Not a conscious decision	CRC	Career Choice	Career choices women make
12	women leaves their careers to have babies and leave that gab	CRC	Career Choice	Career choices women make
9	Being independent clarified where I want to be	CRC	Career Choice	Career choices women make
9	Have role models in IT	CRC	Career Choice	Career choices women make
9	His interest in IT makes me want to be there as well	CRC	Career Choice	Career choices women make
7	Don't know	CRC	Career Choice	Career choices women make
7	never think that I can make it my career	CRC	Career Choice	Career choices women make
7	I just ended up in IT	CRC	Career Choice	Career choices women make
7	most of career choices are made when we are small	CRC	Career Choice	Career choices women make
1	crawl under desks	CRC	Career choice	Career choices women make
1	carry heavy computers	CRC	Career choice	Career choices women make
1	IT environments are more gear towards men	CRC	Career choice	Career choices women make
1	men do it easier	CRC	Career choice	Career choices women make
1	women wants to do an easier type of work	CRC	Career choice	Career choices women make

Interviewee	Response	Code	Keyword	Theme
1	women wants more feminine type of work in IT	CRC	Career choice	Career choices women make
7	IT was not part of our household.	CRC	Career choice	Career choices women make
7	IT was not showed to us	CRC	Career choice	Career choices women make
2	IT is a clinical, hard world	CRC	Career choice	Career choices women make
2	IT landscape is changing now	CRC	Career choice	Career choices women make
3	Came from a data environment	CRC	Career choice	Career choices women make
3	Was reassigned to the IT department	CRC	Career choice	Career choices women make
3	I advanced through the ranks	CRC	Career choice	Career choices women make
1	I started right down at the bottom	CRC	Career choice	Career choices women make
14	The person must have an overview of the environment	CRC	Career choice	Career choices women make
5	Women exit the market	CRC	Career choice	Career choices women make
9	women slowly penetrating IT environment	CRC	Career choice	Career choices women make
9	introducing more women to IT	CRC	Career choice	Career choices women make
8	is a stigma attached to IT	CRC	Career choice	Career choices women make
4	Over time women have to stay home. Homemakers	CRC	Career choice	Career choices women make
10	its male, the nerdy guy with the thick glasses,	CRC	Career choice	Career choices women make
12	social outcasts, only plays TV games	CRC	Career choice	Career choices women make

Interviewee	Response	Code	Keyword	Theme
12	women must do the customer facing type of work	CRC	Career choice	Career choices women make
12	the mind-set that male are better	CRC	Career choice	Career choices women make
2	The manager who took the risk and gave me the position.	OPP	Opportunities	Career choices women make
2	I saw the opportunities	OPP	Opportunities	Career choices women make
2	What prompted me were the opportunities I could get from being in IT.	OPP	Opportunities	Career choices women make
3	the Manager at the time	OPP	Opportunities	Career choices women make
3	a Manager of mine place me in IT	OPP	Opportunities	Career choices women make
6	my subject choices at school	STU	Studies	Career choices women make
2	I don't have any IT qualifications	STU	Studies	Career choices women make
1	knew I'll go in a science field	STU	Studies	Career choices women make
1	study in the 90's	STU	Studies	Career choices women make
1	it was my studies	STU	Studies	Career choices women make
1	I had computer science	STU	Studies	Career choices women make
1	most women don't have the qualification	STU	Studies	Career choices women make
1	did not know a single bar of a computer s	STU	Studies	Career choices women make
1	women start study IT late	STU	Studies	Career choices women make
1	lot of men studying IT	STU	Studies	Career choices women make

Interviewee	Response	Code	Keyword	Theme
1	few women studying IT	STU	Studies	Career choices women make
1	if you had maths	STU	Studies	Career choices women make
1	boys were usually better in maths	STU	Studies	Career choices women make
14	I went studying IT to understand it better	STU	Studies	Career choices women make
13	My promotions came out of me studying	STU	Studies	Career choices women make
14	I enrich my own views by doing my studies	STU	Studies	Career choices women make
14	I studied with a bursary and computer subjects was not allowed	STU	Studies	Career choices women make
14	I studied further because I wanted to empower myself and want to find how I can be a better manager.	STU	Studies	Career choices women make
2	understanding of technical environment	Tech	Technical skills	Career choices women make
2	NO, I think in many instances men still get the benefit of the doubt, because of their technical ability.	Tech	Technical skills	Career choices women make
2	To understand where technology is going.	Tech	Technical skills	Career choices women make
2	Woman must be very strong and convince that panel that technically you are very good and are not only a people's person.	Tech	Technical skills	Career choices women make
7	But they always question her technical ability.	Tech	Technical skills	Career choices women make
1	females don't want to become technicians	Tech	Technical skills	Career choices women make
1	don't want be technical	Tech	Technical skills	Career choices women make

Interviewee	Response	Code	Keyword	Theme
15	Men are being put into that senior role because of their technical ability.	Tech	Technical skills	Career choices women make
10	Together with the people and technical skills	Tech	Technical skills	Career choices women make
3	Age is a factor to keep up with technology	Tech	Technical skills	Career choices women make
3	Don't have to be a technical specialist	Tech	Technical skills	Career choices women make
7	previous interview feedback came back and it said I was not technical enough	Tech	Technical skills	Career choices women make
15	Must be a split between technical skills and management skills.	Tech	Technical skills	Career choices women make
6	I am a bit of a technical person	Tech	Technical skills	Career choices women make
13	They should not lookout for technical skills, more strategic leaders,	Tech	Technical skills	Career choices women make
3	Many technical training is good	Tech	Technical skills	Career choices women make
14	They should look at the technical and the profile of the person, not the gender	Tech	Technical skills	Career choices women make
2	He understands the gab I have in terms of technical skills.	Tech	Technical skills	Career choices women make
7	boys will read and fixing their toys	Tech	Technical skills	Career choices women make
4	Men will lookout for the skills	Tech	Technical skills	Career choices women make
8	males will push for technical skills and tech training	Tech	Technical skills	Career choices women make
8	Men have technical skills, but are lacking the soft skills.	Tech	Technical skills	Career choices women make
12	It is a technical sector, it has been predominantly male	Tech	Technical skills	Career choices women make
1	didn't play with computers or technology	Tech	Technical skills	Career choices women make

Interviewee	Response	Code	Keyword	Theme
7	I did not grew up with technology	Tech	Technical skills	Career choices women make
8	women don't see themselves in technical environment	Tech	Technical skills	Career choices women make
2	Together with the people and technical skills	Tech	Technical skills	Career choices women make
1	Maybe women don't see themselves prospering in technical environment	Tech	Technical skills	Career choices women make
1	balance is important	BIL	Balance in Life	Organizational Factors
1	I know what I want out of life	BIL	Balance in Life	Organizational Factors
1	Life is not about career only	BIL	Balance in Life	Organizational Factors
1	balance in life	BIL	Balance in Life	Organizational Factors
1	want to be a mum and wife and a daughter	BIL	Balance in Life	Organizational Factors
1	want to be a mum and wife and a daughter	BIL	Balance in Life	Organizational Factors
5	I don't need more nonsense in my live	BIL	Balance in Life	Organizational Factors
1	gender is still an issue	OCUL	Organizational Culture	Organizational Factors
1	gender will be an issue	OCUL	Organizational Culture	Organizational Factors
8	for new recruits when they come in we have a mentor	OCUL	Organizational Culture	Organizational Factors
13	have mentoring sessions	OCUL	Organizational Culture	Organizational Factors
13	have mentorship program for new recruits	OCUL	Organizational Culture	Organizational Factors
8	things go bad then they nail you	OCUL	Organizational Culture	Organizational Factors
8	Help them fit into the organizations.	OCUL	Organizational Culture	Organizational Factors
13	if you made a mistake they will guide you	OCUL	Organizational Culture	Organizational Factors
6	very good culture here	OCUL	Organizational Culture	Organizational Factors
6	We don't have that male female thing here.	OCUL	Organizational Culture	Organizational Factors
6	is not based on what you are but what you do	OCUL	Organizational Culture	Organizational Factors
6	the company culture gave me a new outlook on IT	OCUL	Organizational Culture	Organizational Factors

Interviewee	Response	Code	Keyword	Theme
6	How you are on job is the culture they appraise here.	OCUL	Organizational Culture	Organizational Factors
6	at this company it is more about what you can do and how well you can do it	OCUL	Organizational Culture	Organizational Factors
6	it's about your character	OCUL	Organizational Culture	Organizational Factors
6	It is not about who you are in the company.	OCUL	Organizational Culture	Organizational Factors
6	it's about what you can do than being a female	OCUL	Organizational Culture	Organizational Factors
6	Don't praise you when a job is well done	OCUL	Organizational Culture	Organizational Factors
6	company culture wants you to do more	OCUL	Organizational Culture	Organizational Factors
2	not opposed to women entry the IT world	OCUL	Organizational Culture	Organizational Factors
2	encourage it a lot	OCUL	Organizational Culture	Organizational Factors
2	to encourage women to apply for positions	OCUL	Organizational Culture	Organizational Factors
2	CFO recognizes ladies	OCUL	Organizational Culture	Organizational Factors
2	definitely recognizing ladies in IT	OCUL	Organizational Culture	Organizational Factors
2	making sure we appoint ladies	OCUL	Organizational Culture	Organizational Factors
2	definitely recognizing ladies in IT	OCUL	Organizational Culture	Organizational Factors
2	sure we appoint ladies	OCUL	Organizational Culture	Organizational Factors
2	still growth needed	OCUL	Organizational Culture	Organizational Factors
2	I treated fairly; yes	OCUL	Organizational Culture	Organizational Factors
4	Don't think gender is an issue in this company	OCUL	Organizational Culture	Organizational Factors
4	Yes, open culture	OCUL	Organizational Culture	Organizational Factors
4	Enough is being done	OCUL	Organizational Culture	Organizational Factors
4	Open culture has assisted me to grow	OCUL	Organizational Culture	Organizational Factors
4	sometimes the mothers have to do things and the company is very lenient	OCUL	Organizational Culture	Organizational Factors
4	Have a consistent message that goes out, irrespective of gender	OCUL	Organizational Culture	Organizational Factors
4	They recognized that family comes 1st	OCUL	Organizational Culture	Organizational Factors

Interviewee	Response	Code	Keyword	Theme
4	Company is flexible, and acknowledge women have family to looks after.	OCUL	Organizational Culture	Organizational Factors
3	Yes, they are open to diversity	OCUL	Organizational Culture	Organizational Factors
3	Allow many women to enter the workplace	OCUL	Organizational Culture	Organizational Factors
3	HR has been tasks to develop women	OCUL	Organizational Culture	Organizational Factors
3	There is a drive to develop those in the pipeline	OCUL	Organizational Culture	Organizational Factors
1	they must allow more women to enter into IT	OCUL	Organizational Culture	Organizational Factors
1	give women a chance to voice their opinions	OCUL	Organizational Culture	Organizational Factors
1	must support where they see women do not get it	OCUL	Organizational Culture	Organizational Factors
1	more acceptable to men than women	OCUL	Organizational Culture	Organizational Factors
1	company is fair, will select the right person for the job	OCUL	Organizational Culture	Organizational Factors
10	Have not cross anything that prevent women in the area	OCUL	Organizational Culture	Organizational Factors
10	Was perceived that it was open, but it was not really	OCUL	Organizational Culture	Organizational Factors
10	From the outside it appears that they are welcoming to women, but once you are inside you can see it is not the case.	OCUL	Organizational Culture	Organizational Factors
10	When people are chosen for training, don't only choose those that are shouting the loudest.	OCUL	Organizational Culture	Organizational Factors
10	Selection process not done fairly	OCUL	Organizational Culture	Organizational Factors
14	Yes, they are open	OCUL	Organizational Culture	Organizational Factors
14	Allowing opportunities for women	OCUL	Organizational Culture	Organizational Factors
14	I cannot recall instance where an opportunity was denied because you are a women	OCUL	Organizational Culture	Organizational Factors
14	The company will not go out of their way to attract more women.	OCUL	Organizational Culture	Organizational Factors

Interviewee	Response	Code	Keyword	Theme
11	Same person that was always chosen to act as the RM, I was never given the opportunity	OCUL	Organizational Culture	Organizational Factors
11	Never opportunity for me to grow	OCUL	Organizational Culture	Organizational Factors
11	Everybody is treated the same	OCUL	Organizational Culture	Organizational Factors
12	The fact that you are female, don't mean you are treated differently	OCUL	Organizational Culture	Organizational Factors
12	In other organizations it might not be like this.	OCUL	Organizational Culture	Organizational Factors
12	Yes, they are open	OCUL	Organizational Culture	Organizational Factors
12	vacancies they advertise state they are looking for females	OCUL	Organizational Culture	Organizational Factors
5	They make an effort	OCUL	Organizational Culture	Organizational Factors
5	Was only specific people; with individuals at the time, not the org	OCUL	Organizational Culture	Organizational Factors
5	Senior appointments they are trying to address the imbalance	OCUL	Organizational Culture	Organizational Factors
5	Sometimes to a point where it become ridiculous	OCUL	Organizational Culture	Organizational Factors
5	No serious concern that women do not get the opportunities	OCUL	Organizational Culture	Organizational Factors
5	I don't pick up that it is an issue	OCUL	Organizational Culture	Organizational Factors
5	I think it comes down to the direct manager, not the entire org	OCUL	Organizational Culture	Organizational Factors
5	they allow women	OCUL	Organizational Culture	Organizational Factors
9	culture fit	OCUL	Organizational Culture	Organizational Factors
9	At our company they welcome female	OCUL	Organizational Culture	Organizational Factors
9	women stand a fair chance in my environment, Yes	OCUL	Organizational Culture	Organizational Factors
9	Part of their strategy to get more women	OCUL	Organizational Culture	Organizational Factors
7	Allow women to be who they are.	OCUL	Organizational Culture	Organizational Factors

Interviewee	Response	Code	Keyword	Theme
7	They allow me to make decisions	OCUL	Organizational Culture	Organizational Factors
7	they don't shy away from promoting women at all	OCUL	Organizational Culture	Organizational Factors
7	NO. Inside Maxcor we don't concentrate on how to advance women	OCUL	Organizational Culture	Organizational Factors
7	women that do well they get promoted	OCUL	Organizational Culture	Organizational Factors
7	they help to advance you in your job	OCUL	Organizational Culture	Organizational Factors
7	they treat us the same as men	OCUL	Organizational Culture	Organizational Factors
7	They look at the job and what the role need.	OCUL	Organizational Culture	Organizational Factors
7	No differential between female and male.	OCUL	Organizational Culture	Organizational Factors
7	They don't care about women in IT.	OCUL	Organizational Culture	Organizational Factors
7	Will promote you if you deserve it.	OCUL	Organizational Culture	Organizational Factors
7	they must be taught to empower women in IT	OCUL	Organizational Culture	Organizational Factors
	Very open to women	OCUL	Organizational Culture	Organizational Factors
13	No, we don't have anything like that	OCUL	Organizational Culture	Organizational Factors
6	No programs	OCUL	Organizational Culture	Organizational Factors
2	have an Internship program	OCUL	Organizational Culture	Organizational Factors
2	I don't know of programs	OCUL	Organizational Culture	Organizational Factors
2	an Internship program	OCUL	Organizational Culture	Organizational Factors
4	Not for women only.	OCUL	Organizational Culture	Organizational Factors
4	There is training program for management	OCUL	Organizational Culture	Organizational Factors
4	Continues HR related sessions wrt management skills	OCUL	Organizational Culture	Organizational Factors
4	Is for everybody in the company	OCUL	Organizational Culture	Organizational Factors
4	Communicated through HR.	OCUL	Organizational Culture	Organizational Factors
4	Yes program was successful.	OCUL	Organizational Culture	Organizational Factors
3	Not aware of any program to advanced women	OCUL	Organizational Culture	Organizational Factors

Interviewee	Response	Code	Keyword	Theme
3	Have not attend any development programs for women	OCUL	Organizational Culture	Organizational Factors
1	Nothing, no programs that I know of.	OCUL	Organizational Culture	Organizational Factors
10	There was mentor / coach position, but not to get people in senior position	OCUL	Organizational Culture	Organizational Factors
10	Must introduce a merit system	OCUL	Organizational Culture	Organizational Factors
14	There are programs, but is for developing talent, but not for women only	OCUL	Organizational Culture	Organizational Factors
14	Is available but is not communicated openly	OCUL	Organizational Culture	Organizational Factors
14	There are financial assistance if you want to develop yourself	OCUL	Organizational Culture	Organizational Factors
14	Yes I have participated and have benefited out of it.	OCUL	Organizational Culture	Organizational Factors
11	There are programs available for development, but not for women specifically	OCUL	Organizational Culture	Organizational Factors
11	I don't think if the programs are only for women that it can work	OCUL	Organizational Culture	Organizational Factors
12	Attended a leading women program at the previous company	OCUL	Organizational Culture	Organizational Factors
12	No, at this company they don't have something	OCUL	Organizational Culture	Organizational Factors
12	programs are great, do help with certain skills you cannot get at work,	OCUL	Organizational Culture	Organizational Factors
12	They can adopt the program and use it within the company	OCUL	Organizational Culture	Organizational Factors
5	Have organized events for women only	OCUL	Organizational Culture	Organizational Factors
5	There is a program that give opportunity for women to participate	OCUL	Organizational Culture	Organizational Factors
5	It was send through the university, so it was actively promoted.	OCUL	Organizational Culture	Organizational Factors
9	No programs	OCUL	Organizational Culture	Organizational Factors
9	Will participate if there is.	OCUL	Organizational Culture	Organizational Factors

Interviewee	Response	Code	Keyword	Theme
1	organization must understand what the good qualities are that I have	OCUL	Organizational culture	Organizational Factors
11	It is about the work, fair treatment for everybody	OCUL	Organizational Culture	Organizational Factors
1	the strategy is to employ more females	OCUL	Organizational Culture	Organizational Factors
2	I would not have qualified because I don't have the IT qualifications	QUA	Qualification	Organizational Factors
3	I only got my degree late in my career	QUA	Qualification	Organizational Factors
1	sometimes men don't even have the qualification	QUA	Qualification	Organizational Factors
1	few women with degrees in BSC	QUA	Qualification	Organizational Factors
1	MBA helped me to think critically	QUA	Qualification	Organizational Factors
1	Women think they need a degree or do studies before we apply for a job.	QUA	Qualification	Organizational Factors
9	not qualified to be in a senior management role	QUA	Qualification	Organizational Factors
1	was not successful in applying for a senior role	REC	Recruit	Organizational Factors
1	chances are less if it is males on the panel	REC	Recruitment	Organizational Factors
12	Male got the position that I applied for	REC	Recruitment	Organizational Factors
1	it is who we are and about our family time	RES	Responsibility	Organizational Factors
8	a social responsibility	RES	Responsibility	Organizational Factors
2	you are housewife, mother,	RES	Responsibility	Organizational Factors
1	I apply for what I know	RES	Responsibility	Organizational Factors
1	Apply for what I know and then grow into the next.	RES	Responsibility	Organizational Factors
1	have a family	RES	Responsibility	Organizational Factors
1	I am not ready to take on more responsibility	RES	Responsibility	Organizational Factors
1	more responsibilities	RES	Responsibility	Organizational Factors
1	will put strain on my household	RES	Responsibility	Organizational Factors
1	have other responsibilities	RES	Responsibility	Organizational Factors

Interviewee	Response	Code	Keyword	Theme
14	Women cannot take on more responsibility than she already carriers a lot of other responsibility	RES	Responsibility	Organizational Factors
14	Most women cannot afford to employ someone to look after the children so she rather don't take on more responsibility	RES	Responsibility	Organizational Factors
11	I am not ready to take on more responsibility	RES	Responsibility	Organizational Factors
11	Have families	RES	Responsibility	Organizational Factors
12	Have families	RES	Responsibility	Organizational Factors
12	Women have other responsibility.	RES	Responsibility	Organizational Factors
7	take my family in consideration	RES	Responsibility	Organizational Factors
7	sharing the weight	RES	Responsibility	Organizational Factors
6	don't have a second job at home	RES	Responsibility	Organizational Factors
14	Men are only the provider and not fulfilling different roles	RES	Responsibility	Organizational Factors
7	men is seen as the providers	RES	Responsibility	Organizational Factors
8	With a women in a senior position will push for soft skills as well.	BSK	Better Soft Skills	Recruitment for senior positions
6	for women, people skills are vital	BSK	Better Soft Skills	Recruitment for senior positions
2	women have good interpersonal skills	BSK	Better Soft Skills	Recruitment for senior positions
2	I had the people interaction skills	BSK	Better Soft Skills	Recruitment for senior positions
2	Companies usually underestimate the people skills.	BSK	Better Soft Skills	Recruitment for senior positions
2	Emotional Intelligent	BSK	Better Soft Skills	Recruitment for senior positions
1	people and human skills	BSK	Better Soft Skills	Recruitment for senior positions

Interviewee	Response	Code	Keyword	Theme
1	More people oriented,	BSK	Better Soft Skills	Recruitment for senior positions
1	very, very good people skills	BSK	Better Soft Skills	Recruitment for senior positions
14	Emotional Intelligence	BSK	Better Soft Skills	Recruitment for senior positions
14	Assertiveness, Situational leadership	BSK	Better Soft Skills	Recruitment for senior positions
14	good comm. skills	BSK	Better Soft Skills	Recruitment for senior positions
12	good balance of fairness	BSK	Better Soft Skills	Recruitment for senior positions
5	It is about how to develop people	BSK	Better Soft Skills	Recruitment for senior positions
5	Work performance will come with the development of the people	BSK	Better Soft Skills	Recruitment for senior positions
5	Have people skills	BSK	Better Soft Skills	Recruitment for senior positions
7	Have inter-personal skills.	BSK	Better Soft Skills	Recruitment for senior positions
7	women are team driven	BSK	Better Soft Skills	Recruitment for senior positions
7	can listen	BSK	Better Soft Skills	Recruitment for senior positions
7	women be hard and soft	BSK	Better Soft Skills	Recruitment for senior positions
7	Embrace the person's problem and try to fix it.	BSK	Better Soft Skills	Recruitment for senior positions
3	If there was someone earmarked, then advertising will not help	REC	Recruitment	Recruitment for senior positions
1	A specific person was earmarked for a position	REC	Recruitment	Recruitment for senior positions
10	others were earmarked	REC	Recruitment	Recruitment for senior positions

Interviewee	Response	Code	Keyword	Theme
10	could already earmark a man	REC	Recruitment	Recruitment for senior positions
1	That space was reserved for a male.	REC	Recruitment	Recruitment for senior positions
14	If it is a male candidate and is good at selling himself, the panel should be able to recognize it.	REC	Recruitment	Recruitment for senior positions
14	More fair if the panel are all male	REC	Recruitment	Recruitment for senior positions
11	If I made it to the shortlist, I don't think they will be biased towards my gender	REC	Recruitment	Recruitment for senior positions
11	It is about the content of the job, and not about gender	REC	Recruitment	Recruitment for senior positions
12	must not expect favours, selection must be on merit	REC	Recruitment	Recruitment for senior positions
5	Not specifically women, but the right person	REC	Recruitment	Recruitment for senior positions
5	Gender does not matter	REC	Recruitment	Recruitment for senior positions
5	Women should not be treated differently	REC	Recruitment	Recruitment for senior positions
5	Being a women have not resulted in them treating me differently	REC	Recruitment	Recruitment for senior positions
1	women must socialise with everyone	NET	Networking	Women's networking patterns
1	cannot be afraid of networking at the different levels	NET	Networking	Women's networking patterns
6	Single girls can go for it.	NET	Networking	Women's networking patterns
6	for married women to sit in a bar afterhours with male is not acceptable	NET	Networking	Women's networking patterns
6	I don't network	NET	Networking	Women's networking patterns

Interviewee	Response	Code	Keyword	Theme
2	I don't have issues networking with females.	NET	Networking	Women's networking patterns
2	When it comes to relationship building it is good	NET	Networking	Women's networking patterns
2	I love to take a customer out. I don't have a problem with that	NET	Networking	Women's networking patterns
2	But with the new social networks, it can work.	NET	Networking	Women's networking patterns
2	I don't have issues networking with females.	NET	Networking	Women's networking patterns
2	You got to stay professional,	NET	Networking	Women's networking patterns
2	even though you can relax a bit and be more informal	NET	Networking	Women's networking patterns
2	You get more quality in doing this type of socializing.	NET	Networking	Women's networking patterns
2	But you should not overdo it.	NET	Networking	Women's networking patterns
2	I think there is a fine line	NET	Networking	Women's networking patterns
4	You have to social with people you work with.	NET	Networking	Women's networking patterns
4	Does not matter	NET	Networking	Women's networking patterns
4	No preference	NET	Networking	Women's networking patterns
4	Not everyone likes socializing	NET	Networking	Women's networking patterns
4	I prefer more one on one approach	NET	Networking	Women's networking patterns
4	don't have problems with socializing after work	NET	Networking	Women's networking patterns
15	No preference, as long as I can trust the person	NET	Networking	Women's networking patterns

Interviewee	Response	Code	Keyword	Theme
15	Will not discuss anything if I cannot trust the person	NET	Networking	Women's networking patterns
15	Sometimes it is unhealthy to socialise to many with the opposite sex	NET	Networking	Women's networking patterns
3	It is very important to network outside the work environment	NET	Networking	Women's networking patterns
3	It is very important to network outside the work environment	NET	Networking	Women's networking patterns
3	That person you network with can see how you manage yourself outside your work environment	NET	Networking	Women's networking patterns
3	More connected to female	NET	Networking	Women's networking patterns
3	Males are not sociable	NET	Networking	Women's networking patterns
1	perception that men are better that is hard to change	NET	Networking	Women's networking patterns
1	not many women that I can socialize with	NET	Networking	Women's networking patterns
1	socialize with my direct manager, the Director a man	NET	Networking	Women's networking patterns
1	talk about positions on the golf course	NET	Networking	Women's networking patterns
1	men are better at network	NET	Networking	Women's networking patterns
1	women don't always network	NET	Networking	Women's networking patterns
1	spread by word of mouth	NET	Networking	Women's networking patterns
1	can't always network afterhours	NET	Networking	Women's networking patterns
1	women must understand the importance of networking	NET	Networking	Women's networking patterns
1	meet the right people	NET	Networking	Women's networking patterns

Interviewee	Response	Code	Keyword	Theme
1	can't build that relationship	NET	Networking	Women's networking patterns
1	sitting with a male in a coffee shop unacceptable for a woman	NET	Networking	Women's networking patterns
1	Men network outside office because of that they get the jobs.	NET	Networking	Women's networking patterns
1	Networking should not be the only way to know people.	NET	Networking	Women's networking patterns
1	I was not selected because of networking.	NET	Networking	Women's networking patterns
1	normal team buildings should be used for networking	NET	Networking	Women's networking patterns
1	breakfasts during working hours should be used for networking	NET	Networking	Women's networking patterns
10	must know colloquies and customers at a different level therefor I will network	NET	Networking	Women's networking patterns
10	lines get blurred, so must maintain boundaries	NET	Networking	Women's networking patterns
10	Do it, but not outside working hours	NET	Networking	Women's networking patterns
10	no preference f it comes to networking	NET	Networking	Women's networking patterns
10	Not all people are in the same social circles	NET	Networking	Women's networking patterns
10	Depends on what activity is done for social networking	NET	Networking	Women's networking patterns
14	Because it is a more relaxed environment, people speak up during socializing	NET	Networking	Women's networking patterns
14	It depend on the quality of the relationship that I can get out of it.	NET	Networking	Women's networking patterns
14	Trust and relationships are building during networking	NET	Networking	Women's networking patterns
14	Personally, I don't like it	NET	Networking	Women's networking patterns

Interviewee	Response	Code	Keyword	Theme
14	I would prefer to do networking during working hours in the office, not after hours	NET	Networking	Women's networking patterns
14	No preference	NET	Networking	Women's networking patterns
14	I don't mind networking with male and females	NET	Networking	Women's networking patterns
14	According to literature it is important	NET	Networking	Women's networking patterns
14	I don't mind networking with male and females	NET	Networking	Women's networking patterns
14	No preference when it comes to networking	NET	Networking	Women's networking patterns
11	network with all levels	NET	Networking	Women's networking patterns
11	getting different perspective by networking with different levels	NET	Networking	Women's networking patterns
11	I network with anybody I know	NET	Networking	Women's networking patterns
11	Don't have much experience in networking outside the work	NET	Networking	Women's networking patterns
11	No preference	NET	Networking	Women's networking patterns
11	I don't think it is the network that gets you the position	NET	Networking	Women's networking patterns
12	Good way to utilize the opportunity to connect with the right people,	NET	Networking	Women's networking patterns
12	Might not lead to a higher position	NET	Networking	Women's networking patterns
12	It is important	NET	Networking	Women's networking patterns
12	I network with everyone	NET	Networking	Women's networking patterns

Interviewee	Response	Code	Keyword	Theme
12	can socialize with customers and strengthen relationships	NET	Networking	Women's networking patterns
12	no preference	NET	Networking	Women's networking patterns
12	can have a relationship with internal customers	NET	Networking	Women's networking patterns
12	sometimes the networking method is male methodology, difficult to move past that	NET	Networking	Women's networking patterns
5	I don't think socialising this way is necessary	NET	Networking	Women's networking patterns
5	The gender I socialize with doesn't matter	NET	Networking	Women's networking patterns
5	At the time, when I needed support, I realized I could draw from my network of people	NET	Networking	Women's networking patterns
5	I don't like it	NET	Networking	Women's networking patterns
5	Don't like empty networking	NET	Networking	Women's networking patterns
5	Rather prefer one on one	NET	Networking	Women's networking patterns
9	is taking working time away	NET	Networking	Women's networking patterns
9	You must know who to contact for what.	NET	Networking	Women's networking patterns
9	networking is important	NET	Networking	Women's networking patterns
9	From a religion point of view, I am more comfortable networking with women	NET	Networking	Women's networking patterns
9	must be boundaries on how you network	NET	Networking	Women's networking patterns
9	Don't have an issue to socialise with men.	NET	Networking	Women's networking patterns

Interviewee	Response	Code	Keyword	Theme
9	not fair to hire via networking	NET	Networking	Women's networking patterns
7	I don't like to network out of the work place	NET	Networking	Women's networking patterns
7	should be part of a particular circle	NET	Networking	Women's networking patterns
7	have very little time left for networking	NET	Networking	Women's networking patterns
7	no time left to play golf or going for sundowners	NET	Networking	Women's networking patterns
1	selection of a candidate should not be based on what his buddy said on the golf course	REC	Networking	Women's networking patterns
2	I work with men. I don't have a preference	NET	Networking	Women's networking patterns
7	Both genders	NET	Networking	Women's networking patterns
6	it's not what you know but whom you know	REF	Referrals	Women's networking patterns
6	This is how I got my current job	REF	Referrals	Women's networking patterns
6	know someone in the inner circle it is much easier to get the job	REF	Referrals	Women's networking patterns
6	Just have to get your foot in the door for an interview.	REF	Referrals	Women's networking patterns
2	I never believed in it and I don't like it.	REF	Referrals	Women's networking patterns
4	What the ref says about the person	REF	Referrals	Women's networking patterns
4	I will use referrals	REF	Referrals	Women's networking patterns
4	Look at what the persons managers is saying about the person	REF	Referrals	Women's networking patterns

Interviewee	Response	Code	Keyword	Theme
4	They will be viewed with the rest of all the CV's	REF	Referrals	Women's networking patterns
4	I was referred	REF	Referrals	Women's networking patterns
4	It the tests shows that that person is suitable, I will investigate further	REF	Referrals	Women's networking patterns
4	No preferential treatment	REF	Referrals	Women's networking patterns
3	I don't think it is wrong	REF	Referrals	Women's networking patterns
3	The process should still be followed	REF	Referrals	Women's networking patterns
1	a lot of appointments was referrals	REF	Referrals	Women's networking patterns
1	Referrals definitely works	REF	Referrals	Women's networking patterns
1	you can trust your referrer	REF	Referrals	Women's networking patterns
1	Can't just use referrals	REF	Referrals	Women's networking patterns
10	One can look at it,	REF	Referrals	Women's networking patterns
15	The process should still be followed	REF	Referrals	Women's networking patterns
15	I am open to look at CV's, but I will not give preference to that person	REF	Referrals	Women's networking patterns
11	Referrals are all well, no commitment, matter of publishing your CV	REF	Referrals	Women's networking patterns
11	Should be up to the company's policy to view all CV's submitted	REF	Referrals	Women's networking patterns
11	Not sure whether HR are taking more notice from a referral	REF	Referrals	Women's networking patterns
12	There is no harm in that	REF	Referrals	Women's networking patterns

Interviewee	Response	Code	Keyword	Theme
5	I don't have a problem with referrals	REF	Referrals	Women's networking patterns
5	An interview is not long enough to learn to know a person	REF	Referrals	Women's networking patterns
9	Referrals through networks is Unfair	REF	Referrals	Women's networking patterns
9	not fair to hire via networking	REF	Referrals	Women's networking patterns
9	helps to know people, but should not be used to influence recruitment process	REF	Referrals	Women's networking patterns
7	My current appointment was through referral.	REF	Referrals	Women's networking patterns
7	Most of the people working here are via referrals.	REF	Referrals	Women's networking patterns

Interviewee	Response	Code	Keyword	Theme
1	not feel they must become man like to be heard.	FEC	Female Characteristics	Career Advancement of women
1	Stand a better chance if there are women on the panel	FEC	Female Characteristics	Career Advancement of women
1	women must fight to have your voice heard	FEC	Female Characteristics	Career Advancement of women
1	women must make their voice physically louder	FEC	Female Characteristics	Career Advancement of women
1	won't view things as negative as men do	FEC	Female Characteristics	Career Advancement of women
1	step up	FEC	Female Characteristics	Career Advancement of women
1	make your voice known	FEC	Female Characteristics	Career Advancement of women
1	say it louder	FEC	Female Characteristics	Career Advancement of women
10	Women's approach is differently	FEC	Female Characteristics	Career Advancement of women
10	we treat employees differently	FEC	Female Characteristics	Career Advancement of women
14	Women can do more work, multiple tasking and can keep track of everything	FEC	Female Characteristics	Career Advancement of women
14	I think women can do more than one thing at a time because they are mothers. Mothers have multiple rolls to play	FEC	Female Characteristics	Career Advancement of women
12	women are more fair in what they do	FEC	Female Characteristics	Career Advancement of women
12	women bring something different to the work place	FEC	Female Characteristics	Career Advancement of women
12	can connect to the female on the panel	FEC	Female Characteristics	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
2	All the females I spoke to at my customers, they are tired	FEC	Female Characteristics	Career Advancement of women
2	we can juggle	FEC	Female Characteristics	Career Advancement of women
2	interact better	FEC	Female Characteristics	Career Advancement of women
2	emotional side of women is needed	FEC	Female Characteristics	Career Advancement of women
4	Sometimes women adds more value	FEC	Female Characteristics	Career Advancement of women
4	Women are more judgemental	FEC	Female Characteristics	Career Advancement of women
4	Women will look at other things like the clothes	FEC	Female Characteristics	Career Advancement of women
6	when you get home you have a 2nd job	FEC	Female Characteristics	Career Advancement of women
6	Women are more organized	FEC	Female Characteristics	Career Advancement of women
6	female be more judgemental	FEC	Female Characteristics	Career Advancement of women
6	very difficult for a woman to make new friends	FEC	Female Characteristics	Career Advancement of women
6	whine yourself down try to proof a point	FEC	Female Characteristics	Career Advancement of women
1	women must be one ahead	FEC	Female Characteristics	Career Advancement of women
1	show you can do the job	FEC	Female Characteristics	Career Advancement of women
1	speak a little louder	FEC	Female Characteristics	Career Advancement of women

			Female	Career Advancement
1	proof themselves the can do it	FEC	Characteristics	of women
1	do things twice or thrice,	FEC	Female Characteristics	Career Advancement of women
1	keep the balance	FEC	Female Characteristics	Career Advancement of women
1	women must have confidence to speak boldly	FEC	Female Characteristics	Career Advancement of women
1	proof themselves the can do it	FEC	Female Characteristics	Career Advancement of women
1	women having mood swings	FEC	Female Characteristics	Career Advancement of women
1	men must see what I can bring to the company	FEC	Female Characteristics	Career Advancement of women
1	Women will accept more responsibilities	FEC	Female Characteristics	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
1	not feel they must become man like to be heard.	FEC	Female Characteristics	Career Advancement of women
1	Stand a better chance if there are women on the panel	FEC	Female Characteristics	Career Advancement of women
1	women must fight to have your voice heard	FEC	Female Characteristics	Career Advancement of women
1	women must make their voice physically louder	FEC	Female Characteristics	Career Advancement of women
1	won't view things as negative as men do	FEC	Female Characteristics	Career Advancement of women
1	step up	FEC	Female Characteristics	Career Advancement of women
1	make your voice known	FEC	Female Characteristics	Career Advancement of women
1	say it louder	FEC	Female Characteristics	Career Advancement of women
10	Women's approach is differently	FEC	Female Characteristics	Career Advancement of women
10	we treat employees differently	FEC	Female Characteristics	Career Advancement of women
14	Women can do more work, multiple tasking and can keep track of everything	FEC	Female Characteristics	Career Advancement of women
14	I think women can do more than one thing at a time because they are mothers. Mothers have multiple rolls to play	FEC	Female Characteristics	Career Advancement of women
12	women are more fair in what they do	FEC	Female Characteristics	Career Advancement of women
12	women bring something different to the work place	FEC	Female Characteristics	Career Advancement of women
12	can connect to the female on the panel	FEC	Female Characteristics	Career Advancement of women
12	balance out what the male brings to the work place	FEC	Female Characteristics	Career Advancement of women
12	female will understand female batter	FEC	Female Characteristics	Career Advancement of women
12	women are concentrating on getting the work done and less socialising	FEC	Female Characteristics	Career Advancement of women
12	things that women are good at that men are not	FEC	Female Characteristics	Career Advancement of women
12	female will have a different perspective	FEC	Female Characteristics	Career Advancement of women
9	you never get to proof the point	FEC	Female Characteristics	Career Advancement of women

Interviewee	Response	Code	Keyword	Theme
9	Comes to genetics, women are very coordinated	FEC	Female Characteristics	Career Advancement of women
7	women want to proof themselves	FEC	Female Characteristics	Career Advancement of women
7	women are structured differently	FEC	Female Characteristics	Career Advancement of women
7	Women are process driven	FEC	Female Characteristics	Career Advancement of women
7	Female are very flexible	FEC	Female Characteristics	Career Advancement of women
7	Women become emotional when she is not seen or heard	FEC	Female Characteristics	Career Advancement of women
7	Women are judgemental	FEC	Female Characteristics	Career Advancement of women
7	always end up being at home	FEC	Female Characteristics	Career Advancement of women
7	She is always willing to do whatever	FEC	Female Characteristics	Career Advancement of women
7	is the mistake that females make	FEC	Female Characteristics	Career Advancement of women
7	Women tend to judge	FEC	Female Characteristics	Career Advancement of women
7	We trying make our foot print	FEC	Female Characteristics	Career Advancement of women
7	Women are very emotional	FEC	Female Characteristics	Career Advancement of women
7	women really take a beating in society	FEC	Female Characteristics	Career Advancement of women
8	you a typical women, or stereotype of behaviour	FEC	Female Characteristics	Career Advancement of women
6	if I asked twice, it must not be seen as nagging	FEC	Female Characteristics	Career Advancement of women
1	complications of women getting pregnant	FEC	Female Characteristics	Career Advancement of women
1	people accept what men have to say easier	FEC	Female Characteristics	Career Advancement of women
1	don't want to be stereotyped	FEC	Female Characteristics	Career Advancement of women
1	mum must stay at home	FEC	Female Characteristics	Career Advancement of women
1	women are classed	FEC	Female Characteristics	Career Advancement of women
1	women have to stand-up for themselves	FEC	Female Characteristics	Career Advancement of women
1	if you are not being heard, speak up	FEC	Female Characteristics	Career Advancement of women
1	proof to be successful	FEC	Female Characteristics	Career Advancement of women

APPENDIX G: Analysis of Transcripts.

Analysis Final.xls