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Understanding Inclusion:
An Exploratory Study of Women ICT Employees' Experiences

A thesis presented in partial fulfilment of the requirements for the degree of

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Abstract

Information and Communication Technology (ICT) is a profession where women are under-represented. As a minority in a gendered work context, women are at risk of feeling excluded in work groups. In order to attract and retain more women into the ICT profession, scholars emphasise the importance of creating inclusive work environments. Inclusion is an approach that is widely adopted by organisations to provide a better experience for employees. Therefore, the first aim of this study is to explore women ICT employees' experiences and perceptions of inclusion in a work group setting. According to Optimal Distinctiveness Theory (ODT), one feels included when the core elements of inclusion, belongingness and uniqueness needs, are mutually fulfilled. Thus, the second aim of this study is to explore how women ICT employees view the relationship between inclusion, belongingness, and uniqueness.

To study this phenomenon in an exploratory manner, 36 semi-structured interviews were conducted with women ICT employees and data was analysed thematically. Results show how women ICT employees understand inclusion in their work group contexts. Specifically, results show how women ICT employees perceive inclusion, what factors influence their experiences and perceptions of inclusion, and how they view the fulfilment of belongingness and uniqueness needs in a work group. This study contributes to the literature on diversity and inclusion by providing support for the efficacy of inclusion at an individual level and by identifying the factors that influence women ICT employees' inclusion. Additionally, Human Resource Management (HRM) practitioners are provided with recommendations on fostering inclusion among women ICT employees through improved policies and practices aligned with organisational goals.

Keywords: Women in ICT, inclusion, belongingness, uniqueness, ODT, gender

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Researcher's Reflection

I began my tertiary education in 2007 with an introductory programme related to Human Resource Management (HRM). This course provided me with an insight into HRM and I developed an immense interest in the field. Thereafter, I continued my study path in the same field where I completed my Bachelor of Arts in Business and HRM awarded by Coventry University, UK. The next level was Masters and in order to widen my scope, I chose a programme that provided a general view of the business world. As part of the Master of Business Administration (MBA) programme, I had to complete a thesis. Unlike the thesis I completed for the Bachelor level, this took my research knowledge to another level and I became more enthusiastic to do more research work. Although my MBA research topic was not related to gender and ICT and/or inclusion, while reading various articles for the MBA research in 2014, I came across gender and ICT-related studies, e.g. Simard et al. (2008), Timms et al. (2008), and Trauth (2002) and the review paper by Shore et al. (2011).

As a woman, I was instantly drawn towards the research area of gender and ICT. I was reminded of how I was not encouraged to take up ICT-related higher studies due to my gender. Some of the people whom I consulted for advice had mentioned that ICT was not ideal for women. Such thoughts and beliefs were present in the Sri Lankan culture as well. One of the main reasons to develop an interest in the area of inclusion is due to the fact that I come from a HRM background, and diversity and inclusion is mostly handled by HRM personnel in workplaces. They are generally the ones responsible for developing and designing policies and practices related to inclusion. At the same time, I was motivated to explore if ODT was applicable to every individual or in every situation. I reflected on my own experiences and those around me only to realise that I had developed a deep interest in this topic of inclusion. Since

it was not plausible to change the topic of my Master's thesis, I decided to adopt it for my PhD as I had already planned to move out of Sri Lanka for further studies. I could not have found a better context for this study other than New Zealand which is diverse in nature. In order to gain the best understanding of this topic, I decided to explore ODT in the New Zealand context.

After discussing work group inclusion with scholars, practitioners, friends, and family, I realised that everyone's experiences and perceptions were different. This encouraged me to further explore this topic and since the literature states that women in the ICT profession are a minority and thus there is a possibility for them to feel excluded (Annabi & Lebovitz, 2018; Mor Barak, 2000), I decided to explore women ICT employees' experiences of work group inclusion. As a woman, I could easily relate to women's experiences and understand their emotions. Therefore, I set on this journey which was a typical roller coaster ride.

During my PhD, I had the opportunity to participate in conferences. My first ever experience at an international conference was the Australian and New Zealand Academy of Management (ANZAM) conference in 2017, where I had the privilege to meet scholars from around the world. I was able to discuss my study with them and receive feedback after my presentation. The feedback helped me develop my study further. Thereafter, my paper was accepted by many other conferences and paper development workshops.

Another advantage of doing my PhD in New Zealand was that I was able to meet friends from different parts of the world. Some of my friends are from other schools, such as the School of Finance and Economics, yet we worked together throughout. My language skills were an added advantage as I was able to connect with most of them instantly. With Sri Lankan, French, and Indian/Pakistani colleagues, I

communicated in my/their native languages. We listened to each other's difficulties, provided a shoulder to lean on and learned from each other. I showed my conference presentations to my friends before the presentations and got their feedback to improve them. Having reliable friends was extremely helpful during the PhD.

Every step of the way was challenging for me both as an international student living in New Zealand and as a woman who gave birth to a baby during my PhD journey. Data collection was difficult since finding participants was a challenge. Yet, talking to the participants was a good experience. Talking to them, seeing their facial expressions when answering the questions (during face-to-face interviews and video calls), and listening to their experiences improved my communication and listening skills. The next obstacle was transcribing interviews during data collection. There were days when I would conduct two interviews and transcribe one of them on the same day. I transcribed interviews, checked with the recording, and then analysed data. Thematic analysis was done using NVivo 12 and all the findings were reported in the findings chapters without omitting any information.

One of the challenges I faced was working on my PhD during the Covid-19 pandemic. The last phase of the PhD had a lot of writing and this was when the pandemic hit the world. There were lockdowns in New Zealand during which I had to work from home, and meetings with supervisors were held via Skype. I did not find working from home very productive and my level of stress increased. In terms of writing, I understood that the findings should be written in three different chapters. The first chapter discusses the gender angle of the study and the other two chapters are directly linked to the research questions of the study. Realising the significance of the gender aspects through the findings of my study, my supervisors and I decided to

add another chapter. The third chapter of the thesis, Women in ICT, provides an understanding of the challenges that women face in the ICT profession.

Becoming a mother was another factor that made a big impact on my PhD. While I admit that my baby girl's birth was extremely joyful, the amount of effort I had to put in towards my PhD increased thereafter. From travelling for data collection during pregnancy to managing my PhD work while looking after my little daughter, there were many challenges involved in this journey. I am ever so grateful to my parents who took turns to look after my daughter while I focused on my studies. Unfortunately, due to Covid travel restrictions, my parents could no longer extend their support. Hence, with my husband's full-time job, my PhD work, and our little daughter, life has been extremely challenging since 2020. If my husband could not take leave from work, there were instances when I brought my little daughter to university and my friends looked after her while I attended work.

In the latter part of 2020, we, as a family had to go through a tough time hearing about a possible health problem with my husband. A couple of months later, things settled down after my husband had a surgery and the doctor confirmed that my husband was out of danger. For a while, it seemed like we were under a dark cloud. At the last phase of my PhD journey, more family support in New Zealand would have been ideal.

No matter how hard the journey was, I was on an unstoppable journey towards completing my PhD and providing a better understanding of women ICT employees' work group inclusion. As a result of my PhD journey, I became stronger and more resilient than I was four and a half years ago. My presentation and communication skills improved as a result of this experience. I am highly satisfied with the overall experience and once again I admit that I would not have been able to achieve this

without the love and support of my family (my amazing parents, my husband, and my little angel), my supervisory team (Trish, Janet, and Rebecca), my friends and independent reviewers.

Conferences

Parts of this thesis have been presented or accepted for conferences.

- Research paper accepted for the **Australian and New Zealand Academy of Management (ANZAM)** conference 2019, Cairns, Australia.
- Research paper accepted for **SIM Research Development Workshop 2019** at the **Academy of Management Annual Meeting (AOM)**, Boston, USA.
- Research Paper selected for **Australasian Business Ethics Networks (ABEN)** conference 2018, Auckland, New Zealand.
- Research Paper selected for **Gender, Work and Organisation (GWE)** conference 2018, Sydney, Australia.
- Research Paper selected for the **Australian and New Zealand Academy of Management (ANZAM)** conference 2017, Melbourne, Australia.
- Research Paper selected for the **6th Aotearoa New Zealand Organisational Psychology and Organisational Behaviour** conference 2017, Auckland, New Zealand.

Chapter One: Introduction

1.0 Overview

This chapter sets the scene for the research by examining the significance of the main concepts, such as gender, ICT, and inclusion. The research aims, research questions, and the structure of the study are covered in this chapter.

1.1 Background

Women's low participation in some industries and male dominance in more senior positions in the labour market are widely discussed topics. Male dominance is highlighted in many fields including Science, Technology, Engineering, and Mathematics (STEM) (Ruel, 2018). Technology is one of these fields and is often described as challenging for women. Despite having many women pioneers in the past, such as Lade Ada Lovelace and Mary Allen Wilkes (Thompson, 2019), the technology field currently has low participation of women (Annabi & Lebovitz, 2018; Kenny & Donnelly, 2020).

Global statistics show that only about 20% of the Information and Communication Technology (ICT)¹ workforce are women (International Labour Organisation, 2020). Potentially, such dominance of men in the profession may negatively impact the experiences of women ICT employees (Kenny & Donnelly, 2020), resulting in higher levels of turnover of women than men in the first few years of employment (Annabi & Lebovitz, 2018; Ashcraft et al., 2016). Research on women in the ICT field provides some understanding of various aspects of their experiences, including barriers, gender inequalities, and under-representation in the technology profession (Alegria, 2019; Bosch et al., 2021; Crump et al., 2007; Hardey, 2019; Holth

¹ In this study, the terms 'Information Technology' (IT) and 'Information and Communication Technology' (ICT) have been used interchangeably.

et al., 2017; Kenny & Donnelly, 2020; Kirton & Robertson, 2018; Kuschel et al., 2020; McGee, 2018; Serenko & Turel, 2021; Trauth, 2002, 2013; Wing-Fai, 2019; Wynn, 2020). However, although there has been an interest in women's experiences as employees in ICT, there are few studies reflecting on how inclusion is experienced by women in ICT from their individual perspectives.

In this thesis, I take the view that gender is socially constructed. In relation to the work environment, Gatrell and Swan (2008) argue that "gender is actively produced in and through the workplace, and does not simply exist as something that is static prior to or outside the workplace" (Gatrell & Swan, 2008, p. 10). Gender refers to a process through which similarities and differences between individuals are highlighted. For instance, organisational career advancement is experienced by men and women differently due to many factors, including assumptions made about women's commitment to their careers which tend to be questioned more for women than men (Bosch et al., 2021) and opinions about appropriate roles and capabilities for men and women (McGee, 2018). "The ways gender is defined may mean that women make decisions on their own careers within the context in which they perceive themselves relative to men and whether they see themselves as facing constraints over how they act" (Kenny & Donnelly, 2020, p. 331). Gatrell and Swan interpret gender as outcomes of social practices that are continuously produced and reproduced in many ways, such as through interactions and organisational policies. These social practices are known as gendering practices, and consequently, men's and women's experiences of workplaces differ.

An awareness of the obstacles that women face in the corporate world has prompted organisations to form practices and policies that support women in workplaces. Diversity practices and policies have been developed by many

organisations in the technology field (Annabi & Lebovitz, 2018). However, as challenges for women are ongoing (Sandberg, 2015; Serenko & Turel, 2021), more research on women ICT employees' individual experiences is required so that policies can be implemented to attract and retain women in ICT (Armstrong et al., 2018; Kenny & Donnelly, 2020).

1.2 Research Aims

This research is located at the intersection of two research fields: that of gender and ICT, and of diversity and inclusion (as discussed in HRM). Existing literature on women in technology provides an in-depth understanding of the obstacles that are faced by marginalised groups in the ICT field (Trauth, 2017). Women's under-representation in ICT has gained the attention of scholars in various disciplines, such as HRM, gender and technology, careers and organisation studies (Kenny & Donnelly, 2020). Most studies discuss the under-representation of women, low participation in the technology profession (Ashcraft & Cohoon, 2017; Kenny & Donnelly, 2020), and the usage and adaptation of technology among women (Trauth, 2013). Yet, more exploration of gender and ICT is required since existing research on gender and ICT does not capture women's experiences thoroughly (Kenny & Donnelly, 2020; Timms et al., 2008; Trauth, 2013). This literature gap necessitates an exploration of women's experiences and perceptions in the ICT profession.

Schools and universities have struggled to respond to the demand for ICT employment (Mennega & de Villiers, 2021; Serenko & Turel, 2021; Timms et al., 2008), thus, it is important to encourage more individuals to enter this profession and researchers explore ways to attract and retain more women in technology (Ahuja, 2002; Annabi & Lebovitz, 2018; Armstrong et al., 2018). Women as the minority may feel less included in ICT (Annabi & Lebovitz, 2018; Jansen et al., 2017; Mor Barak,

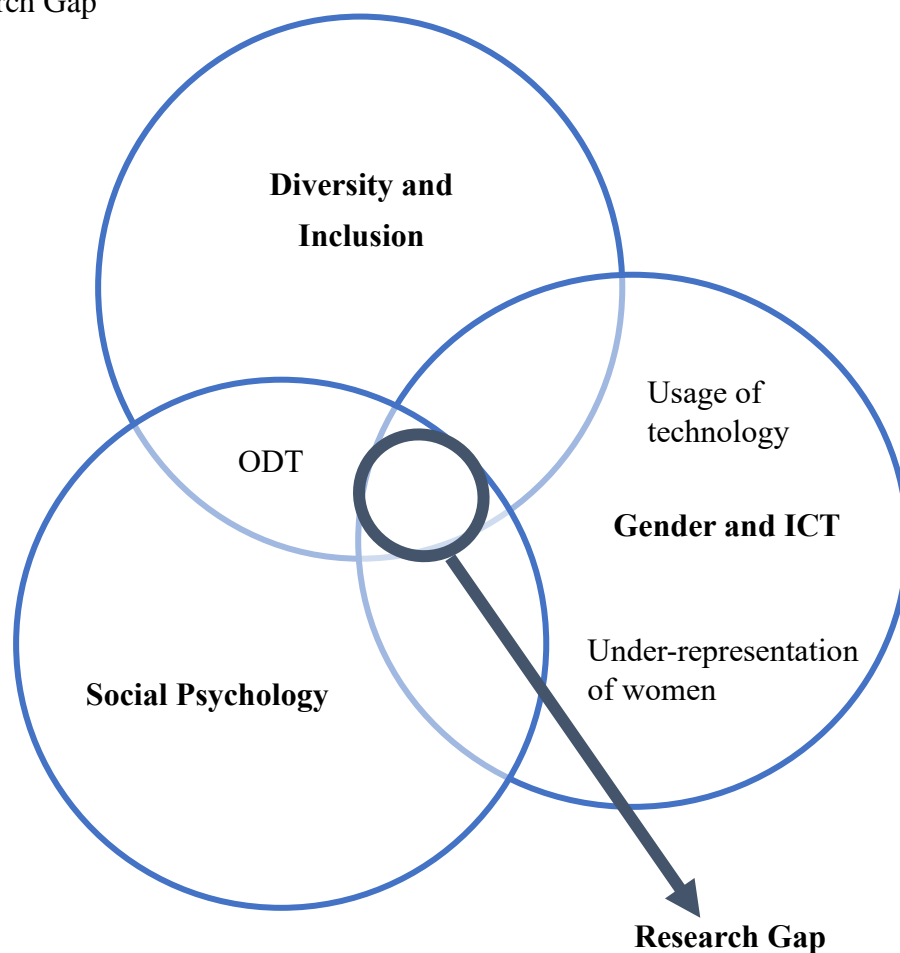
2000). Scholars, such as Armstrong et al. (2018) and Kenny and Donnelly (2020) briefly discuss the significance of inclusion to attract and retain women in ICT. A number of scholars stress the importance of inclusion (Chung et al., 2019; Mor Barak, 2015; Nishii, 2013; Roberson, 2006; Stevens et al., 2008) in the work context. However, many scholars highlight that inclusion remains under-explored both theoretically and practically. Roberson (2006) points out that inclusion is in the developing stage and Nishii (2013) agrees. “Despite the growing awareness of the potential benefits associated with cultivating inclusive environments, empirical testament of the power of inclusion is scarce” (Nishii, 2013, p. 1755). Further, there has been a lack of consensus on the nature of this concept which limits its utility (Shore et al., 2011). While inclusion has been studied by many scholars, such as Daya (2014), Fernández (2015), Fredette et al. (2016), Hwang and Hopkins (2015), Mor Barak et al. (2016), Sanyal et al. (2015), Swann et al. (2003) and Tang et al. (2015), a recent study has stated that inclusion is still a “growing area of research and practice” (Chung et al., 2019, p. 2). Especially, very little is known as to how it is experienced by employees and thus, there remains a need for more knowledge pertaining to the understanding of the term ‘inclusion’ from employees’ perspectives and how they manage the tension between the components of inclusion; belongingness and uniqueness.

A main way of approaching research related to gender in IT has been by utilising social constructionist approaches. Recently we have also seen approaches that can additionally address and incorporate intersectional issues (Mennega & de Villiers, 2021). Trauth (2017) suggests that both the exploration and application of existing theories and the development of alternative theories and frameworks can help to elucidate the obstacles faced by under-represented groups in ICT and adds that “the

research needs to theorise the phenomenon of inclusion/exclusion not technology adoption” (p. 15). Optimal Distinctiveness Theory provides the capacity to understand the phenomenon of inclusion/exclusion. This theory emerged in the discipline of psychology, to understand the need to balance belongingness (the need to develop and to maintain strong interpersonal relationships (Baumeister & Leary, 1995; Shore et al., 2011)) and uniqueness (the need to preserve a differentiated self-perception (Shore et al., 2011; Snyder & Fromkin, 1980)) in order to feel included in a work group. Recognising the need for more research in two fields: gender and ICT, and diversity and inclusion, the current study set out to explore women ICT employees’ experiences of work group inclusion using ODT as the theoretical lens. The existing literature lacks a comprehensive understanding of the inclusion experiences of women in ICT and the considerable body of research on inclusion calls for a more nuanced understanding of their findings. For instance, the relationship between belongingness and uniqueness, and how individuals manage the tension between the two feelings are given less attention in the current literature. The findings will be beneficial to women in ICT and the research aims to make several significant theoretical contributions to the literature on gender, women in ICT, inclusion, and ODT. For instance, the link between gender-related aspects (e.g., Ahuja’s themes) and ODT through expansion of Ahuja’s themes to the inclusion experiences of participants. In a practical sense, the findings of this study are useful to understand women ICT employees’ thoughts and feelings about work group inclusion and in considering women’s needs and expectations when designing workplace policies and practices related to diversity and inclusion.

Figure 1.1

Research Gap

**Research Aims:**

1. To provide an in-depth understanding of how women ICT employees view work group inclusion.
2. To contribute to theory by developing Shore et al.'s (2011) work on ODT in order to provide a more nuanced understanding of inclusion.

1.3 Research Questions

The fact that women are greatly under-represented in the technology field (Kenny & Donnelly, 2020; Serenko & Turel, 2021) may lead to women feeling less

included in work groups. In attempting to discover their inclusion experiences in work groups, I chose to study the relationships between inclusion, belongingness, and uniqueness, by using ODT as the theoretical lens. It is suggested by Andrews and Ashworth (2015) that inclusion should be studied at the individual level. That is, by studying how an individual in a work group feels included and how she/he feels about the tension to belong while retaining her/his uniqueness. This study sheds light on individuals' experiences and perceptions of work group inclusion by asking the women themselves about their experiences of inclusion, belongingness, and uniqueness. While exploring the experiences of women, the impact of contextual factors on inclusion is expected to emerge. The study is guided by the following research questions:

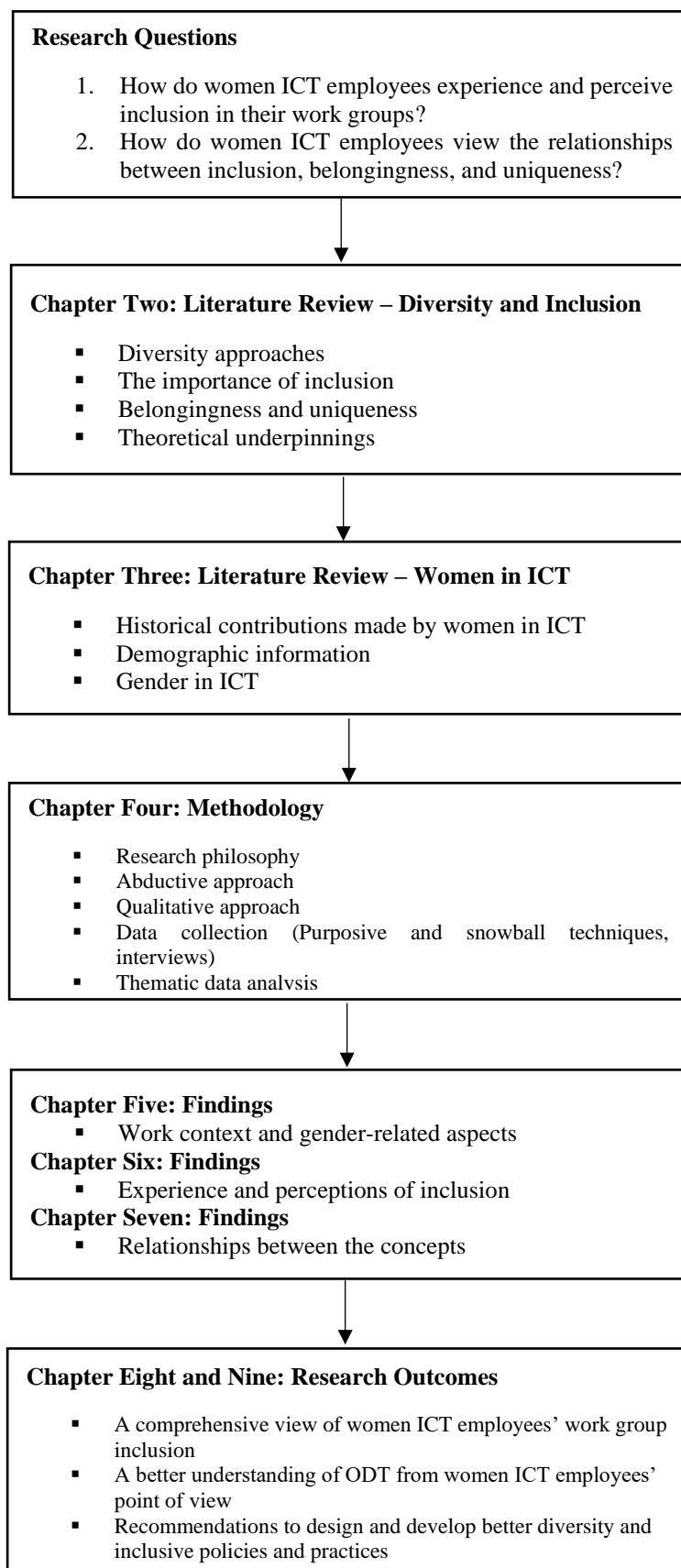
1. How do women ICT employees experience and perceive inclusion in their work group?
2. How do women ICT employees view the relationships between inclusion, belongingness, and uniqueness?

1.4 Structure of the Study

Figure 1.1 shows the main content of each chapter and an overview of the whole study. Chapters Two and Three discuss the literature on diversity and inclusion, and gender and ICT respectively. Chapter Four explains the methodology adopted to answer the research questions and Chapters Five, Six, and Seven present the findings. Chapter Eight discusses the findings in relation to literature and Chapter Nine is the final chapter, which explains the theoretical and practical contributions made by this study.

Figure 1.2

Overview of the Study Context



1.5 Summary

The current chapter introduced the research topic, providing a background to justify why this study is needed. The research aims and questions which guide my inquiry have also been stated. My overall aim is to contribute to knowledge about women in ICT by focusing on inclusion through the lens of ODT. Specifically, this study explores how women ICT employees experience and perceive work group inclusion and will contribute gender nuance to Shore et al.'s (2011) work on ODT. The present study provides an understanding of how women ICT employees view the relationship between inclusion, belongingness, and uniqueness, which are the key concepts used in ODT. The findings of this study will benefit organisations by assisting in the design and development of better policies to address the needs of women ICT employees. The findings identify what inclusion means to women in ICT, what factors impact inclusion and how they view the fulfilment of belongingness and uniqueness needs. The next chapter, Chapter Two, discusses the first area of literature needed for this study – literature on diversity and inclusion.

Chapter Two: Diversity and Inclusion

2.0 Overview

This chapter provides an in-depth discussion of relevant literature related to diversity and inclusion. This chapter begins by discussing definitions of diversity and moves to an overview of historical approaches to diversity in organisations and how these have changed over time leading to the present focus on inclusion. Next, definitions of inclusion are discussed and provided, followed by an extended discussion of the concept of inclusion, which is the focus of this study. This section discusses definitions and distinguishes two discrete concepts employed in this study; belongingness and uniqueness, which are both important to inclusion. That is, Shore et al. (2011) state that in order for people to feel included in work groups, they need to experience both belongingness and also a sense of their own uniqueness. I employ ODT, a theory that explains the tension between belongingness and uniqueness, in this thesis and so ODT is introduced and discussed in detail. Optimal Distinctiveness Theory and related concepts, such as diversity are presented in this chapter to demonstrate how they relate to the two research questions. The concepts of belongingness and uniqueness are central to this study as the study explores women ICT employees' experiences and perceptions of their work group inclusion and how they view the relationships between these concepts.

2.1 Definitions of Diversity

In this section, various definitions of diversity are discussed and the definition that guides the present study is justified. As Kapoor (2011) notes, previous research and practices tended to restrict diversity to consideration of women and minorities. Currently, diversity is defined more broadly through the lens of inclusion. The positive side of this is that it includes all the primary dimensions of diversity, such as disability,

ethnicity, gender, race, religion, sexual orientation, and even the secondary ones, such as geographic location and work style. While most studies focus on dimensions, such as age, ethnicity, gender, and other dimensions, such as disability, experience, marital status, personality, religion, sexual orientation, skills, and values also play important roles in diversity (Guillaume et al., 2014). Hence diversity can be defined by using one, or multiple dimensions.

In a work group, both primary and secondary dimensions of individuals matter. A diverse workforce includes, “a variety of personal and social bases of identity, including race-ethnicity, gender, age, socioeconomic status, religion, sexual orientation, country of origin, etc.” (Allen, 1995, p. 144). A work group has individuals with many differences and Özbilgin et al. (2019) claim that diversity is about differences not simply based on ethnicity and gender, but every small detail. This view implies that every single difference of an individual matters. Not simply the primary dimensions, but secondary dimensions, such as educational background, lifestyle, family status (Indoria et al., 2017), and working style (Kapoor, 2011), also play a role in differentiating individuals. Over the years, scholars, such as Harrison and Klein (2007) and Harrison and Sin (2006) have defined diversity according to the socio-demographics they had focused their studies on.

Harrison and Sin (2006) and Janssens and Zanoni (2005) view diversity as a *collective* concept. Harrison and Sin (2006) define diversity as the “collective amount of differences among members within a social unit” (p. 5). They define the concept by focusing on group diversity and consider several dimensions of human differences, such as abilities, attitudes, beliefs, cognitive styles, perceptual orientations, personality dimensions, skills, and values of a group. They propose this definition after reviewing past studies and by considering how the authors had studied constitutive

and operational definitions, their approaches, and measures used. Harrison and Sin stress the word collective since there are many ways to ‘add differences’ and they prefer to signal diversity as a collective concept in their definition. This means that diversity is a construct that refers to all the differences of an individual. Moreover, they highlight that their definition cannot be used on an individual, but a group of people. Similarly, Janssens and Zanoni state that diversity is a collection of differences. Individual attributes when compared to another, could be different and in order to highlight the difference, the attributes need to be compared. This comparison is made against another person or a group of people. Therefore, diversity occurs when there is more than one person or a collection of people. A group of people has to be present for differences to be highlighted between members, whereas an individual’s differences cannot be assessed on their own. Therefore, differences are understood in relation to others.

While the previous definitions focus on the collective aspect of differences, diversity can also be defined by highlighting a single attribute of individuals in a work group. One such definition of diversity is that it is, “the distribution of differences among the members of a unit with respect to a common attribute” (Harrison & Klein, 2007, p. 1200) with the common attributes being ethnicity, gender, pay, task attitude, or tenure. The definition includes the significant points of the term ‘diversity’, such as the differences being highlighted in relation to other members and the common attributes among them. These characteristics are integral to bringing meaning to the concept of diversity. As a study that focuses on the dimension of gender, I elect to look at diversity through the definition by Harrison and Klein since studies that focus on the dimension of gender, such as Fernández (2015) and Richard et al. (2013) use the same definition. While there are numerous definitions of the concept, one of the

most remarkable aspects of diversity is that it could be defined by taking either one or many dimensions of individuals. In the current study, the dimension that is primarily addressed is gender.

2.2 Historical Approaches to Diversity

This section discusses the literature relevant to diversity approaches as it relates to inclusion. Diversity as a concept began to be discussed in the scholarly literature in the 1960s in the USA. When women and minorities started entering the workforce, legislation was introduced to curb discrimination at workplaces (Herring & Henderson, 2012; Kelly & Dobbin, 1998; Mor Barak, 2000). A social movement, which fought to end discrimination encouraged to create two enforcement programmes, Equal Employment Opportunity (EEO) and Affirmative Action (AA). Both programmes aimed to reduce the problems faced by minorities and women in the US workforce and to foster fair employment practices in the workplace. The purpose of EEO was to promote equality and equal access to every person regardless of age, race, and sex (Leonard, 2003) and EEO was encouraged for employers. Enhancing organisational performance while implementing EEO policies was challenging for employers (Kossek & Pichler, 2006). Affirmative Action was the other set of policies introduced by the US government and was formed to prevent discrimination when identifying, recruiting, promoting, and retaining employees of marginalised groups who have suffered discrimination in the past (Greene & Kirton, 2009; Herring & Henderson, 2012; Kuklenski, 2021). The affirmative action programme was a moral and social obligation to rectify past wrongdoings.

Various political changes impacted EEO and AA programmes, but employers continued to adopt anti-discrimination policies. Policymakers formed a new set of anti-discrimination policies and practices, which were more business-friendly and

voluntary to employers (Greene & Kirton, 2009; Kelly & Dobbin, 1998) and it was called diversity management. The underlying theme of diversity management is embracing differences of individuals (Greene & Kirton, 2009; Herring & Henderson, 2012), and this approach focuses on improving organisational performance more than EEO and AA (Amirkhanyan et al., 2019). Diversity management became a well-recognised approach to manage diversity in the workplace and was/is in place in many organisations around the world, including New Zealand, the setting for the present research.

The topic of diversity management has been significant for academics and practitioners for over 40 years (Chung et al., 2019). Diversity management is defined as the utilisation of human resource management practices to increase, or maintain the variation in human capital on some given dimension(s) and/or ensuring that variation does not hinder the achievement of organisational objectives rather using the human variation to support the achievements (Olsen & Martins, 2012). Ensuring fair conditions of work such as consistency in selection processes, employee performance appraisals, equal pay, ensuring fairness in access to training and career development opportunities, and actively retaining diverse employees are essential to modern HRM practice (Olsen & Martins, 2012; Shen et al., 2009).

Effective use of diversity management practices can create a positive experience for employees. Benefits to employees include communication, reducing discrimination and harassment, employee well-being, improved job engagement, equal opportunities, and fair treatment (Özbilgin et al., 2019; Thomas & Ely, 1996). Thomas and Ely (1996) highlight that linking diverse employees' perspectives with the organisation's strategy, process, culture, and market would be beneficial to organisations to enable employees' knowledge and skills to be used effectively. The

benefits to organisations from diversity management are that diverse groups bring a range of knowledge, information, and perspectives, as opposed to homogenous groups, who tend to provide similarity which may not promote innovative thinking (Thomas & Ely, 1996). Diversity provides benefits to both employees and organisations.

The common idea behind all these approaches, such as EEO, AA and diversity management is equality for all individuals. The purpose of implementing diversity policies is to lessen discrimination and prejudices in order to unleash the potential benefits of diversity to employees and organisations (Ferdman & Sagiv, 2012). There is no single right way to manage diversity (Özbilgin et al., 2019), therefore it is important to identify the fundamental objective of these approaches. Despite the differences in individuals, every individual should feel accepted and respected. As a result, the approach that is currently being adopted by practitioners and scholars to manage diversity is inclusion. Figure 2.1 shows the different approaches used for diversity.

Figure 2.1

Approaches Used for Diversity



Note: EEO – Equal Employment Opportunity, AA – Affirmative Action, DM – Diversity Management, D and I – Diversity and Inclusion

There is a misconception that diversity and inclusion are similar concepts, so it is important to note that they are two separate concepts, as Roberson's (2006) study states. While Pless and Maak (2004) explain diversity as the process of balancing the similarities and differences of individuals, Sherbin and Rashid (2017) claim that diversity is only the representation of different individuals in a workplace, or in a work group, and inclusion is the process through which diverse individuals have equal participation and opportunities. The point highlighted by Sherbin and Rashid suggests that diversity is the state of being different. When individuals from different categories are put into a work group, there is a tendency to categorise them based on various differences, such as ethnicity, gender, and nationality (Harjoto et al., 2018) (see Section 2.3.6 for a discussion on categorisation). The categorisation may lead to problems between members of the work group.

The representation of diverse individuals alone is not beneficial to individuals unless the barriers they face are effectively reduced. The recruitment of diverse individuals may be a strategy that an organisation adopts for marketing opportunities leading to the perception of lip service, which is the misalignment between what the organisation brands itself to the outside world as the actual experiences of employees (Harris, 2020). This is where inclusion comes into play as it is the process through which every individual irrespective of differences is included. While equality is an ideal, inclusion can be considered as a tool to pursue equality.

There are policies and practices to protect individuals in workplaces (Holck et al., 2016). These policies, previously known as diversity policies, are now called diversity and inclusive policies. In New Zealand, it is reported that organisations are increasingly implementing diversity and inclusive policies since state-owned

enterprises are legally bound to be ‘good employers’ and NZX-listed companies are encouraged to make their diversity policies public and explain how they would improve diversity (McCready, 2017). According to a survey conducted by Diversity Works (2019), developing inclusive policies and practices is an important goal for organisations in New Zealand. Having recognised the advantages of diversity, many organisations in New Zealand are adopting diversity and inclusive policies and practices and women have been a major focus (Diversity Works, 2019). The country is utilising its diverse population in order to achieve greater performance and prosperity for organisations and the country (Cassidy-Mackenzie, 2016). If the policies and practices of organisations are effective, they should make individuals feel included in the workplace. This study provides a comprehensive understanding of women ICT employees’ experiences by exploring their perceptions and views.

2.3 Introducing Inclusion

This section discusses the concept of inclusion in detail. The definitions of inclusion, the significance of inclusion, ODT and belongingness and uniqueness are reviewed.

2.3.1 Inclusion and its Various Definitions

The concept of inclusion has become significant for HRM in recent years and is becoming popular in organisations, as workforces are becoming more demographically diverse. The definition of inclusion is not agreed upon by scholars, or practitioners, as various scholars define the term in different ways (Chung et al., 2019; Shore et al., 2011). Inclusion has been defined from both behavioural and perceptual perspectives. The present study adopts the perceptual perspective, which emphasises how included participants perceive themselves. Since the concept of inclusion has an ambiguous meaning in practice, below I discuss in detail the

difference between behavioural and perceptual definitions. The discussion begins with Ferdman et al.'s (2010; 2009) explanations of behavioural and perceptual perspectives, as they clearly distinguish the two categories.

Perceptual inclusion is the internal sense of whether an individual feels included or not. Inclusion is understood as to whether or not, based on the individual's actual experiences, they perceive themselves to be included (Ferdman et al., 2010). Ferdman et al. (2010) elaborate that an individual links her/his perceptions to the environment in which she/he works. The reason is that an individual makes sense of their experiences through their perceptions of their environment. The environment includes whether the individual feels accepted, authentic, engaged, fulfilled, respected, safe, supported, trusted, and valued. Thus, although perceptions of inclusion are internally developed (within an individual), individuals' experiences in the work group context makes an impact on perceptions. As a result, the current study does not solely focus on the individuals' perceptions of inclusion but captures individuals' experiences of inclusion in a work group context.

The other form of defining inclusion is the behavioural approach. The behavioural approach is defined as, "the behaviours manifested by a person and her or his work group members, together with the organisational policies and procedures, that foster an inclusive climate" (Ferdman et al., 2009, p. 3). These behaviours include showing a willingness to learn, dealing with differences, using others' voice, and representing and acknowledging others. The behavioural aspect is useful for scholars who study the positive outcomes of inclusion for individuals. The current study mainly focuses on women ICT employees' experiences of work group inclusion and do not extend to the behavioural approach of inclusion.

Other researchers have added to the understanding of the subjective experience of inclusion. Miller (1998) defines inclusion as the ability of diverse individuals to be able to participate and to contribute to organisational tasks. While there is a need for individuals to be actively involved in organisational tasks, I believe that this definition is incomplete. Inclusion means more than the involvement of individuals working in a work group. The holistic idea of inclusion, which is an individual's need to retain her/his uniqueness is not covered by Miller, but it is important to note that individuals may need to feel appreciated and respected for their uniqueness as well.

A similar idea to Miller's (1998) definition is given in another prominent definition of inclusion, which conceptualises inclusion as centrality (O'Hara et al., 1994). Inclusion is defined in terms of access to organisational information, involvement in decision-making, and job security (Mor Barak & Cherin, 1998; O'Hara et al., 1994). While this is a useful definition that identifies several important factors for inclusion, other factors are also significant. For instance, it is evident that these organisational factors are highly rank-sensitive and thus, insufficient to study inclusion (Janssens & Zaroni, 2008). Rank-sensitive means that involvement may depend on an individual's rank in the organisation. Thus, an individual's ability to access organisational information and be involved in decision-making, even at the work group level, may depend on their role. This point implies that not all employees would have equal access to these areas in workplaces, as the access would depend on job role and seniority. According to this definition, only those who hold high positions in organisational structures are likely to feel included in the organisation. For instance, a lower-level employee, such as a technical support assistant will not be able to get involved in decision-making as much as a technical support engineer who is able to access all the information and be involved in decision-making in the work group.

Another perceptual definition of inclusion is an individual's feeling of acceptance and feeling as an insider (Pelled et al., 1999). This definition combines two aspects together. One is the employee's need to feel like an 'insider' and the other is the 'acceptance' that an employee seeks from other group members. In contrast, Ferdman et al. (2009) acknowledge that an individual's environment has to include many factors for one to feel included in a workplace. While insider status and acceptance are part of those factors, other factors, such as respect, trust, and value play roles in shaping perceptions of inclusion (Ferdman et al., 2009). These form the overall experience for an individual. It is noticeable that Pelled et al.'s definition of inclusion only explains part of the process (the belongingness component) since it does not capture other factors that Ferdman et al. discuss. Factors, such as respect and value help individuals to retain their unique attributes in the workplace. As much as an individual seeks acceptance and insider status from the work group, individuals also enjoy appreciation of their unique attributes.

Another perceptual definition, which is widely accepted in the academic field (Tang et al., 2015), aims to capture all these elements of inclusion. The elements have been covered under two broad categories, which are the individuals' urge to feel they belong to a group as well as their urge to be unique. Even though the two aspects may seem completely different from each other, Shore et al. (2011) combine them to develop a two-dimensional definition of inclusion. "Inclusion is the degree to which an employee perceives that he or she is an esteemed member of the work group through experiencing treatment that satisfies his or her needs for belongingness and uniqueness" (Shore et al., 2011, p. 4). The two concepts, belongingness and uniqueness, are included in Shore et al.'s definition as inner desires, which are developed within individuals to form their perceptions of inclusion in the work group.

This definition discusses two different senses of individuals, which combine to form the experiences and perceptions of inclusion. The first need is to be accepted as a part of the work group and the second is to maintain her/his distinctiveness as an individual. Ferdman et al.'s (2010) definition of collective 'Experience of Inclusion' (EOI) has been framed to give a similar meaning. They define the EOI as, "the extent to which people in a group feel accepted, engaged, safe and valued" (Ferdman et al., 2010, p. 16). Furthermore, Ferdman et al. elaborate that it refers to the extent to which an individual relates her/his experiences of inclusion in the group. Some of the previous definitions of inclusion, e.g., Miller (1998); Mor Barak & Cherin (1998) and O'Hara et al. (1994), emphasised what organisational leaders do to make individuals feel included while Shore et al. stress individuals' perceptions and their sense of belongingness and uniqueness.

Jansen et al. (2014) adopt the definition provided by Shore et al. (2011), but instead of belongingness and uniqueness, they suggest that belongingness and authenticity are the components of inclusion. They argue that authenticity is more appropriate than uniqueness as it is applicable to the majority of the group members and not limited to the minority only. For instance, if a woman is working with a group of men, according to Jansen et al., their definition of inclusion is applicable to the men as well since they are also authentic in the work group. This argument is based on their idea that valuing uniqueness is insufficient to promote perceptions of inclusion. They suggest that an individual's perceptions of inclusion depend on the behaviour of other group members. Although Jansen et al. seek to refine the two-dimensional construct positioned by Shore, et al., they fall short of sufficient empirical evidence to support their statement, a point that is elaborated upon later (see Section 2.3.7).

The current study is guided by Shore et al.'s (2011) definition. Their definition discusses the importance of belongingness and uniqueness in making an individual feel included in a work group, and so this is explored more later in the chapter.

2.3.2 A View on Perceptions and its Association with Inclusion

Inclusion is typically associated with the term 'perception'. Since scholars, such as Jansen et al. (2014), Mor Barak (2014) and Shore et al. (2011) define inclusion from a perceptual perspective, in the current study, inclusion is treated as a perceptual phenomenon, which is linked to experience. There is a reason for exploring inclusion perceptions. Ferdman (2014) recommends inclusion to be assessed through individuals' perceptions and interpretations, as this approach could provide valuable insight into how they feel included or otherwise. At the same time, the aim of the current study is not to explore the behaviours of individuals resulting from their perceptual state.

In the current study, perception is simply defined, as the process by which individuals interpret and organise sensations to create a meaningful experience of the world (Lindsay & Norman, 1977; Sokolowski, 2008). When an individual is confronted with a situation, she/he interprets the situation based on experience. A perceptual definition of inclusion focuses on the individual's interpretation of their direct experience.

An individual's interpretation of their experiences in the work group helps them to evaluate whether they feel included in the work group. Mor Barak (2000) emphasised the importance of perceptions by stating that individuals assess their positions in the group, or organisation through perceptions and linking perceptions to evaluation. "Perceptions of inclusion or exclusion, therefore, are a form of an on-going

personal evaluation” (Mor Barak, 2000, p. 53). It is their perceptions of inclusion or exclusion that inform them of their position in the work group. Mascareño and Carvajal (2015) add that there is never a state of full inclusion or full exclusion, the two co-exist. Thus, the current study treats inclusion as a dynamic experience where people sometimes feel included and sometimes feel excluded with different degrees of intensity.

2.3.3 Work Group Context

As noted in the above section (see Section 2.3.2), an individual’s perceptions are shaped by the experiences she/he gains while operating in the work group. A work group is defined as a collection of two or more people who perform relevant tasks by sharing one or more common goals, who interact, are interdependent, and maintain and manage boundaries while being embedded in an organisational context (Kozlowski & Bell, 2003). In an organisational context, most individuals are likely to work in groups. From the above definition, it is apparent that individuals work together towards a common goal and during this process, they exchange many ideas and information. As reported by Kozlowski and Bell, interdependence and interactions are critical in work groups, as individual inputs, outcomes, and goals are all linked. They furthermore elaborate that interpersonal relations are essential to build communication, supportiveness, and trust among members. Interactions between women and men in workgroups are likely to be beneficial for both parties. In male-dominated fields, informal interactions in work groups are likely to shape women’s experiences (Wright, 2016) because work groups are key sites in which inclusion and exclusion can happen.

When exploring individuals’ experiences in a work group setting, the contribution of work context factors is inevitable. Thus, when studying the inclusion

experiences of women ICT employees, certain contextual factors related to their work group may emerge. Hence, it is useful to discuss the work group context since work groups are key areas where individuals find meaning which in turn will influence their inclusion perceptions (Buis et al., 2019). Shore et al. (2011) identified some of the contextual factors that might influence an individual's experiences in a work group.

The first key aspect of work group context is 'inclusiveness climate'. As proposed by Shore et al. (2011), inclusiveness climate includes diversity climate and fairness systems. Regardless of individual differences, all people desire to experience fair treatment. The 'climate for opportunity' model introduced by Hayes et al. (2002) focuses mainly on individuals experiencing equal opportunities and this is the basic view behind the inclusiveness climate. Nishii (2013) expands this concept of inclusiveness climate by including fair employment practices, interpersonal integration, and individuals' involvement in decision-making. Her study shows that an inclusive climate reduces conflicts where diverse groups are working together and she emphasises that fair treatment is a basic need for every individual.

The second aspect is 'inclusiveness leadership', which forms management decisions, philosophy, strategies, and values (Shore et al., 2011). The organisational system is top-down and responses are bottom-up (Kozlowski & Bell, 2003). Work group leaders play an important role in creating an inclusive environment as leaders' behaviour towards employees impacts employees' experiences. Individuals can feel included in a work group if their leaders facilitate it. For instance, if there is some resistance to inclusion from certain group members, leaders are crucial in taking initiatives to help resolve the problem (Wasserman et al., 2008). Nembhard and Edmondson (2006) define inclusive leadership as "an invitation and appreciation for others' contributions" (p. 947) and suggest leaders' actions are inputs that promote

inclusion in work groups. Other researchers agree that leaders can foster a climate for inclusion in workplaces (Boekhorst, 2015; Nishii & Mayer, 2009). Randel et al. (2016) state leaders have “more proximal influence” (p. 217) because they are highly visible to workers, often nearby, and powerful influencers of behaviour. It seems that leaders are likely to impact group members’ needs for belongingness and uniqueness through leadership. That is, they can help facilitate feelings of cohesion in workplaces whilst still enabling staff to feel like they have unique qualities that are valued. Boekhorst (2015) also asserts that leaders can shape individuals’ perceptions of work groups, which includes individuals’ experiences of inclusion, adding more evidence that leaders’ role is crucial. In line with Shore et al.’s work, Randel et al. found that leader inclusiveness helps fulfil employees’ belongingness and uniqueness needs and creates a positive diversity climate in work groups. As per the findings of Randel et al.’s study, inclusiveness leadership and diversity climate have a positive impact on individuals’ helping behaviour towards leaders.

The third contextual factor is inclusiveness practice, which consists of the fulfilment of belongingness needs and fulfilment of uniqueness needs of employees. According to Shore et al. (2011), these practices facilitate inclusion at workplaces. This study mainly focuses on belongingness and uniqueness as they are necessary to understand individuals’ experiences of inclusion (Chung et al., 2019).

2.3.4 The Significance of Inclusion

Inclusion is important to consider at two main levels. Firstly, inclusion is beneficial for the effective management of for-profit, non-profit and government organisations (Mor Barak, 2015). Secondly, in addition to benefits provided for organisations, inclusion is also beneficial to individuals. As this study focuses on individuals, the benefits of inclusion to individuals are explained in detail in this

section. Ideally, employees should feel appreciated, involved, respected, safe, and valued, irrespective of their differences when they are included (Ferdman et al., 2010). In one of his recent studies, Ferdman (2017) supports his previous work by stating that inclusion enables individuals to feel safe and at ease and adds that individuals also learn to be mindful and sensitive to others. This point implies that individuals who feel included also feel content, which may have a flow-on effect on other group members who may then also feel content.

Inclusion is also accepting, appreciating, and respecting people's opinions. Individuals have noted they can fully engage themselves in organisational tasks as their complete selves when they feel included (Shore et al., 2018). When included, individuals are more likely to feel confident to participate, enhancing their ability to contribute to organisations. Individuals take pleasure in contributing their opinions. Ferdman (2017) furthermore elaborates that when individuals are heard and appreciated, they are more likely to face challenges by moving beyond their comfort level. When an individual is not heard, recognised, and valued, their experience does not improve, which results in the person not performing to the best of their abilities (Pless & Maak, 2004). Inclusion is also about encouraging individuals to contribute.

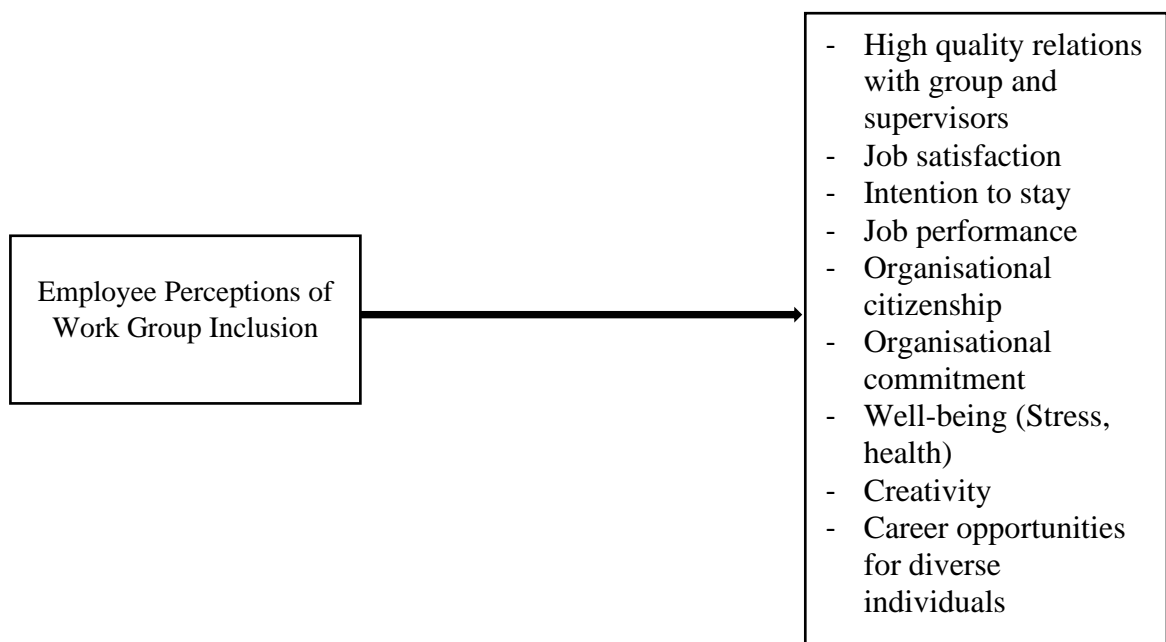
A key researcher on inclusion influential in this study is Mor Barak (2000). Mor Barak researched inclusion in the field of social work, with a strong focus on cultural sensitivity and the role of ethics in diversity practice. Mor Barak's work is important for the current study because it reveals how the consequences of diversity can be understood by using inclusion. Although her work is in the social work field, she has created a theoretical model of inclusion based on research findings. Her model illustrates how an individual senses inclusion or its opposite 'exclusion' as a result of the exchange between personal characteristics and the organisational environment.

The model presents the ‘fit’ between employees’ personal characteristics and the organisational environment and thus shows the factors that can contribute to an individual feeling welcomed and valued in an organisation. If the individual is not satisfied with the way her/his values are supported by the organisation, there could be adverse results on her/his well-being, commitment, job satisfaction and task effectiveness.

Shore et al. (2011) present some potential outcomes of work group inclusion (see Figure 2.2). These outcomes are beneficial to both individuals and the organisation.

Figure 2.2

Outcomes of Inclusion



Source: Shore et al., (2011), p. 15

From the above discussion on inclusion, it is noticeable that inclusion offers many advantages to the individual as well as to the organisation. Considering the variety of definitions of inclusion, as discussed earlier, in this study Shore et al.’s

(2011) definition is used to guide the exploration. The significant point of their definition is that employees sense inclusion when they experience belongingness and uniqueness. Employees interpret inclusion through their experiences in their closest work group. Belongingness and uniqueness are considered two fundamental needs of individuals (Chung et al., 2019; Randel et al., 2018), yet, not many studies have adequately addressed these two concepts (Randel et al., 2018). It is significant to explore the roles played by belongingness and uniqueness in making an individual feel included. Therefore, this study's specific focus is on belongingness and uniqueness aspects of inclusion and how individuals view the tensions between these concepts. Accordingly, these two concepts are discussed in the following sections.

2.3.5 Belongingness and Uniqueness: The Two Main Components of Inclusion

As suggested by Shore et al. (2011), when an individual feels that her/his needs for belongingness and uniqueness are fulfilled, she/he feels included. Shore et al. claim that these two factors foster inclusion amongst diverse employees in work groups. The importance of these factors to facilitate inclusion has been furthermore established in a recent study by Chung et al. (2019).

2.3.5.1 Belongingness. Human beings as social creatures need to form connections with others and depend on them (Leonardelli & Lloyd, 2016). Thus, individuals have a basic need to belong to groups (Chung et al., 2019). By belonging to a group, individuals are more likely to identify with the group. Belonging is also an emotional need. When individuals feel like part of a work group, accepted, and supported by other members, a sense of belonging is created in them (Baumeister & Leary, 1995) and inclusion is facilitated.

There is evidence that when an individual feels accepted by others in a work group, it motivates her/him to achieve shared goals (Cheryan et al., 2009). When individuals have a sense of connectedness with others, it makes them internalise the shared goals and motivations, which activates their motivated behaviour. Therefore, the insider feeling encourages individuals to fully contribute to group tasks and this is beneficial to the individual as well as to the work group.

Belongingness is beneficial to individuals, for as Den Hartog et al. (2007) assert, it can increase the levels of helping behaviour among group members. If an individual feels less connected or isolated, her/his willingness to help other group members may decrease. More importantly, when an individual's social connectedness is threatened, it may affect that person's motivation and well-being in a work group (Cheryan et al., 2009; Mor Barak, 2000) and well-being is vital for individuals.

Thus, belongingness is a fundamental human need that individuals in work groups like to experience (Randel et al., 2018) through acceptance and acquiring an insider status (Shore et al., 2011). All group members despite their differences expect to feel that they are part of the group. To achieve it, all members of the work group should accept the differences of individuals and connect with them. Hence, belongingness refers to an individual feeling of insider status, or a feeling of acceptance by the work group. There is another component of inclusion that is often placed as if it is on the other end of a spectrum of belongingness. This component is uniqueness, which is discussed in the next section.

2.3.5.2 Uniqueness. Uniqueness signifies the experience of individuals when they feel valued for their contributions and when they feel respected and are able to express themselves (Boekhorst, 2015). Swann et al. (2003) argue that individuals are

able to translate their unique perspectives into solutions for various problems. Thus, valuing uniqueness facilitates individuals to feel comfortable in applying their different contributions, knowledge, and perspectives to strategies and work processes in the work group.

An individual is likely to fulfil her/his uniqueness needs by voicing opinions and gaining recognition. Individuals seek appreciation for their opinions, feel the need for their voices to be heard and to voice on behalf of others in work groups (Chung et al., 2019; Ferdman et al., 2010; Randel et al., 2018; Swann et al., 2003). Individuals like to contribute to work tasks through their opinions if they are given an opportunity to do so. Scholars, such as Pless and Maak (2004) and Swann et al. (2003), acknowledge that an individual's need for uniqueness is fulfilled when she/he is recognised for her/his unique attributes and this recognition encourages individuals to perform better. Encouraging contributions, knowledge, and perspectives enable group members to perform the tasks better (Ferdman et al., 2010). Thus, according to the literature, individuals sense that their need for uniqueness is fulfilled when they feel appreciated, recognised, and valued (Pless & Maak, 2004; Randel et al., 2016; Shore et al., 2011).

Individuals do not like to feel included at the cost of losing their unique customs, features, and identities (Ferdman, 2017). However, this view does not mean that individuals prefer to be completely distinctive. As reported by Lynn and Snyder (2002), people are more likely to feel happy when they feel that they are reasonably different when compared to others. They also add that an individual's pursuit of difference should be encouraged and they acknowledge that individuals need to manage both uniqueness and belongingness or social acceptance. The above-discussed points on uniqueness agree with the discussion of Shore et al. (2011) on inclusion.

In summary, individuals become more connected to their work group when they feel that their unique ideas are recognised, as they are motivated to engage in, and generally enjoy contributing to group tasks (Ferdman et al., 2010; Swann et al., 2003). Other group members may feel negative or neutral about certain individuals applying their different knowledge and skills to group tasks as a result of other group members feeling threatened (Stephan & Stephan, 2000). For instance, men may dislike women sharing their views in a work group. These negative reactions could lead women to express their unique attributes less often. However, when individuals feel appreciated and valued, consequently the performance of the group should be enhanced. For instance, we would expect to see more creativity because there is a better exchange of a variety of ideas and opinions. As Ely and Thomas (2001) discuss, the integration and learning perspective in work groups add value when diverse knowledge and skills are shared. Their perspective outlines the importance of different experiences and skills of individuals; therefore, by capitalising on the strengths of groups members, work groups might be able to perform better than homogenous groups (Ferdman et al., 2010).

2.3.6 Various Perspectives and Approaches of Exploring Individuals in a Work Group

An individual's need to assimilate (belong) and be distinctive (unique) at the same time has been discussed by Brewer (1991). She introduced ODT (see Section 2.3.7 for a detailed explanation of ODT), which is an extension of Social Identity Theory (SIT). Both SIT and ODT are used as theoretical lenses to explore individuals in work groups. Before explaining ODT, it is important to describe what SIT is and why it is not used as the theoretical lens of this study.

2.3.6.1 ODT and SIT. Social Identity Theory was first introduced by Tajfel and Turner (1979) and is considered a fundamental contribution to psychology. The theory explains how people divide themselves into groups based on various dimensions, such as age, culture, gender, and social class. Group memberships are mostly based on positive or negative values and individuals tend to compare characteristics between their own group, which is called 'in-group' and other groups, which are called 'out-groups', to assess the values. Using different categorisation schemata to classify themselves, individuals find positive values in in-groups and negative values in out-groups. When people realise that they belong to groups, there is a tendency to divide the world into 'them' and 'us'. This division is done through the process of social categorisation. Accordingly, individuals prefer to belong to in-groups in order to increase their self-image and discriminate against out-groups (Harjoto et al., 2018). Tajfel (1982) further highlights the process of stereotyping, which causes people to find similarities within in-groups and differences between out-groups. The significant point is that individuals like belonging to groups where they can connect with other members and like to distance themselves from groups where they find differences in members.

In addition to this, Tajfel and Turner (1979) claim that the pressure to evaluate between in-groups and out-groups makes people differentiate themselves from each other. According to them, in-groups are formed through three inter-rated processes: in-group membership is internalised as a belief that one holds about oneself that helps her/him to identify with the group; the social situation allows for comparison between the in-group(s) and out-group(s); and the out-group is comparable based on proximity, similarity, and situational salience, as individuals do not compare themselves with every single out-group.

In workplaces, individuals may form unofficial groups based on these factors. For instance, men may find it comfortable to work only with male colleagues and avoid women due to the difference in gender. This can affect the cohesion of the work group where an individual connects more with similar members (Harjoto et al., 2018) and internalises the same behaviours and norms (Ashforth & Mael, 1989). While there is a possibility for certain group members to be excluded based on various categorisation schemata, scholars, such as Brewer (2007) and Randel et al. (2018) argue that SIT tends to overlook another fundamental human need, which is to be distinctive. Brewer, for instance, says that individuals can feel uncomfortable in situations where they lack distinctiveness, as they also feel the need to be unique. This is where ODT comes into play as it discusses both humans' need to belong as well as their need to be distinctive. This is a significant difference between SIT and ODT, as ODT goes beyond SIT to highlight that humans value their uniqueness in a work group.

There are two different perspectives on whether there is a link between social identity and self-esteem. Tajfel and Turner (1979) argue that in-group favouritism leads to enhanced self-esteem, whereas Brewer (2003) argues that in-group favouritism is derived from social identity and that self-esteem was insufficient to explain why individuals join in-groups. Brewer (1991) explains that social identities may not be voluntary or imposed, but chosen and therefore, self-esteem is not necessarily raised by identifying with a social group. The reason being that social identities can be based on fixed characteristics and may include multiple ones (Holck et al., 2016). For instance, some individuals are organically identified with groups that have negative value or lower social status, such as the physically impaired or LGBTI.

Hence, self-esteem is not always the basis for individuals to join in-groups since some cannot necessarily choose group identification (Martiny & Rubin, 2016).

Social identities are understood to be created through the social system using social categorisation depending on one's ethnicity, gender, nationality, and sexual orientation (Harjoto et al., 2018). Individuals may fall into those groups without realising a need. For instance, a Middle Eastern person can be identified with a group of Middle Eastern people (in-group). In this example, their social identity is attached to the social system of ethnicity, even though that person may not have joined the group voluntarily. Thus, the individual may or may not expect her/his needs for belongingness and uniqueness to be fulfilled by the in-group. Yet, I studied ICT employees in a work group context who joined work groups voluntarily, or obligatorily. As a result, they may feel the need to belong and also to be distinctive in the work group and these needs may not necessarily be created by the social system. Considering the factors discussed above, I argue that SIT is less likely to help understand people's experiences of inclusion in a work group as much as ODT does.

However, there are inclusion-related studies that use SIT as the theoretical lens. In a review focusing on inclusive leadership, Randel et al. (2018) use SIT together with ODT to build their conceptualisation of inclusive leadership. Their review does not specifically address the gender dimension of diversity but identifies practices that leaders can follow to facilitate inclusion in work groups. Randel et al. do not solely use SIT as the theoretical lens since they note that SIT does not discuss the need for distinctiveness relative to other group members.

Mor Barak et al.'s (2016) study on diversity management climate and inclusion, employs multiple theories. According to them, the fact that social identities

connect individuals to multiple in-groups makes it difficult to select which characteristic is most significant. They use SIT, ODT, social comparison theory, relative deprivation theory, and intersectionality for their study. Mor Barak et al. found diversity management practices to be influencing inclusion and assert that organisations ought to focus on developing inclusive policies and practices.

Findler et al. (2007) studied organisational culture and how it connects with individuals' perceptions of inclusion or exclusion, their sense of well-being, job satisfaction, and organisational commitment in a diverse context. While inclusion is not the main focus of the study, Findler et al. use SIT to categorise participants into in-groups and out-groups. Thus, previous researchers who have studied inclusion, e.g., Mor Barak et al. (2016) and Randel et al. (2018) have combined SIT with other theories presumably because SIT is inadequate to explore inclusion. While it is understood that SIT is a widely accepted theory, using SIT as the theoretical lens for this study may not be ideal since ODT better captures the sense of inclusion as a whole.

2.3.6.2 ODT and Gender-related Studies. Relevant studies using ODT have made gender a focus in the past. Kao (2015) looked into women's perceptions of gender stereotypes in the mathematical field. Using ODT combined with SIT and social status theory, he studied nine mathematically gifted high school students in Taiwan. Findings related to ODT indicate that the feeling of belongingness of the participants is fulfilled by identifying themselves with other female students who were not mathematically gifted. Similarly, the participants' need for uniqueness is fulfilled by differentiating themselves from non-mathematically-gifted-women and identifying more with masculine traits. Another study by Gonzalez (2016) examined gender dissimilarity (gender difference) and turnover intentions (intention to quit the job) of men and women, where ODT was used as the theoretical lens. Gonzalez's findings

indicate that demographic attributes interact with individuals' values to shape their turnover intentions. In his study, men's personal values match with their surroundings more than women's shaping men's turnover intentions. These two studies, Gonzalez (2016) and Kao (2015), which focus on both gender and ODT, provide findings relevant to gender and ODT. The current study takes a step further by combining two research fields, which are gender and ICT, and diversity and inclusion to provide a comprehensive view of inclusion and the gendered experiences of women ICT employees.

2.3.7 ODT and the Interplay between Belongingness and Uniqueness

The following section discusses the interplay between belongingness and uniqueness in shaping the experiences and perceptions of inclusion. In order to explain this interplay, ODT is discussed in detail, as it is the main theoretical lens that is used for this study.

Optimal Distinctiveness Theory deals with how individuals need a certain limit of similarity and differentiation compared to others in a work group. That is, an individual feels the need to achieve two opposing motives, the need to assimilate with other group members and the need to be distinctive (Leonardelli et al., 2010). According to ODT, these two states (of similarity and distinctiveness) could be reconciled when equilibrium is achieved between the need for inclusion and the need for differentiation (Brewer, 2003). Brewer (1991) proposed ODT and explained that two opposing needs must meet at a certain level. This happens within oneself and the point where they meet, or the point of equilibrium, is referred to as 'balance'. Accordingly, an individual fulfils the need to assimilate by identifying with in-groups and the need for differentiation through distinctions between in-groups and out-

groups. Thus, when an individual joins a work group, she/he seeks inclusion or assimilation; however, once it is achieved, she/he seeks differentiation.

The idea of ODT has been extended by Shore et al. (2011). Their review signifies that an individual requires both belongingness and uniqueness needs to be fulfilled at the same level. When a person finds that her/his need for belongingness and the need for uniqueness are both fulfilled at the same level, inclusion is expected to be achieved (Shore et al., 2011). Thus, an individual needs an optimal satisfaction level of both belongingness and uniqueness to feel included.

When two opposing needs are activated, a tension arises which emphasises the importance of balance (Slotter et al., 2014). The literature on ODT suggests that although both belongingness and uniqueness needs are important for individuals, certain situations may prompt either of these needs to be prioritised over the other (Shore et al., 2011). As a result, when one of the needs is addressed, the other has to be increased in order to keep them in balance, as required for inclusion. Hence, the need for belongingness, or uniqueness may be activated when one feels that there is an imbalance. It may not be so precise in reality, as some individuals may want to belong to a work group more than maintaining her/his uniqueness or may want to maintain her/his uniqueness and belong less to the work group.

The individual's need to fulfil both belongingness and uniqueness needs is discussed by Mor Barak (2000) and Pickett et al. (2002) as well. Mor Barak explains that certain events in organisations trigger employees to return to a comfortable level to achieve their self-esteem level. Furthermore, she states that employees attempt to become *over-included* by giving up on their unique attributes or *dis-include* themselves by giving up on efforts to become included. For instance, women may lose

their uniqueness while attempting to assimilate or avoid assimilation in order to retain their uniqueness. Both attempts are likely to be harmful to the individual and the work group. Thus, she implies that these two needs should be addressed at the same level. Likewise, Pickett et al. have a similar view. These views suggest that individuals seek their belongingness and uniqueness needs to be fulfilled at the same level to achieve the balance. On the contrary, Slotter et al. (2014) outline that the tensions of managing the two needs do not impact individuals' perceptions of relationships. They demonstrate that individuals tend to increase their individuality (uniqueness) when they are in a relationship with another person and the findings also highlight that there is a possibility to achieve both belongingness and uniqueness. Yet, it should be noted that Slotter et al.'s research focuses on romantic relationships, thus, it cannot be assumed that in a work group context where there are many individuals involved and stakes and obligations are different, the outcome will be the same.

The inclusion framework provided in Table 2.1 is from Shore et al.'s (2011) review and is based on ODT. According to Table 2.1, low belongingness and low uniqueness result in 'exclusion', which is the opposite of inclusion. This is the stage where the individual is not treated as an insider and her/his unique attributes are not recognised simultaneously. High belongingness and low uniqueness result in 'assimilation', where an individual is treated like an insider, but her/his uniqueness is not appreciated by peers and leaders. Similarly, low belongingness and high uniqueness result in 'differentiation', where a person's uniqueness is valued, but they are not treated as an insider in the work group. When both belongingness and uniqueness levels are high, inclusion occurs and the person feels like an insider while being able to retain her/his uniqueness.

Table 2.1*Inclusion Framework*

		Low Belongingness	High Belongingness
Value in Uniqueness	Low	<p>Exclusion</p> <p>The individual is not treated as an organisational insider with unique value in the work group, but there are other employees or groups who are insiders</p>	<p>Assimilation</p> <p>The individual is treated as an insider in the work group when they conform to organisational/dominant culture norms and downplay uniqueness</p>
	High	<p>Differentiation</p> <p>The individual is not treated as an organisational insider in the work group, but their unique characteristics are seen as valuable and required for group/organisational success</p>	<p>Inclusion</p> <p>The individual is treated as an insider and also allowed/encouraged to retain uniqueness within the work group</p>

Source: Shore et al., (2011), p. 5

Achieving inclusion can be problematic due to the apparent conflict between the need to belong and the need to be unique. Scholars, e.g. Chung et al. (2019) and Leonardelli et al. (2010), highlight what can be seen as a contradiction; achieving a sense of belongingness while maintaining the uniqueness of the individual. Ferdman (2017) argues these tensions may lead to conflict, frustration and a need for inclusion

that is unachievable. This happens as a result of conflicting ideas within oneself. For instance, the need for belongingness might prompt the individual to learn the way other members work to assimilate with them and the need for uniqueness may prompt them to do things her/his own way instead of learning from others because the salient feature is to be unique. However, Hornsey and Jetten (2004) argue that belongingness does not necessarily reduce uniqueness or vice versa. The fulfilment is not disturbed by an increase in any of the two components, belongingness or uniqueness, as it is feasible for people to retain their unique features while belonging to a work group. They identify eight strategies for individuals to retain distinctiveness while belonging to a group. For instance, joining a group that encourages individuals to express their individuality, being loyal to one's work group without conforming, and identifying themselves with subgroups are some strategies they propose.

Valuing one's uniqueness may not be applicable to all the members of a work group. Jansen et al. (2014) believe that valuing uniqueness is insufficient as the more prototypical the group members are, the less they benefit from *valuing uniqueness*. This means that white cisgender men, who can be the majority of group members, do not benefit from valuing uniqueness. For instance, in a group where the majority of group members are men, and few are women, the men will not essentially benefit from valuing uniqueness. In order to address what Jansen et al. see as a problem with uniqueness, they have considered conceptualising inclusion as belongingness and autonomy. However, given that autonomy can be understood as both task-related (what she/he is allowed to do) and identity-related (what she/he is allowed to be), and wanting to focus on the identity dimension of inclusion, they adopt the term 'authenticity', as a counter-balance to belongingness. Jansen et al. suggest that authenticity resembles uniqueness in ODT, but that it is a broader concept as it applies

to both the minority and the majority members of the work group. Hence, as opposed to Shore et al. (2011), they propose uniqueness to be replaced by authenticity as a component of inclusion.

The current study focuses on the view that belongingness and uniqueness work together to make an individual feel included and thus, the term 'uniqueness' suits better than authenticity. Uniqueness is a term that is widely used in the management field. Management scholars, such as Andrews and Ashworth (2015), Gotsis and Grimani (2016), Mor Barak (2015), Oswick and Noon (2014), Randel et al. (2018), Randel et al. (2016), and Sugiyama et al. (2016) use the term uniqueness when discussing inclusion. They all accept and use the definition by Shore et al. (2011), which is widely accepted (Tang et al., 2015). Jansen et al. (2014) do not provide sufficient empirical evidence for replacing the term uniqueness with authenticity: they do not provide sufficient justification as to how the term is applicable to both the minority and the majority of the work group; the set of characteristics they developed for authenticity is also similar to those of uniqueness; they fail to explain how the prototypical members of a work group can be the majority as it is not necessary for white cisgender men to be the majority in a work group; and they do not discuss the need for both belongingness and authenticity to be fulfilled at the same level.

As stated above, while ODT highlights that both belongingness and uniqueness needs should be fulfilled at the same level, individuals may have different needs. Some may prefer assimilation while others may prefer differentiation. Individuals may view inclusion through the fulfilment of either belongingness, or uniqueness needs in a work group. Hence, the current study focuses on how women ICT employees experience and perceive work group inclusion and how they view the relationships between inclusion, belongingness, and uniqueness. By studying how women interpret,

experience, and view inclusion in the New Zealand ICT context, ODT can be refined and this is a knowledge addition to the literature on ODT.

2.3.8 Research on Belongingness and Uniqueness

A few key studies have empirically explored both belongingness and uniqueness together. Janssen and Huang (2008) examined these concepts in a Dutch Bank by operationalising belongingness as team identification and uniqueness as individual differentiation. By identifying that individuals in workplaces have two fundamental human motivations to achieve, they found that team identification positively changes citizenship behaviour and that individual differentiation leads to creativity in teams in a Dutch bank. Similarly, Gu and Wang (2012) examined the two concepts operationalised in the same manner. They studied how team identification and individual differentiation interact to generate team performance. According to their findings, both team identification and individual differentiation could exist in groups and also contribute to performance in research and development teams.

The operationalisation of belongingness and uniqueness may appear ambiguous in the studies by Gu and Wang (2012) and Janssen and Huang (2008) since team identification is not a direct way to explore belongingness, and individual differentiation is not a direct way to explore uniqueness. Yet, it could be presumed that there is a close connection between the concepts they have used (team identification for belongingness and individual differentiation for uniqueness). Team identification has been defined as the extent to which an individual relates her/himself to the team's attitudes, behaviours, goals, and values and individual differentiation has been defined as the extent to which an individual perceives her/himself as different from other team members in terms of behaviours, feelings, and thoughts (Janssen & Huang, 2008; Turner et al., 1987; Van Knippenberg, 2000). The definitions of team

identification and individual differentiation seem similar to the definitions of belongingness and uniqueness respectively. However, these two studies mainly address the causal connection between team identification/individual differentiation and performance. Individuals' experiences and perceptions are not discussed and there is no reference to inclusion or diversity.

A study by Zheng et al. (2018) looked into follower perceptions of leaders' uniqueness and belongingness. One hundred and sixty participants of leader-follower duos participated in the study in a controlled environment and the results show that leaders' belongingness and uniqueness work together. Accordingly, when the level of belongingness is high in leaders, their level of uniqueness decreases and vice versa. Similarly, McCluney and Rabelo (2019) studied how women of colour manage the tension between the need to belong and the need to be unique. They assert that women of colour, in particular, have no control over their belongingness and uniqueness as a result of their visibility. This study has looked at the dimension of gender through the lens of ODT together with intersectionality. The attempt was to study organisational practices that promote gender equality. Being a conceptual study, it lacks empirical evidence which the present study provides in relation to gender and ODT.

It is thus noticeable that past studies emphasise the importance of both belongingness and uniqueness in inclusion (Boekhorst, 2015; Chung et al., 2019; Randel et al., 2016; Shore et al., 2011). Furthermore, the findings by scholars, such as Randel et al. (2016) are in line with the two themes that were generated by Shore et al.'s (2011) study. However, due to most of these being quantitative studies, they have been limited to pre-defined sets of questions. There is also a lack of studies, which explore how women ICT employees view the two feelings of belongingness and uniqueness.

The current study attempts to unfold women ICT employees' experiences and perceptions of work group inclusion as a whole with a significant focus on belongingness and uniqueness, using a qualitative and exploratory approach. The reasons for using a qualitative exploratory approach to investigate the phenomenon of inclusion are several. Firstly, qualitative research is better able to foreground the lived experiences of participants and privilege their voices (Creswell, 2013, 2014), providing more of an idea of unique motivations. Secondly, a qualitative approach is more likely to capture conflicting views as to whether individuals feel the need to fulfil both belongingness and uniqueness and the ways that individuals balance these two seemingly contradictory requirements for inclusion. Thirdly, the key researchers used to frame the present study - Shore et al. (2011), Randel et al. (2018), Pickett et al. (2002) and Mor Barak (2000) - all argue that further empirical work needs to address both belongingness and uniqueness, and qualitative work will be able to capture the nuances of experiences and perceptions of the key factors involved in inclusion. Finally, the current study focuses on a group of women in the specific context of ICT, and so a qualitative approach will enable better exploration of individuals' experiences and perceptions of inclusion in a work group and how women view the relationships between inclusion, belongingness, and uniqueness in a natural (uncontrolled) environment.

As Sherbin and Rashid (2017) claim, merely increasing work group diversity alone does not help employees to reach their full potential. A culture of inclusion is essential to make diversity work (Pless & Maak, 2004). Hence, I seek to provide a more comprehensive understanding of inclusion by building on the conceptualisation of Shore et al. (2011). While Shore et al.'s definition of inclusion refers to an individual's feelings and needs, and focuses on the individual within a group, not

many studies have explored perceptions of inclusion at an individual level. Whether individuals feel the need to manage these two feelings from within is the question that arises. In my opinion, other scholars have not given much attention to how gender and inclusion may interact and shape experiences and perceptions in the ICT field. Thus, the principal aims of this study are to increase the understanding of how women ICT employees view work group inclusion and to contribute to theory by adding knowledge on ODT.

2.4 Summary

This chapter began by highlighting the importance of managing diversity to reduce discrimination against women and minorities in workplaces. Over time many governments and organisations have changed their focus from encouraging, or ensuring diversity through legislative and ‘hard’ approaches, such as quotas to softer approaches, such as creating inclusive workplaces. This chapter has reviewed existing studies on inclusion that are relevant to the focus of my study on inclusion, especially studies that have used belongingness and uniqueness. The present study explores women ICT employees’ experiences and perceptions of work group inclusion and how they view the relationship between inclusion, belongingness, and uniqueness through ODT. Thus, when exploring women’s experiences, this study also looks into how individuals manage the tensions between belongingness and uniqueness. This study, therefore, aims to contribute to knowledge on experiences and perceptions of work group inclusion in women ICT employees in New Zealand and to contribute towards theory by modifying ODT. The next chapter of the study, Chapter Three discusses the context – the ICT field and the participants – women in ICT, in order to provide important background information for this study.

Chapter Three: Women in ICT

3.0 Overview

This chapter is the second of two chapters that reviews literature related to the main topics of gender and ICT. The aim of this chapter is to discuss literature about women in the field of ICT. The first section explains the historical contributions made by women in developing the computing field since women pioneers in computing are under-recognised. Following the historical overview of women in ICT, some demographic information is presented to demonstrate that the number of women ICT employees have remained low over the years. In the third section, arguments are detailed as to the reasons for the low participation of women in ICT. Organisational practices and their impact on women ICT employees are described in detail. This section focuses on three areas, which are women's career choice, career growth, and ICT culture. In the final section, I provide a summary of the key studies and themes in the literature relevant to this study. This chapter sets the background for the study as women's experiences of work group inclusion are influenced by the gendered context of ICT.

3.1 History

Women's contemporary experiences in the ICT profession cannot be understood without discussing the history of their participation in the field. Grier (2001) provides information on the history of the computing field. He says that, in the 1700s, computers were not machines, but people. The term, 'computer' referred to a human performing mathematical calculations and these humans were called "human computers" (Grier, 2001, p. 28). The human computers who performed hard mathematical calculations formed the discipline of computation. Grier adds that in order to perform computations rapidly at a low cost in the 19th century, Charles

Babbage developed the first machine/computer in England. Babbage called it the 'Difference Engine' and envisioned it to calculate mathematical expressions automatically.

While Babbage's attempt to build a computer is well-known, the involvement of Lady Ada Lovelace in the process of building the computer is rarely mentioned. Thompson (2019) acknowledges Lovelace's role in the development of modern computing. As a young mathematician, Lovelace wrote the first algorithms for Babbage's machine. Lovelace was interested in Babbage's idea of a modern computer, which could compute and store information. Lovelace wrote the set of instructions for the machine, which we now understand as a computer programme (Thompson, 2019). Thompson highlights that Lovelace can be described as the first computer programmer and it is important to note that the first computer programmer was a woman.

Women played a significant role in the field of computing during the Second World War. Candler's (2020) article gives an insight into women's contribution to the development of computing. The second world war required rapid computations and thus, in the USA, the development of the ENIAC (The Electronic Numerical Integrator and Computer) began in the 1940s. As reported by Candler, the programming of the ENIAC, the world's first digital computer, was done by six women. These women mathematicians enabled the machine to perform calculations rapidly and ensured that the output was accurate. The ENIAC six were Betty Holberton, Betty Jean Jennings, Frances Bilas, Kathleen McNulty, Marlyn Wescoff, and Ruth Lichterman.

Women continued to be central to the development of programming in the USA. According to Candler (2020), a woman mathematics professor named Grace Hopper contributed to making the computer more accessible to general users. In the

1940s and 1950s, together with some members of the ENIAC six, Hopper worked towards developing a user-friendly programming language and because of her efforts, open-source software is available for general use. Hopper, the ENIAC six, and many other women helped to develop early computers and provided a whole new discipline called ‘computer science’ for future generations (Candler, 2020).

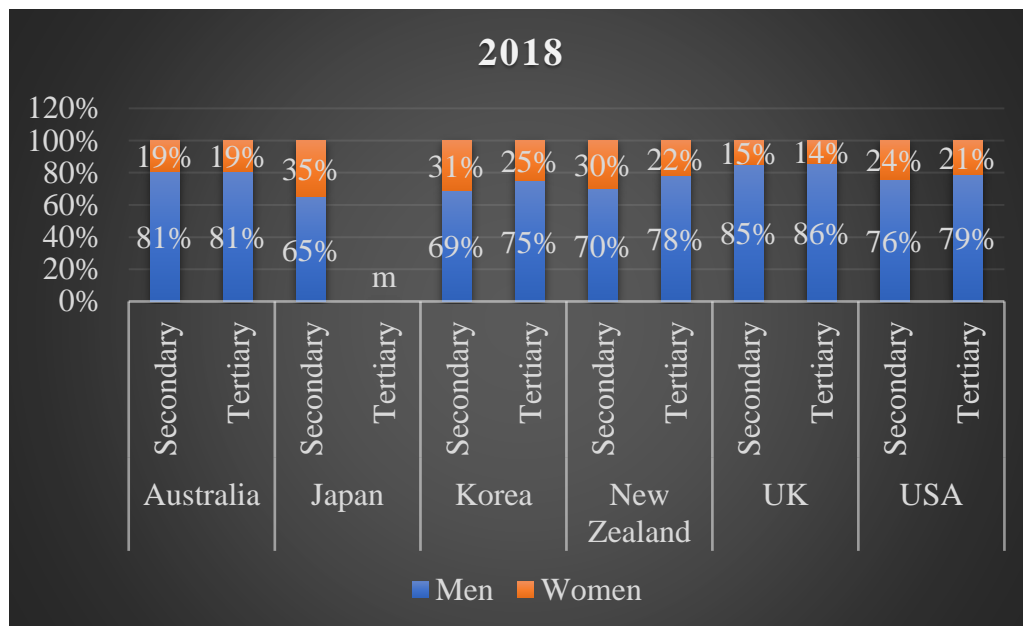
History unveils more women who enriched the field of computing with their knowledge. In the 1960s, Mary Allen Wilkes was a pioneer in the field of computer software in the USA. After working as a programmer, Wilkes was selected to work for the creation of LINC (Thompson, 2019). LINC was one of the world’s first interactive personal computers with a screen and a keyboard. Thompson acknowledges that Wilkes was one of the first to have a personal computer since LINC was sent to her house to complete the software writing. The stories about women are mostly recorded in informative-newspaper articles, e.g., Candler (2020), Grier (2001), and Thompson (2019), and this evidence shows they were highly skilled and fast in their work. In the past, many women have been involved in the programming of computers, which includes writing algorithms. It can be asserted that women have been involved in computing since the beginning of the field. Yet, today’s young generation is largely unaware of women’s earlier involvement in computing because women’s contributions are less recognised than men’s (McGee, 2018; Thompson, 2019). This demonstrates the need for further study into how such gendered attitudes potentially impact women’s experiences in ICT.

3.2 ICT Demographics

In this section, relevant information about the participation of women in ICT collected from around the world is introduced. Firstly, women and girls’ participation in ICT education is presented followed by women’s participation in ICT employment.

3.2.1 Demographics of ICT Education

Educational statistics provide the most comprehensive information to indicate the interest of women and girls in pursuing ICT as a career. Figure 3.1 illustrates the percentages of women and men studying ICT in Australia, Japan, Korea, New Zealand, the UK, and the USA in 2018. The secondary level includes upper secondary and non-tertiary studies, and the tertiary level includes short-cycle tertiary studies (technical education, vocational, and community college education) and bachelor's level education. The trend shows the low percentages of women studying ICT in these countries. The lowest percentages of female students are shown in the UK with 15% and 14% for secondary and tertiary levels respectively. The highest percentage of female students are in Japan for secondary level education, which is 35% and the highest percentage of female students for tertiary level ICT education is in Korea, which is 25%.

Figure 3.1*Global Trends in ICT Education*

Source: Adapted from OECD, (2018)²

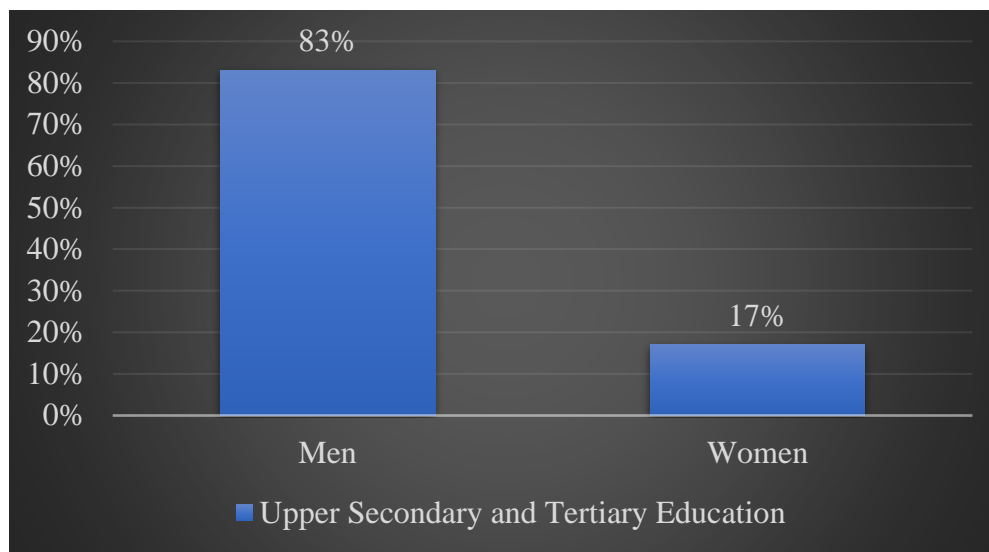
The information from Australia, Japan (missing value for the number of women), Korea, New Zealand, the UK, and the USA show that compared to men, women are less likely to study ICT. The statistics indicate the presence of potential barriers for women to pursue ICT-related education and these are discussed in detail in Section 3.3.

Further evidence for the relatively low participation of girls and women studying ICT is available in Europe from Eurostat. Figure 3.2 depicts the percentages of European women and men studying ICT (including both upper secondary and tertiary) in 2018. Female students only make up 17% of the total students in ICT.

²m – missing value, data cannot exist

Secondary – Upper secondary education and post-secondary non-tertiary education

Tertiary – Short cycle tertiary education and bachelor's or equivalent level education

Figure 3.2*Percentages of Women and Men Studying ICT in Europe*

Source: Adapted from Eurostat, (2018)³

The information from 27 countries in the European region shows a trend similar to other countries presented in Figure 3.1. The small percentage of female students pursuing ICT education in Europe further indicates that the circumstances for women are similar in many parts of the world.

3.2.2 Demographics of ICT Employment

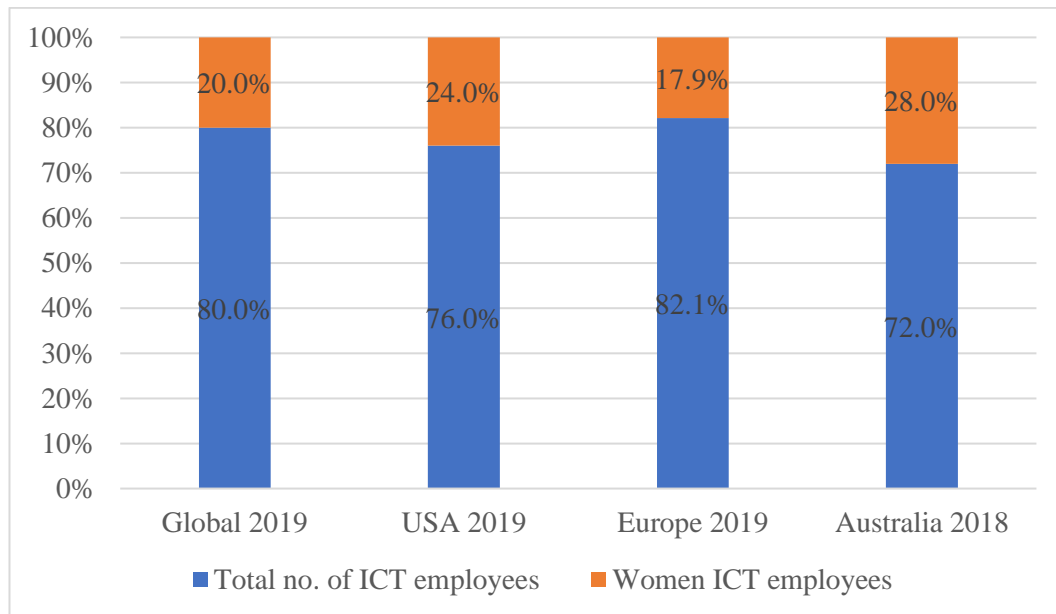
Education is a major indicator of the participation of women in ICT, and statistics about employment paint a similar picture about low participation in the profession. The International Labour Organisation (ILO) provides global information on the number of individuals employed in the ICT profession. According to their 2019 statistics, 80% of the global ICT employees were men and only 20% were women (see Figure 3.3). The information from the USA indicates that in 2019, only 24% of their ICT workforce were women. Statistical data from Europe depicts a similar trend in 2019. Only 17.9% of ICT employees were women in Europe. Furthermore, in 2018,

³ Statistics include information from 27 countries in the European Union

only 28% of Australia's ICT employees were women. Figure 3.3 depicts the global statistics of ICT employees based on gender.

Figure 3.3

Global Statistics of ICT Employment



Source: Adapted from ILO, (2020) (Global and USA), Eurostat, (2020) (Europe)⁴, Deloitte, (2018) (Australia)

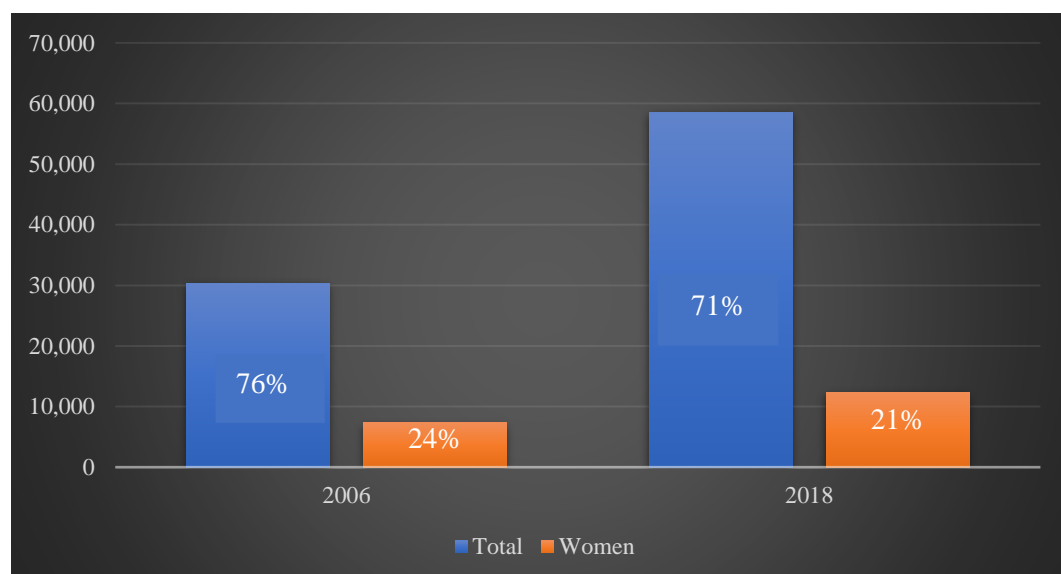
Industry concurs with the statistics available from education and organisations like Deloitte (2018), Eurostat (2018, 2020) and ILO (2020). The participation of women in ICT employment is significantly low compared to men in ICT. Looking at similar Western countries (to New Zealand) around the globe, it is noticeable that education and labour force participation in ICT is significantly lower for women than for men.

⁴ Statistics include information from 27 countries in the European Union

3.2.2.1 The New Zealand Context. Since this study is focusing on the context of New Zealand, it is relevant to discuss some statistics related to ICT employment in New Zealand. According to Statistics New Zealand (2020), fewer women in New Zealand are attracted to the ICT profession. The proportion of women ICT employees in New Zealand has reduced over the years (Statistics New Zealand, 2020). Figure 3.4 shows the total number of ICT employees employed in 2006 (the earliest available data by year) and 2018 (the latest available data by year), the number of women ICT employees employed in 2006 and 2018 and the percentage of women ICT employees out of the total ICT workforce. Figure 3.4 enables a comparison between the total number of ICT employees and the number of women ICT employees. Only about 21% of ICT employees in New Zealand are women (Statistics New Zealand, 2018, 2020) and the statistics indicate that women are largely under-represented in the ICT profession in New Zealand.

Figure 3.4

Number of ICT Employees in New Zealand



Source: Adapted from Statistics New Zealand, (2020)

Although the number of women participating in ICT has grown from 7,338 in 2006 to 12,399 in 2018 (Statistics New Zealand, 2020), the percentage of women ICT professions relative to men has actually declined by 3% in the same period (The total number of ICT employees had grown from 30,390 in 2006 to 58,596 in 2018). This worrying trend raises questions about women's experiences in the ICT profession in New Zealand and thus, this study aims to explore their inclusion experiences in ICT.

In summary, the statistical trends emphasise the low number of women in ICT. It is similar for ICT education and employment in many parts of the world (Deloitte, 2018; Eurostat, 2018, 2020; International Labour Organisation, 2020; OECD, 2018). In New Zealand, the proportion of women ICT employees has reduced over the years (from 2006 to 2018). The next section discusses the low participation of women and the impact of the gendered nature of the ICT profession on women in the field of ICT.

3.3 ICT Education

This section briefly discusses the low participation of women in ICT education. This is relevant because it demonstrates that women are under-represented at all levels of ICT and indicates the interest women have in exploring ICT as a career option. Women having lower levels of interest in ICT education is directly related to my interest in inclusion in this thesis and justifies its significance.

Scott et al. (2018) in their report about women in ICT, introduce a framework based on research and experiences of technology professionals in the USA. The framework is called 'The leaky tech pipeline' and illustrates four stages that contribute to the low participation of women in ICT. The first two stages that impact women in ICT is education (i.e., primary/secondary school and higher education), the third stage of the pipeline is employment, and the fourth stage is ICT entrepreneurship. Scott et

al. claim that there are many barriers, which impact women's access to education and consequently impact their engagement and motivation. These barriers include inequality of access to computing courses, access to education, environmental cues (i.e., the unwelcoming classroom environment, which excludes women), funding, inability to access internships and workforce pathways, lack of access to home internet and technology, lack of qualified teachers, lack of role models and mentors, stereotyping threats, and unwelcoming climate (different treatment from teachers). The barriers at the education level may disadvantage women as candidates (Scott et al., 2018). Women lack the opportunity to develop their early computing skills and knowledge. Such barriers ultimately result in women being less likely to pursue ICT education.

The question that arises here is: Why do women face obstacles in ICT? Ahuja (2002) proposed a model to highlight the challenges that women face in ICT (later in this chapter, some themes in Ahuja's model are discussed in detail). Ahuja's discussion focuses on the challenges that women face at the employment stage, and they are directly relevant also to barriers in education and can be seen in Scott et al.'s (2018) work on the leaky pipeline. Scott et al. echo Ahuja's work in that challenges, such as inequality in access to education, stereotyping, and unwelcoming climate, occur due to social expectations. Ahuja claims that social expectations are society's beliefs about women's and men's behaviours. She continues to explain that the culture of a society has its values, which form an individual's values and self-expectations. Society expects women and men to behave in certain ways according to their cultural values. From a young age, women and men, and girls and boys are given different signals. For instance, boys are encouraged to use technology, which includes computers. Boys are provided with the confidence that they are capable of handling

technology. At home, they are more likely to be encouraged into technology-related tasks by parents, and later provided with education to develop their skills and knowledge in technology. These practices build the boys' level of confidence to use and engage with technology (Ahuja, 2002; Serenko & Turel, 2021). In contrast, girls are likely to be encouraged to take on soft subjects, such as arts, and literature. As an outcome of these social expectations, girls may lose confidence in technology-related tasks. Generally, in their formative years, girls/women are less likely to be encouraged into ICT education.

It is interesting to note that while many studies conducted in the West emphasise women's negative experiences in the ICT field, while outside the West, there is research that is more positive about women's participation in ICT. For instance, in Malaysia women reported positive ICT experiences. Lagesen (2008) interviewed 21 ICT students and reported that women in Malaysia prefer to work in ICT and women consider themselves to be equal with men in ICT. About 50% of ICT students are women and they do not feel excluded in the ICT education environment (Lagesen, 2008). The findings identified two reasons for women to join ICT in Malaysia. The first reason is that ICT-related jobs are well-paid. The second reason is that ICT jobs provide job security. The participants did not see a connection between gender and ICT in Malaysia in the same way reported in the studies from the Global North, Australia, and New Zealand. Lagesen states that Malaysian women who study ICT challenge the theories found in Western research. Notably, in comparison to the West, the number of women ICT employees in Southeast Asia is high and Thailand reports the highest percentage, which is 42% (Poh, 2020). While Lagesen's study reveals that women ICT students in Malaysia are content to join ICT jobs, it is

noticeable that women are still limited to software and programming roles and men are considered better in technical roles.

3.4 ICT Employment and Gender

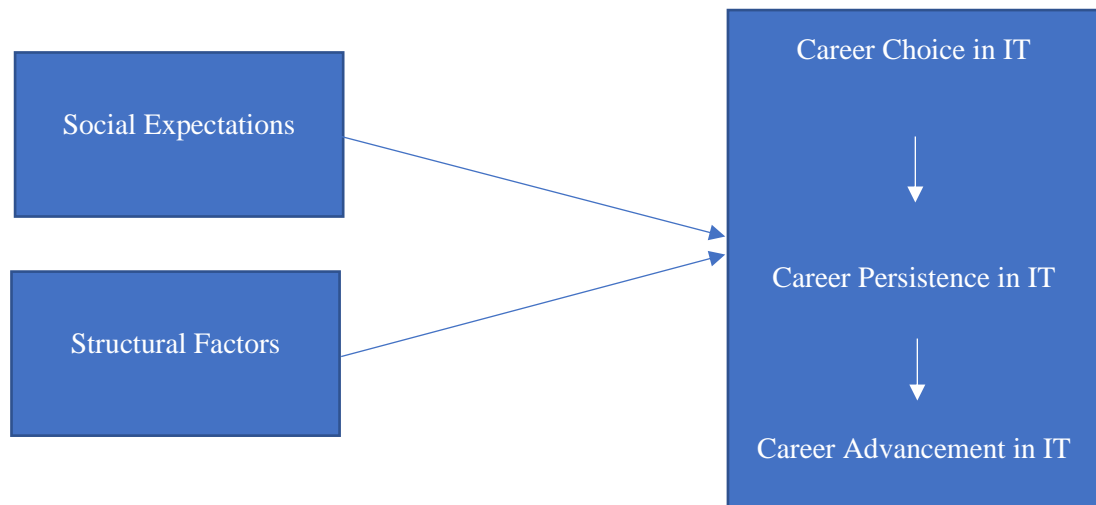
This section discusses the common barriers that women encounter in the workplace. Scott et al.'s (2018) framework is useful to structure an understanding of barriers that women face in the workplace. The first two stages presented the barriers at the education level and the third one indicates workplace barriers for women in ICT. These barriers include bias in advancement, bias in recruitment (conscious and unconscious bias when recruiting candidates for ICT roles, which unfairly impact on women candidates' recruitment), discrimination, organisational culture, and stereotyping, and external barriers, such as pay inequality, and work-life balance. As per Scott et al.'s framework, these negative factors result in the under-representation of women in the field of ICT. Fewer women enter, participate, and advance in the technology field, which means that talented women are less likely to be involved in this field. So far, Scott et al.'s framework has been used to provide a scaffolding to understand barriers women face in both education and employment in ICT. The next section includes and reviews other relevant studies that explore barriers for women.

3.4.1 Women's Career Choice

This section focuses on the practices that discriminate and discourage women from taking up careers in the technology field. It is important to acknowledge that, women do work in ICT and have rewarding careers, but report challenges in ICT. As part of a larger study, Crump et al. (2007) have examined the reasons why women enter the field of ICT in New Zealand. Crump et al. identify three main reasons for women in New Zealand to become ICT employees. They conducted focus group interviews with 70 women ICT employees in four different regions in New Zealand –

Auckland, Christchurch, Dunedin, and Wellington. According to Crump et al. and Serenko and Turel (2021), some willingly choose ICT as a profession as they develop a desire for ICT-related jobs. This often happens when they develop a passion for computers at a young age. Next, some naturally get transferred into this field by working in lower-level jobs. For instance, they start the journey as a secretary/helpdesk support and gradually get promoted when an ICT-related opportunity arises. Finally, the other way women moved into ICT was through what Crump et al. call 'serendipity'. They study a different field but end up in ICT-related employment as a result of an organisational policy. For instance, an organisation that does not allow graduates to work in their field of studies (Crump et al., 2007). These women undergo re-training, re-conversion, or re-orientation. It is noticeable that most women tend to take indirect paths to become an ICT employee while men have a strong and direct path led by their initial training (Bosch et al., 2021; Serenko & Turel, 2021; Valenduc, 2011).

There are many reasons why women may avoid choosing ICT as a career. A career is defined as a sequence of work-related experiences, which includes objective and subjective aspects (Hall, 2002). Ahuja (2002) suggests the lack of role models, and work-family conflict, as factors that influence women's career choice. Ahuja presents three stages of a woman's career (see Figure 3.5), which are career choice, persistence, and advancement. The figure depicts the impact of social and structural factors on all three stages. Ahuja categorises social expectations and work-family conflict under social factors, and occupational culture, lack of role models, informal networks, lack of mentors, and institutional structures under structural factors.

Figure 3.5*Social and Structural Determinants of Women's Careers in IT*

Source: Ahuja, (2002), p. 22

A factor that negatively contributes to women's career choice is the lack of role models. According to Ahuja (2002), when women explore career options before deciding on a suitable pathway, they tend to look for role models who have had successful careers in different fields. Compared to men, there are fewer successful women role models in ICT, particularly at higher positions. Therefore, young women tend to avoid ICT-related studies and careers as they notice fewer women role models (Ahuja, 2002; Serenko & Turel, 2021; Simard et al., 2008). Young men are conscious about their gender consistency with the masculine image of ICT, while young women are uncertain about their career choice in ICT (Serenko & Turel, 2021). As reported by Ahuja, the lack of women role models not only impacts women's career choice, but also their persistence in ICT. However, Armstrong et al. (2018) disagree with Ahuja, as Armstrong et al.'s empirical findings show that the lack of women role models does not necessarily impact persistence in ICT. Instead, Armstrong et al. (2018) found factors, such as organisational culture and social expectations impacting

career persistence of women ICT employees. Since Armstrong et al. only extended a portion of Ahuja's model in their study, they focused on career persistence and advancement of women in ICT, but not on career choice.

Women's career choice also depends on social factors, such as family commitments. Ahuja (2002) suggests that work-family conflict often impacts women's career choice. Accordingly, a conflict arises when work demands, and family demands overlap. On the work front, the ICT profession requires long working hours, travelling, and constant updating of skills and knowledge. On the home front, women tend to take more family responsibilities, such as childcare, cleaning, and cooking. Often, women have difficulties managing work and home responsibilities and thus, women may tend to choose careers that are more flexible than ICT. While flexibility is provided for both men and women ICT employees to manage work and family, practices like working from home may clash with family commitments (Holth et al., 2017; Kirton & Robertson, 2018). Kirton and Robertson's (2018) study illustrates that men in senior positions do not attempt to support women with family commitments. For instance, when working from home, most working mothers find it difficult to focus on work while attending to kids. Simard et al. (2008) also discuss the work-family conflict, but less with regard to women's career choice.

3.4.2 Women's Career Advancement

Work-family conflict impacts more than simply women's career choice, i.e., work-life conflict impacts career advancement as well. Simard et al. (2008) conducted a study using seven high-tech companies and found obstacles and solutions for women in ICT. As per their report, one of the obstacles to women's career advancement is family commitments. Kirton and Robertson's (2018) study which interviewed both men and women in an IT multinational in the UK, also highlights that household

chores are socially still viewed as primarily women's responsibility. Generally, most women raise families while building a career, and for many, achieving both simultaneously is less possible because certain work-related demands cannot be met due to family commitments and vice versa. The findings related to women's work-life balance issue show that in order to achieve their career goals, some women go to the extent of delaying motherhood, as childbearing can act as a barrier in women's careers (Simard et al., 2008). On the other hand, others give up their career aspirations by ending their careers to take on family responsibilities. Women ICT employees who shift to part-time work due to family commitments find their careers declining, since part-time work is not well-accepted by many organisations (Kirton & Robertson, 2018). Therefore, women either delay or cancel their family commitments, or leave their careers to prioritise their families. Many women who hold senior positions in ICT may sacrifice their personal aspirations, such as starting a family, to maintain their career path (Crump et al., 2007; Demaiter & Adams, 2009). Similar results are shown in Bosch et al.'s study (2021) which conducted a survey in Spain and collected data from 325 women in ICT. Their results illustrate that being a woman, having a family and work-life balance issues negatively impact women's career development. The significant point that scholars, such as Bosch et al., Kirton and Robertson and Simard et al. make through these findings is that most women are often forced to choose between career and family.

Despite attempts by organisations and governments in many countries (e.g., Scandinavian countries), to divide family responsibilities among women and men, women may still find themselves disadvantaged. For example, in Sweden, men are also granted generous parental leave to improve gender equality. Holth et al. (2017) conducted a study in Sweden using a global ICT consultancy organisation as the case.

As per the findings, despite revised policies over parental leave, conditions for women have not improved (Holth et al., 2017). Although family responsibilities impact both men and women, and men leave their careers to take on family responsibilities, women are more likely to do so than men. Often, men are able to manage work and family because of their “understanding wives” (Kirton & Robertson, 2018, p. 163). The findings of Holth et al.’s study indicate that compared to women, more men are likely to continue their careers as consultants in ICT. For many women, prioritising their career is less of an option. The findings indicate that women’s career prospects are lower than men’s and family commitments have a considerable impact on women’s career. Work-family conflict is one of the biggest barriers for women’s career progression (Annabi & Lebovitz, 2018; Sekoaila & Adebessin, 2016; Wing-Fai, 2019).

In addition to family and/or personal commitments, gendered practices at workplaces also impact women’s careers progress. Therefore, women’s career advancement is slower than men’s. Alegria (2019) conducted interviews with 32 women ICT employees in the USA. She uses several metaphors to explain women’s advancement, or lack of it. The first metaphor Alegria uses is the ‘glass escalator’, and according to Alegria, the term refers to the process of promoting men in a women-dominated profession, such as teaching. The next metaphor Alegria uses is called a ‘glass step stool’. This is explained as a step-by-step process, which “provides only a small lift” (Alegria, 2019, p. 724) to an individual’s career. The findings of Alegria’s study show that women’s ICT career progress cannot be explained using the process of glass escalator, instead, the glass step stool process provides a better explanation because women’s careers show slow progress. Accordingly, women’s career tends to advance slightly in the technology field. Women can reach the middle management

level in organisations yet; they are rarely promoted to top management because the obstacles that block them from reaching the top are not reduced.

Alegria (2019) also provides the lens of intersectionality to the problem of women's limited career progression. Intersectionality can be understood as the interaction of aspects, such as class, gender, and race to create compounding inequalities (Acker, 2012; Crenshaw, 1989). Hence, more than one factor impacts career progression. In this instance, gender is not the only limiting factor for women's career progression. Both white women and women of colour have participated in Alegria's study. The results indicate that the careers of white women advance step by step into middle management, but it is not the same for women of colour. Their career progression is slower than white women due to a combination of both racial and gender discrimination. Thus, gender and race may intersect to create obstacles for women in ICT. While Alegria notes the two factors of gender and race, it is worth noting that other aspects, such as age and culture, also intersect with gender to create barriers for women.

On women ICT employees' career progression, McGee (2018) and Valenduc (2011) explain the stagnant careers of women in terms of women hitting the glass ceiling. The glass ceiling refers to "invisible" (Valenduc, 2011, p. 483) and "artificial" (McGee, 2018, p. 11) obstacles to women's career progression. Valenduc states that beyond a certain level, such as middle management women are not moved up the organisational hierarchy. For instance, many women can lead at the project management level, but they are not promoted beyond this level into top management. While there are visible higher levels in the organisational hierarchy, most women cannot reach them due to invisible obstacles. The statement by Valenduc regarding

women being stagnant at the middle management level is similar to the findings in Alegria's (2019) study.

In her model, Ahuja (2002) proposes that women's career advancement depends on shared informal networks, the availability of mentors for women, and the type of organisational structures. While men in similar fields are connected to each other, women lack these informal networks. Ahuja and Kirton and Robertson (2018) describe that being involved in informal networks is a strategy that helps individuals find better advancement opportunities. Yet, men are the majority in most informal ICT networks and women are likely to be excluded from these networks. According to Ahuja, the 'old boys' club' in the ICT field is all about camaraderie. Men are more likely to interact over discussions about topics such as cars and sports, which are traditionally masculine, and women are often left out of such interactions. The point about women's career advancement being adversely impacted by the lack of informal networks is supported by Armstrong et al. (2018) and McGee (2018). In these two studies, women identify men's networking practices, such as after-work gatherings over alcoholic drinks and activities like golf, can exclude their full participation in networking and its benefits.

The lack of mentors for women is another factor that limits women's career advancement in ICT. Lack of mentors refers to the relative absence of guidance and support for women within ICT. Mentoring is defined as, "a process for the informal transmission of knowledge, social capital, and psychosocial support perceived by the recipient as relevant to work, career, or professional development" (Bozeman & Feeney, 2007, p. 722). Sharing one's experience with a less-experienced individual can be beneficial to the less-experienced one to develop her/himself. While men can be valuable mentors for women protégés (McGee, 2018), Ahuja (2002) argues that the

absence of women ICT employees in senior roles may be a reason for ICT women at lower levels to receive less mentoring support in organisations. She explains that it is common for protégés to feel comfortable with mentors of the same sex. McGee (2018) and Wynn (2020) also suggest that mentorship programmes for women are important to develop women's skills (e.g., presentation skills) in STEM fields. Thus, some women in lower levels may prefer to be mentored by women mentors and the lack of women mentors may hinder their career progress.

The other factor suggested by Ahuja (2002) is institutional structures, which might impact women's career advancement. She discusses globalisation and the flattening of organisational structures under institutional structural factors that hinder women's career progression. Globalisation connects the world and thus, organisations expand and/or operate globally by shifting some senior roles to other countries. Recognising that women are less willing to shift overseas, women are more likely to lose out on overseas and/or advancement opportunities (Ahuja, 2002). Some organisations do not consider women for overseas opportunities due to their inability to take up certain overseas assignments. Furthermore, Ahuja identifies the flattening of organisational structures as another factor, which impacts women's career progression. Considering many organisations are flattening their structures by removing middle layers, it is plausible for women's careers in ICT to get more stagnant (Ahuja, 2002; Armstrong et al., 2018). Advancement opportunities offered to women are low in numbers and the limited number of senior positions may further hinder women's progress.

Although the majority of studies on women in ICT, discuss obstacles faced by women, Demaiter and Adams (2009) highlighted the positive side of women's careers in ICT in Canada. As reported by Demaiter and Adams, challenges for women exist

in the technology field, but it is possible to overcome them and obtain career advancement opportunities. In the study, most women denied the existence of structural issues, preferring to see the problem as resting with some individuals (men). Findings suggest that if women ignore negative practices and processes in their places of work, they can advance their careers in ICT. The study highlights the fact that if women remain in the field by handling, or ignoring negativity, opportunities arise for them. It is however notable that the participants selected for Demaiter and Adams' study were *already* successful women and not an accurate representation of women in ICT. It would therefore be misleading to generalise that the experiences of successful women is likely to be the same as women in lower-level ICT jobs. The findings indicate that women who have overcome gender inequality may be less inclined to emphasise the impact of gender in ICT. Demaiter and Adams note that this attitude of successful women in ICT reflected in their results may limit opportunities for new entrants. If successful women do not challenge and change negative cultures for women, and instead accept them, hostile cultures remain the same for other women joining ICT and hence women's participation and/or advancement in ICT is not assisted.

3.4.3 ICT Culture

The definition of culture includes aspects, such as norms and practices (DeLong & Fahey, 2000; Hofstede, 1980). In this study, ICT culture refers to norms and practices in the profession. This section discusses aspects, such as long working hours and travelling, after-work meetings, childbearing in women, interactions within work groups and how women and technical expertise are perceived in ICT.

3.4.3.1 Long Hours and Travelling. ICT culture also creates difficulties for women in the field with research reporting women tend to feel negative about the ICT

profession due to its work culture. ICT cultures typically demand long working hours, and sometimes extensive travelling (e.g., to visit clients) (Ahuja, 2002; Bosch et al., 2021; Simard et al., 2008; Timms et al., 2008). Timms et al. (2008) conducted an online survey with 178 women ICT employees in Australia and some of their findings report women who are disappointed about ‘on-call’ working. On-call working requires employees to be available at any time for work purposes including weekends and employees are expected to put in extra hours to finish projects. Stressful work demands can even cause health issues for women. Due to the long-hour culture, women may find it difficult to fit in as both long working hours and extensive travelling can impact women’s family responsibilities. Such practices discourage women’s career persistence (Armstrong et al., 2018). Family responsibility is a recurrent factor that impacts women ICT employees’ perceptions of ICT culture. As discussed above (see Section 3.4.2) lack of flexibility conflicts with women’s family commitments as they struggle to find the right balance.

3.4.3.2 After-work Meetings. Another key area for concern is women’s exclusion from after-work meetings as this is where much networking is conducted and opinions are shared with work group members. After-work gatherings in the ICT profession may exclude women from contributing to decision making, which is an essential part of their job (Bosch et al., 2021; Timms et al., 2008). Some official discussions take place in public places outside of their workplaces. Timms et al. further elaborate that women find it difficult to share their views in order to contribute to innovation and creative aspects. Women may often find it difficult to influence organisational decisions (Bosch et al., 2021). This practice is common in the ICT profession as many ICT-related work groups have get-togethers on Friday evenings. Some women do participate in these gatherings while others avoid them to make time

for their families (Armstrong et al., 2018; Hardey, 2019). Those who avoid gatherings are at risk of missing work-related information and the opportunity to provide their input.

3.4.3.3 Childbearing. Gender shapes women's experiences in IT to such an extent that they reconsider or delay childbearing. The reason is that women find it difficult to re-enter the workforce after childbirth (Crump et al., 2007; Kirton & Robertson, 2018). Difficulty to re-enter the workforce may affect women engaged in the ICT profession more as they lose their ability to keep up with the developments in the technology field. Although some succeed in re-entering after childbirth, they do not obtain jobs at the same level they left rather they re-join at junior levels (Crump et al., 2007; Kirton & Robertson, 2018). Therefore, women's career rankings may drop drastically after childbirth. Some women opt for part-time work while others settle for lower-level jobs. It is noticeable that most women lack support from organisational leaders and peers at the time of re-entering work. Women have to make an effort to re-connect with their colleagues and learn from them as workplaces do not provide training opportunities to regain knowledge.

3.4.3.4 Interactions. Work context includes interactions with social environments and one way of practising gender in work groups is through interactions. Not many studies have solely focused on interactions within work groups. This section discusses some findings of studies with regard to work group interactions since individuals interact with each other in a work group. Recognising that women drop out from coding and software developing roles, a study was conducted by Tassabehji et al. (2020) using women and men from France and the UK. The findings are derived from the experiences of 24 participants working in the technology field. The article is based on the view that gender is constructed within interactions and shows the

importance of understanding work group interactions. With regard to interactions, the findings of Tassabehji et al.'s study show that women need human-to-human interactions at work and that women are good communicators. On the contrary, the men who were interviewed are of the view that women interact well with individuals, but not with machines, such as computers.

The masculine work culture in the ICT profession is highlighted repeatedly. As discussed earlier in this chapter, the men in work groups often have their interactions in the form of discussions about sports, and other masculine subjects, which may exclude women (Demaier & Adams, 2009) and some women attempt to include themselves in these discussions without behaving like a “fluffy bunny” or a “delicate flower” (Kirton & Robertson, 2018, p. 165). The discussion on work group interactions is significant to the current study since Main and Schimpf (2017) suggest that interactions impact women's sense of belonging.

3.4.3.5 Women and Technical Expertise. Generally, the technology field is known for its gendered nature. While the technology itself does not produce gender, it is understood in relation to existing gendered attitudes and beliefs. As such, ICT is mostly interpreted as, *less feminine* and *more masculine* (Hardey, 2019; Trauth, 2013). Some women are prepared to accept management roles, which do not require technical skills, as they “felt more confident with the less technical work and enjoyed that the move allowed them to get away from the gendered hostility” (Alegria, 2019, p. 730). White women and women of colour participated in Alegria's (2019) study and notably white women who were promoted to middle management were removed from technical roles into roles that required interpersonal skills. Hence, women who possess strong interpersonal skills are promoted instead of those who possess strong technical skills. Since they are comfortable with the managerial work and prefer to move away

from the gendered work context women prefer to develop their interpersonal skills to move up the ladder.

Similar findings are highlighted in the study by Kenny and Donnelly (2020) and McGee (2018) as they stress that ICT women's communication, organisational and people management skills are more likely to be appreciated by organisations. Women participants in Kenny and Donnelly's study were expected to perform less technical roles in ICT, less technical roles include communicating, managing, organising, and planning. These are called 'soft roles' and women are encouraged into these roles, taking them away from technical jobs. Mostly, men occupy technical jobs, which earn more respect and money while women are moved to administrative jobs (Kenny & Donnelly, 2020). Kenny and Donnelly add that, for some men, either technically skilled women did not exist or women who possess technical skills were seen as, 'rare' and 'special'. Hence, women might struggle to be recognised for their technical skills in the field of ICT.

Furthermore, femininity and technical expertise may be considered, "virtually incompatible" (Kenny & Donnelly, 2020, p. 343). Kenny and Donnelly's study highlights that women's gender identity shapes their experiences in the ICT profession as women's technical abilities are constantly doubted. Initially, women may attempt to conform themselves according to the demands of the ICT field in order to connect with their colleagues. Despite their efforts, women realise that even those who do not perform in a feminine manner get rejected by the ICT profession, thus constituting a double bind. There were pre-defined norms and rules that women were expected to follow. For instance, if a woman was assertive, she was blamed for not 'acting like a girl' (Kenny & Donnelly, 2020; McGee, 2018).

Nevertheless, in the technology field, both men and women can be stereotyped. Women are segregated in 'soft' roles and the number of women is low in 'hard' roles (Wing-Fai, 2019). Such categorising occurs due to stereotyping. Wing-Fai (2019) explains that in ICT women are assigned roles, which require them to handle the end-users since they are perceived to be better with communication and emotional skills. Similarly, men are also stereotyped as, 'nerdy' or 'geeky' (McGee, 2018). Men are expected to conform to the nerdy culture in ICT and these characteristics (nerdy or geeky) help them to progress in the ICT field. While men are more likely to be stereotyped as 'technically skilled', women are likely to be stereotyped as, 'family-focused', 'unwilling to travel' and 'soft-skilled' and also, likely to be judged differently from men (Simard et al., 2008). It is noticeable that both men and women experience the gendered culture in ICT, however, the experience can be more beneficial to men than women because, as Wing-Fai notes the nerdy/geeky nature of men helps them to progress in the ICT profession. For instance, the gendered nature may help more men to obtain technical roles.

The points discussed in the above section (see Section 3.4) highlight the various challenges that women ICT employees face in work contexts. Similar issues were identified by Annabi and Lebovitz (2018) in their study of women in ICT conducted in the USA (see Table 3.1). Annabi and Lebovitz tested the model they designed using nine organisations as case studies. The findings show that women face barriers, such as discrimination, isolation and exclusion (lack of women role models, lack of mentors, lack of network, male dominance), and work-life conflict (inability to balance work and home, nature of IT, fear of perceptions). The additional barrier discussed in Annabi and Lebovitz's study is the poor supervisory relationship. The significant point highlighted is that women find some women supervisors not being

supportive. Women supervisors who manage work and home responsibilities well may expect their subordinates to do the same thus, failing to understand the difficulties that their women subordinates face. The findings indicate that regardless of supervisors' gender, training should be provided to supervisors to improve women's experiences in the ICT profession.

The framework designed by Annabi and Lebovitz (2018) also shows that women may be able to overcome the barriers through different coping methods. These coping methods are building the right relationships, confronting the problematic person, delivering consistent and/or high performance, finding individual-level changes, finding mentors, ignoring barriers, making themselves heard/visible, and leaving the organisations. Annabi and Lebovitz's study indicated the importance of organisational interventions in improving the ICT work experiences for women. Organisations need to assist women in building a network, build a culture of support, build a strong support system for diversity and inclusion for women ICT employees, empower, be fair in retention and advancement outcomes, and be flexible concerning work arrangements. The framework identified how a sound work environment could be built for women in ICT. Similarly, Hardey's (2019) study also identifies the need to empower women in ICT without excluding them. The study shows the men's and women's place in the field of technology and reports that women may not be considered as an equal part of the ICT culture. Women are less likely to be offered equal opportunities, as the field still promotes masculinity. Hardey further states that the field lacks diversity and that changes to work patterns, such as flexible work arrangements can attract more women into ICT. While admitting that changing the culture of a male-dominated field is difficult, Hardey also states that there is potential for change.

In summary, it is noticeable that women are under-represented at all levels of ICT, i.e., education and employment. The technology field is gendered, and this gendered culture creates challenges for women ICT employees. The rationale behind this discussion is that many of the above-discussed factors emerged during the exploration of ICT women's experiences of work group inclusion. Factors, that impact women's career growth, such as lack of mentors/role models, organisational policies and inflexibility, organisational structure, and work-life balance issues negatively influence inclusion (see Chapter Eight). Factors, such as work demands and practices, and gendered work context create the ICT culture, which influences inclusion negatively (see Chapter Eight).

3.5 Key Studies and Themes in Literature

Table 3.1 presents key studies related to women in ICT. These studies were found to be relevant to the findings of the current study, were discussed in this chapter, and were useful in structuring the current chapter. The studies were found from databases, such as Google Scholar, Web of Science and Emerald using keywords, such as "Women in ICT", "Gender and ICT", and "Gender and Technology". From Table 3.1, it is noticeable that while several studies related to gender and ICT were evaluated, not many of them take a novel approach to address diversity and inclusion of women in-depth, which is fulfilled by the current study.

Table 3.1*Key Studies and Themes in Literature*

	Title	Author(s)	Year	Method	Themes
1.	A cyberfeminist utopia?: Perceptions of gender and computer science among Malaysian women computer science students and faculty.	Lagesen, V. A.	2008	Qualitative - interviews	<ul style="list-style-type: none"> • In Malaysia, ICT is a favourable profession for women • 50% of ICT students are females • Western research shows that women are excluded from ICT • Malay women see ICT as an equal profession • The situation in families make women work in a well-paid profession like ICT • Software and programming are women's work • Men are still better at technical work
2.	Beyond Marie Curie: Grace Hopper and the ENIAC six.	Candler, R	2020	An informative article	<ul style="list-style-type: none"> • Women performed computations faster than men • Grace Hopper was a coder • ENIAC had 6 women working at it • Grace Hopper teamed up with some ENIAC women to create general-purpose computers
3.	Climbing the technical ladder: Obstacles and solutions for mid-level women in technology.	Simard, C., Henderson, A. D., Gilmartin, S. K., Schiebinger, L., & Whitney, T.	2008	Mixed method – survey and interviews	<ul style="list-style-type: none"> • Work-life balance • Work-life impacts women's advancement • Stereotyping • Women find the environment more competitive

					<ul style="list-style-type: none"> • Men and women value teamwork • It's important to create technical leadership posts • Women are excluded from networks • Women find it difficult to re-enter after childbirth • Women are needed in boards
4.	Does gender still matter? A study of the views of women in the ICT industry in New Zealand.	Crump, B. J., Logan, K. A., & McIlroy, A.	2007	Quantitative/ Qualitative - interviews	<ul style="list-style-type: none"> • Reasons for choosing ICT as a career • Gendered practices and culture • Men in technical jobs and women in soft jobs • Lack of women • Stereotyping • Difficulty to re-enter after childbirth • Men are aggressive when negotiating pay • Delaying motherhood\culture of individuality • Women are dissatisfied over wages
5.	Escalator or step stool? Gendered labor and token processes in tech work.	Alegria, S.	2019	Qualitative - interviews	<ul style="list-style-type: none"> • Glass step stool • Women face barriers to career advancement • ICT is gendered • Race and class intersect with gender to impact women's career advancement • Some women take up on less technical roles to progress in career • Moving into higher positions make women do less technical jobs • Women of colour face more barriers than white women

					<ul style="list-style-type: none"> • Women lose jobs more than men during a restructuring
6.	From female computers to male computers: Or why there are so few women writing algorithms and developing software.	Tassabehji, R., Harding, N., Lee, H., & Dominguez-Pery, C.	2020	Qualitative - interviews	<ul style="list-style-type: none"> • Women developers are low in numbers • Women are under-represented • Gender is constructed in interactions • Women need to communicate at work • Women contribute and influence software writing • Most research focuses on women • Not many women ICT employees in senior positions • Women worked with computers during the 2nd world war • Women don't stay long in Software Development
7.	Gender, availability and dual emancipation in the Swedish ICT sector.	Holth, L., Bergman, A., & MacKenzie, R.	2017	Qualitative – case study	<ul style="list-style-type: none"> • Work-life balance is a problem for women • Jobs are mostly designed to suit men • Women are forced to sacrifice their career inspirations • Primarily women are responsible for housework • Gendered division of work • Workplace practices hinder women's career advancement • Long working hours and travelling in ICT affect women • Scandinavian countries attempt to impose policies that favour women

					<ul style="list-style-type: none"> • Only 20% of the ICT workforce are women • Women are excluded from technical roles
8.	Gender and technology culture: Points of contact in tech cities.	Hardey, M.	2019	Qualitative – focus group (Initial part was quantitative - survey)	<ul style="list-style-type: none"> • Gendered interactions • Lack of career advancement opportunities for women • Research fails to capture gendered experiences • Work culture and career trajectories favour men • Women deserve equal opportunities • Gender discrimination
9.	Gendered organisations and intersectionality: Problems and possibilities.	Acker. J.	2012	Reflexive approach	<ul style="list-style-type: none"> • Gendered organisational climate • Gendered logic • Gendered processes, culture, identities and interactions on the job • Intersectionality (The mixed effect of gender, race, and class)
10.	Girls in tech: Progress and barriers in a gendered culture. In Digital entrepreneurship, gender and intersectionality: An East Asian perspective.	Wing-Fai, L.	2019	Book – Qualitative - interviews	<ul style="list-style-type: none"> • Gendered work culture • Lack of women in ICT • Women are offered soft roles • Men are offered technical roles • Women entrepreneurs are discriminated • Women are excluded from networks • Work-life balance problem • Women are expected to give up their careers after marriage • Work-life balance problem for women

11.	Human computers: The first pioneers of the information age.	Grier, D. A.	2001	An informative article	<ul style="list-style-type: none"> • Women mathematicians during the 2nd world war • Humans were computers • Charles Babbage designed a computer-like machine to do calculations • There were women computers • Women were educated and worked during the war
12.	"I really didn't have any problems with the male-female thing until...": Successful women's experiences in IT organisations.	Demaiter, E. I., & Adams, T. L.	2009	Qualitative - interviews	<ul style="list-style-type: none"> • For some women, gendered nature doesn't exist • Women can excel in ICT if they ignore negativity • Child bearing is a problem • Gendered behaviours exclude women • Gender shapes interactions with colleagues and experience
13.	Improving the retention of women in the IT workforce: An investigation of gender diversity interventions in the USA.	Annabi, H., & Lebovitz, S	2018	Qualitative – case study	<ul style="list-style-type: none"> • The number of women ICT workers is reducing • Women ICT leave their jobs within the first 5 years • Organisations use diversity and inclusion programmes to increase the number of women • Work-life balance problem for women • ICT is gendered • Misjudging women's technical abilities • Gendered work climate • Long hours and travelling demands

					<ul style="list-style-type: none"> • Stereotyping • Women's opinions undervalued and not heard • Gender discrimination • Lack of role models for women • Isolations and exclusion • Poor supervisory relationship • Women also create problems for women • Coping methods
14.	Not a job for life? Women's progression, conversion and dropout in ICT profession.	Valenduc, G.	2011	Review	<ul style="list-style-type: none"> • ICT is gendered • Inequality in education and training • Glass ceiling exists • Unfavourable work environment for women • Career patterns only suitable for men • Work culture favourable for men • The situation for women in ICT has not improved • Stereotyping: technology for men, communication for women • Work-life balance • Women dropout from ICT
15.	Navigating the gender structure in information technology: How does this affect the experiences and behaviours of women?	Kenny, E. J., & Donnelly, R.	2020	Qualitative - interviews	<ul style="list-style-type: none"> • In UK, only 16.2% of women hold ICT-related jobs • Research has focused on women's under-representation in ICT and not on how gender shapes their experiences • Women's experience in ICT is negative • Gendered climate

					<ul style="list-style-type: none"> • Gendered nature impacts the experiences of men and women in different ways • Women's technical abilities were not appreciated
16.	Sustaining and advancing IT careers: Women's experiences in a UK-based IT company.	Kirton, G., & Robertson, M.	2018	Qualitative - interviews	<ul style="list-style-type: none"> • Under-representation of women in ICT • Lack of support for career development • Masculine ICT culture • Lack of informal networks for women • Informal interactions • Lack of flexibility in organisations
17.	The advancement and persistence of women in the information technology profession: An extension of Ahuja's gendered theory of IT career stages.	Armstrong, D. J., Riemenschneider, C. K., & Giddens, L. G.	2018	Qualitative - interviews	<ul style="list-style-type: none"> • Social expectations impact women's career persistence and advancement • Work-family conflict impacts advancement • Occupational culture impacts career persistence • Lack of informal networks impact career advancement • Institutional structures impact career advancement • Women leave the ICT profession • Women are excluded • Women are under-represented in ICT • ICT is gendered • Lack of respect for women
18.	The influence of gender, and race/ethnicity on advancement in Information Technology (IT	McGee, K.	2018	Qualitative - interviews	<ul style="list-style-type: none"> • Gender bias • Importance of networks for women • Nationality bias • Lack of support from organisational leaders

					<ul style="list-style-type: none"> • Education bias • Importance of mentors and sponsors • Technical skills earned respect for women
19.	The leaky tech pipeline.	Scott, A., Klein, F. K, McAlear, F, Martin, A., Koshy, S.	2018	A report	<ul style="list-style-type: none"> • Women face barriers at four different stages of life • At the secondary education, tertiary education level, employment level, and entrepreneurship level
20.	The secret history of women in coding.	Thompson, C.	2019	Newspaper article	<ul style="list-style-type: none"> • Mary Wilkes started her career as a computer programmer • Back then women were coders • Wilkes was assigned to write the software for LINC (one of the world's 1st interactive computers) • There was sexism (women were paid less and promoted less) • Wilkes was accepted by other men • She was one of the first to have a computer at home
21.	The underrepresentation of women in computing fields: A synthesis of literature using a life course perspective.	Main, J. B., & Schimpf, C.	2017	A review	<ul style="list-style-type: none"> • Not many girls ICT studies • Women lack mentors • Women lack networks in ICT • Women are excluded • No advancement opportunities • Work-life balance problem
22.	Why are women underrepresented in the American IT industry? The	Serenko, A., & Turel, O.	2021	Quantitative - survey	<ul style="list-style-type: none"> • Explicit and implicit gender identities • Male students' gender identity match with the requirements of the ICT field

	role of explicit and implicit gender identities.				<ul style="list-style-type: none"> • Female students do not consider ICT as a major • Female students do not consider ICT as a suitable career
23.	Women in the information technology profession: A literature review, synthesis and research agenda.	Ahuja, M. K.	2002	A review	<ul style="list-style-type: none"> • Labour shortage in ICT • Work-life balance problem for women • Gendered ICT culture • Lack of role models • Lack of career advancement opportunities for women • Women lack informal networks in the field • Social expectations • Occupational culture impacts women • Lack of mentors and institutional structures impact women • Women's career choice, persistence, and advancement are affected by these factors
24.	Women ICT professionals' perceptions of working in the Australian ICT industry.	Timms, C., Lankshear, C., Anderson, N., & Courtney, L.	2008	Quantitative - survey	<ul style="list-style-type: none"> • ICT culture is uninviting for women • Low female participation in ICT studies • Boy's club exists • Women excluded from decision making • Gender discrimination • Work-life balance problem • Long working hours • Women need to make a place • Women face consequences, such as lack of interest in work and stress • Misjudging technical capabilities

25.	Women in ICT: Barriers to career advancement and strategies for improvement.	Sekoaila, U., & Adebesin, F.	2016	Quantitative -survey	<ul style="list-style-type: none"> • Work-life balance problem for women • Women are under-represented • Women mostly do unpaid work • Glass ceiling • Gender discrimination • Stereotyping • Lack of mentors • Lack of advancement opportunities for women
26.	Women working in ICT: Situation and possibilities of progress in Catalonia and Spain.	Bosch, N. V., Freude, L., Samaranch, E. A., & Ramos, A. M. G.	2021	Quantitative -survey	<ul style="list-style-type: none"> • Gender discrimination • Work-life balance issues • Family conflicts • Lack of career development for women • Long working hours • Lack of support from organisations

3.6 Summary

Women have been influential in the development of modern computing, but their voices have been muted in most discussions. In contemporary contexts, women are under-represented in ICT in every domain, including education, and employment. Factors that impact women's exclusion and inclusion are diverse and include: Career growth (lack of mentors/role models, organisational policies and inflexibility, organisational structure, and work-life balance issues); and ICT culture (work demands and practices, and gendered work context).

Diversity and inclusion practices are adopted by organisations to fully engage women and minorities in organisational tasks. Yet, ICT-related studies, which were reviewed in this chapter have not thoroughly addressed the inclusion (and its aspects of belongingness and uniqueness) experiences of women ICT employees. The significance of the current study is that it addresses the need to understand in more depth women ICT employees' experiences of work group inclusion. The next chapter discusses the methodology used to answer the research questions of this study, which are:

1. How do women ICT employees experience and perceive inclusion in their work groups?
2. How do they view the relationships between inclusion, belongingness, and uniqueness?

Chapter Four: Methodology

4.0 Overview

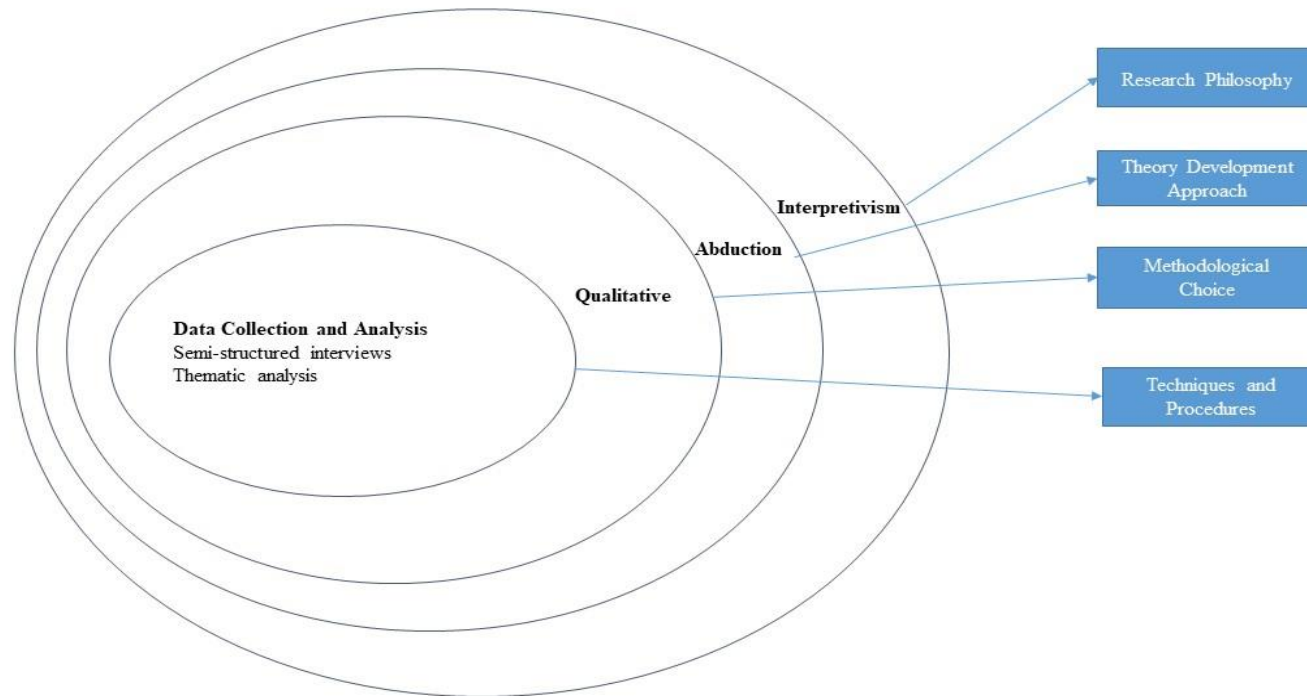
Methodology is a set of assumptions, practices, and skills that a researcher adapts for an empirical study (Denzin & Lincoln, 2005). In this chapter, an overview of the research methodology adopted to answer the research questions of this study is explained. This includes the research philosophy, theory development approach, methodological choice, research design, the data collection, and data analysis processes, and the rationale for using them. The first section, details the research process, explains the perspective from which the study was conducted, and the choices made during the study. It also includes the source of data collection with information on data gathering. The second section represents how the quality of the study was ensured. The third section discusses the data analysis procedures, and the final section considers ethics.

This study combines two research fields, which are gender and ICT, and diversity and inclusion. Recognising that the ICT profession is a gendered occupation, the study focuses on women ICT employees. In line with my HRM approach to understanding diversity and inclusion, I agree that a diverse workforce needs to be managed effectively and literature suggests that inclusion is an appropriate approach to manage diversity. Hence, this study set out to explore how women ICT employees experience and perceive work group inclusion and how they view the relationships between inclusion, belongingness, and uniqueness in a work group setting. Participants' responses provided an understanding of work group inclusion, and the analysed data answered the research questions of this study. The study aims to provide a nuanced understanding of inclusion and expands ODT through its qualitative approach.

A qualitative approach was taken to study the research concepts in-depth as it allows exploration of the phenomenon and aligns well with the chosen theory development approach. The qualitative approach helped to answer the research questions, as it provided a comprehensive view of participants' experiences and also gave a voice to participants who are a minority in their field of work.

4.1 Research Process

A step-by-step approach is taken to explain the research process adopted by the current study. The 'Research Onion' (see Figure 4.1) is a mind map, which was introduced by Saunders et al. (2015). According to them, the onion provides a metaphor, which illustrates the various sequential steps that are taken while conducting a study. Each layer of the onion allows the researcher to consider options available for the research design and describes the progression through which the methodology is designed. It is a tool that helped me as a researcher during the study make the necessary methodological choices and enabled the decisions I made. The layers of the onion were adapted to the current study by selecting the most suitable approach listed under each layer of the onion, which is explained in detail in the following sections.

Figure 4.1*Research Onion*

Source: Adapted from Saunders et al., (2015)

4.1.1 Research Philosophy

The first layer of the onion is the research philosophy. There are different schools of thought and suggestions on how research paradigms can be categorised (Creswell, 2007; Staller, 2013). Saunders et al. (2015) categorise subjectivism and objectivism under ‘ontology’ and interpretivism, positivism, and postmodernism under ‘epistemology’. According to Denzin and Lincoln (2005), epistemology, methodology, and ontology are a combination of the researcher’s paradigm. Therefore, in this study, my ontological and epistemological views are discussed under the same topic, which is research philosophy.

The first branch of research philosophy is ontology. “Ontology is the study of being, that is, the nature of existence and what constitutes reality” (Gray, 2014, p. 19), and epistemology is based on how knowledge is explored, and it involves the research paradigm (Saunders et al., 2015). According to Creswell and Poth (2018), ontology is based on the question “What is the nature of reality?” (p. 54) and researchers may study different individuals who present multiple realities in their research. Denzin and Lincoln (2005) state that objective reality can only be understood through representation. Ontologically, the objective view “believes that there is only one true social reality experienced by all social actors” (Saunders et al., 2015, p. 128) and thus, general laws are used to study human behaviours. My view in terms of ontology is subjective. Gray explains that the nature of subjectivism is to believe that the meanings are constructed from within, and those meanings consist of collective unconsciousness and beliefs. Multiple realities that exist vary in nature and reality is one’s experience, feeling, and perceptions (Ryan, 2018). Subjectivism believes “that social reality is made from the perceptions and consequent actions of social actors” (Saunders et al., 2015, p. 130). My subjective view is helpful in answering the *how* questions to

describe individuals' experiences, perceptions, and views. At the same time, as a study that connects gender and ICT, and diversity and inclusion, an in-depth exploration of employees' experiences can be achieved through the subjective view.

The second branch of research philosophy is epistemology. Epistemology, or research paradigm, as described by some authors is the way in which a researcher believes and feels about the work, and how it should be studied (Denzin & Lincoln, 2013). Creswell and Poth (2018) list the three questions on which epistemology is based: What counts as knowledge?; How are knowledge claims justified?; What is the relationship between the researcher and that being researched? Knowledge is the subjective experiences and views of participants and is justified by the manner in which the researcher acquires the knowledge (i.e., information can be collected in the context where participants live and work). The researcher can build a relationship with participants by spending more time in the research field or by connecting with them on common grounds (e.g., a woman researcher may connect well with women participants). Often, women in male-dominated fields are marginalised (Armstrong et al., 2018), and thus, in the current study, women ICT employees are given a voice. Therefore, the entire study is understood and viewed from the participants' perspectives.

As for my epistemological stance, I am an interpretivist. Being an interpretivist facilitated me to allow the social actors or individuals who were interviewed to communicate their interpretation of events and the meaning they drew from those events (Saunders et al., 2015). Interpretivism is closely linked with subjectivism (Gray, 2014; Ryan, 2018), which is my ontological view. As Nathan (2017) asserts, individuals are able to make meaning from their everyday experiences. Interpretivism is useful to understand the basic meanings attached to organisational life as

interviewees are able to explain things. As interpretivists study participants in their natural settings (Denzin & Lincoln, 2013), Saunders et al. (2015) state that this paradigm allows the researcher to discover obstacles that some individuals face. For instance, when studying the experiences of work group inclusion of participants, they were able to relate the challenges they face as women. They described the factors that influence the experiences and perceptions and why certain practices are unfavourable for some individuals. The reasons as to why some feel less included as compared to others were visible as a result of my interpretive view.

In addition, gender and IT-related studies, such as Armstrong et al.'s (2018) study has been studied from an interpretive perspective. Thus, the interpretive view enabled me to explore how women ICT employees experience and perceive work group inclusion. As Trauth (2013) states, an interpretive approach provides a better understanding of gender and ICT relations. The interpretive view helps to answer the how questions (e.g., how gender relations develop) (Trauth, 2013) and these include how individuals feel, think, and react under context-specific situations (Cavana et al., 2001). Each participant of the current study experienced inclusion in a unique organisational environment; and therefore, can be influenced by a range of organisational actors and forces.

In order to provide a comprehensive understanding of participants' inclusion experiences, I explored multiple views and lived experiences. Interacting with participants was the ideal approach to explore participants' experiences, perceptions, and views. Participants were able to explain their answers when responding to open-ended questions. Epistemology cannot be disengaged from research questions and aims (Creswell, 2014) and I believe interpretivism aligned with the research questions of this study, as it facilitated me to understand various opinions of women ICT

employees and how they experienced inclusion. The interpretivist approach guided the theory development approach, data collection, and data analysis techniques. Therefore, this phenomenon was viewed from the perspective of a subjectivist-interpretive researcher.

4.1.2 Theory Development Approach

There are three main theory development approaches available to study a research phenomenon and these three approaches serve different purposes. As stated by Saunders et al. (2015), the first one, which is the deductive approach, involves rigorous testing of a developed theory to arrive at a logical conclusion. According to them, a research study uses the deductive approach when the study commences with theory and when testing of the theory is required to prove or modify it. They also explain the second approach, which is the inductive approach. The inductive approach involves understanding a problem, collecting data, making sense through analysis, and formulating a theory based on the findings. The inductive approach is ideal when data collection is the starting point of the study and theory is built based on the exploration.

While the deductive and inductive approaches are widely known, a lesser-known third approach, abduction also exists (Spens & Kovács, 2006). First introduced by Charles Pierce in the 19th century, who studied the adequacy of induction and deduction and concluded that neither deduction nor induction was sufficient. Thus, he introduced abduction (Pierce, 1903), which is applicable to different research problems, such as those that aim to build and/or modify an existing theory. The abductive approach combines the deductive and inductive approaches as it enables moving back and forth between data and existing theoretical knowledge and allows ‘surprising’ factors to emerge from data (Kennedy, 2018). Although past research

studies have abductive aspects to them, this approach has been largely unacknowledged by scholars (Dobson et al., 2012).

The abductive approach was essential for a number of reasons. Saunders et al. (2015) state that the abductive approach can be adopted to explore a phenomenon by identifying themes and patterns to generate or modify an existing theory, which is done by additional data collection. Notably, abduction takes place within an existing framework. The literature on inclusion discusses its importance, components, belongingness and uniqueness, and ODT as the theory, which highlights the connections between inclusion, belongingness, and uniqueness. Therefore, abduction was the ideal approach for this study as literature and theory on inclusion exist to a certain extent and additional data collection was required to refine ODT. By refining ODT, a better understanding of the theory will be gained, and future researchers will be able to use the theory for studies on inclusion and organisational actors including HRM personnel will be able to use the ideas underlying ODT for the benefit of women ICT employees.

The other significant area where the abductive approach is useful is when theory is borrowed from another discipline. Taking a theory from one field and applying it in a different field is given as one of the starting points of abduction (Kirkeby, 1990). In this study, ODT was adopted from the field of social psychology and explored in the management context, or more specifically, in the ICT field. While there are many studies concerning gender and ICT, there is a lack of studies particularly looking into women ICT employees' experiences of work group inclusion. As shown in Chapter Three (see Section 3.5), studies that explore the inclusion experiences of women are limited. Thus, it was not plausible to find an inclusion-related theory previously used in gender and ICT research. It was important to study

women's inclusion experiences and therefore, it was required to adopt a theory from another discipline and ODT was ideal, as it was not a commonly used theory in women in the ICT discipline.

It is important to align the theory development approach with the researcher's epistemological view. The abductive approach aligns well with my interpretivist philosophical view (Blaikie, 2004). As explained by Ong (2012), the abductive approach is firmly grounded in the interpretive paradigm. Interpretivism as explained in the above section views that multiple realities exist, and that reality is constructed by social actors. Ong further explains that the aim of the abductive approach is "to describe and understand social life in terms of social actors' motives and accounts" (Ong, 2012, p. 9). It is noticeable that interpretivism and abduction align with each other since the rationale of the abductive approach is to give attention to intentions, interpretations, meanings, and motives. Abduction acknowledges that the behaviour of humans depends largely on how they interpret their environment. Therefore, interpretivists can use an abductive approach to draw the meanings attached to various concepts.

In this study, the abductive approach is viewed as a technique that bridges the gap between theory and practice, as it provides a better understanding of the research phenomenon. The aim of this study was to gain a comprehensive view of women's experiences in ICT. As a result of all the above-stated reasons, the abductive strategy was the ideal approach for this study.

4.1.3 Methodological Choice

Researchers may use qualitative, quantitative or mixed methods to study a research phenomenon (Creswell, 2014). In order to answer the research questions of this study, qualitative methods were chosen.

Usually, a quantitative method is used when relationships between variables need to be tested instead of explored, whereas a qualitative method enables exploration through theoretical lenses to view concepts (Creswell & Poth, 2018; Levitt et al., 2017). As explained by Graebner et al. (2012), qualitative data is: usually open-ended, which fosters the exploratory and flexible nature of descriptions; correct and vivid, which enable development and communication of ideas; and, rich and nuanced, which capture details and mechanisms that are often missed in quantitative data. Thus, as a result of my philosophical view and the exploratory nature of the study at hand, a qualitative method was the most suitable to answer the research questions. This method also allows in-depth questioning with probes and further exploration based on respondents' answers.

As stated by Levitt et al. (2017) interpretive researchers use dialogical exchanges under the qualitative umbrella to uncover meanings held by participants. These dialogical exchanges result in data collected in the form of words, such as accounts, descriptions, feelings, and opinions (Walliman, 2011), which is also the type of data I aimed to collect. A holistic view of the research topic can be given in qualitative studies without limiting its facts to a cause-and-effect relationship (Creswell & Poth, 2018). This type of data is common when participants are the main focus of the study. This is one of the main differences between quantitative and qualitative studies as qualitative research is framed in words and quantitative research is framed in numbers (Creswell, 2009).

Qualitative data is also used when the existing theory is less supported by empirical data (Graebner et al., 2012). As discussed in Chapter Two, more empirical data is advised to support and develop ODT. Thus, the explorative nature of this study enabled me to understand the experiences and perceptions of women and how they view the relationships between inclusion, belongingness, and uniqueness to refine ODT for potential future research. The participants were able to share their experiences without any constraints that were pre-established by the research design. As a result of the qualitative approach, work context, and gender-related aspects that impact the inclusion of women and additional data related to women's experiences were obtained. The additional aspects were age, culture and upbringing, organisational leaders' influence on work group inclusion, the impact of one's personality, and social class on inclusion. Such additional data may not have been attained through a quantitative technique.

One more point, which supported the decision to use qualitative methods, was the fact that reality was viewed through an interpretive lens. Interpretivists tend to use qualitative methods to understand a research phenomenon through the eyes of the participants (Creswell & Poth, 2018). In addition, Creswell and Poth (2018) also note that the researcher is key in qualitative research since the researcher mainly focuses on the meanings provided by participants on the given topic and is aware of the contextual factors, and interactions that influence the participants' experiences. Understanding the setting, or context, where the participant is experiencing the phenomenon, is essential to build a story. Thus, Creswell and Poth suggest the researcher's background be included in the thesis to help the reader better understand the interpretation of data (see p. xiv). This facilitates the researcher to be transparent about her role and allows the reader to get an idea about the researcher.

Qualitative methods are commonly used by researchers who explore individuals' experiences. As Trauth (2002) explains, qualitative exploration provides a voice to women in ICT since "Statistics tell one story; this [qualitative] research tells the story behind that story" (Trauth, 2002, p. 104). Previous scholars, Hatmaker (2013) and Kao (2015) who have studied individuals' experiences and perceptions have taken a qualitative approach, as this approach facilitates understanding and exploration of the phenomenon in-depth (Creswell & Poth, 2018) enabling participants to express themselves in their own words to capture their own subjective experiences (Graebner et al., 2012). The next sections will discuss the techniques and procedures of this study, which were driven by the research questions.

4.1.4 Techniques and Procedures

This section presents the techniques and procedures that were adopted to explore the research phenomenon. The research context, recruitment and selection of participants, data collection, interview guide, and the interviews are explained in detail.

4.1.4.1 The Research Context. According to a report by the New Zealand Ministry of Business, Innovation and Employment (MBIE), the ICT sector is growing domestically and continuous employment growth is predicted (MBIE, 2017). It has been reported that the number of IT occupations has increased by over 24,000 in the 10 years to 2016 and it is expected to continue growing (MBIE, 2017). There is a significant contribution of the ICT sector in the growth rate of the country's Gross Domestic Product (GDP). ICT's contribution to New Zealand's GDP was NZ\$ 7,066 million in 2008 and NZ\$ 8,899 million in 2015 (MBIE, 2017). Thus, the contribution has grown by NZ\$ 1,833 million in seven years and its contribution is important to New Zealand as a country.

In spite of the significance of this field, there is a shortage of labour in this sector and it is predicted that the shortage of ICT employees will continue to rise worldwide (Australian Bureau of Statistics, 2006; Zweben & Aspray, 2004). It is also reported that universities are unable to cater to this growing demand (Timms et al., 2008). Thus, it is important to encourage more individuals to enter this profession, including New Zealand.

Previous studies of inclusion have been conducted using participants from fields, such as the biomedical field (Nishii, 2013), healthcare, financial services, retail (Randel et al., 2016), the police service (Linton, 2017), and social work (Mor Barak, 2000). Collectively, these studies have shown the significant impact of inclusion in creating positive experiences for employees. ICT was the ideal context for the present study for many reasons. Firstly, women are a minority in ICT as the field is commonly known for its gendered processes and practices that benefit men (Alegria, 2019). Secondly, the choice of ICT also broadens the research field since there is a dearth of knowledge on women's experiences of inclusion in ICT. Although knowledge workers and ICT employees are beneficial in creating business values for workplaces in that the ICT field supports many businesses, studies that systematically explored the experiences, perceptions, and views of inclusion of women ICT employees is limited. Thirdly, as discussed above, the ICT sector contributes to the growth of GDP in New Zealand and thus is significant to New Zealand and its workforce. Weckert and Lucas (2013) indicate that ICT has changed human lives and workplaces forever and as ICT enables all other fields, such as Medicine and Science, women need to be represented amongst those innovating and designing the ICT, which is so fundamental to human life.

4.1.4.2 Recruitment of Participants. Purposive and snowball sampling techniques were used to recruit participants for this study. Purposive sampling is selective approach sampling where participants are selected based on certain characteristics and the snowball sampling technique follows an initial technique, such as purposive sampling, where additional participants are provided by initial respondents (Acharya et al., 2013). These two techniques were used as initial participants were recruited based on a set of criteria (see Section 4.1.4.3). Subsequently, initial participants introduced more participants, their personal contacts, for the study. All the participants including the personal contacts of initial contacts fitted the eligibility criteria that were developed (see Section 4.1.4.3). Using these techniques, a total of 55 people were approached to participate in this study. Nineteen people rejected the request to participate due to various reasons, such as lack of time, availability, or interest. This left 36 participants who were interviewed for this study. More information about the criteria used to select participants and their characteristics is given below.

To recruit participants for the study, I first approached the Information Technology Employees New Zealand (ITP), previously known as the Computer Society of New Zealand. The Society initially agreed to post the ‘requests for participation’ (See Appendix A) on their social media platforms, which included Facebook and LinkedIn. Later, they informed me that due to having recently shared a survey among their members, they were unable to share another request. I then approached the NZ Tech Women Society and sought their assistance to share the request and they shared the request for participation in one of their newsletters and potential participants sent me emails expressing their willingness to participate. Another approach taken was asking my personal contacts to share the request for

participation with their networks. There was neither prior knowledge of the potential participants nor a previous relationship with any of them. In order to protect the identity of participants, my personal contacts were not informed about who was interviewed and who was not. The request for participation was also shared on my personal LinkedIn profile and individuals who were interested to participate contacted me directly.

The total number of interviews conducted was 36. Although the number aligns with past studies, data was collected until saturation was met. Morse (1995) has defined saturation as ‘data adequacy’, which is collecting data until no new information is found. By the time participant number 33 was reached, no new data was being received. Nevertheless, three more interviews were conducted to ensure that saturation was reached.

4.1.4.3 Selection of Participants. A set of criteria was developed to select suitable participants for the study. The criteria for the selection of participants were:

- individuals engaged in permanent, full-time employment
- individuals who identify as women (self-identification was significant as one woman participant was transgender)
- individuals working as ICT employees in an organisation in New Zealand
- having been employed for more than a year and less than 10 years (High tenure is associated with a high level of inclusion (Gu & Wang, 2012; Pelled et al., 1999))
- employees aged between 18 and 65 years (According to the New Zealand government site, the retirement age is 65 (New Zealand Government, 2016))
- able to read the information sheet in English

- employees working in a formalised work group, and
- willing to share experiences, perceptions, and views of working in the ICT field.

The principle of employee inclusion is not dependent on organisational hierarchy, as inclusion enables employees at all hierarchical levels to feel integrated and represented (Ortlieb & Sieben, 2014). The current study did not limit its participants to a specific category, such as women in higher positions (e.g., Demaiter & Adams, 2009), rather, a diverse range of women's experiences was explored in the ICT profession. Therefore, the organisational actors were from different hierarchical levels and groups, as using multiple informants enabled me to obtain diverse perspectives on the phenomenon being studied (Eisenhardt & Graebner, 2007). The participants' designations ranged from IT Coordinator to Director – IT. In addition to hierarchical factors, participants varied demographically in terms of age and ethnicity.

There were 15 New Zealanders (13 NZ European and two Māori), two Europeans, 14 Asians (eight Indians, four Filipinos, and two Pakistanis), four Middle Eastern individuals and one South American participant (Although participants originated from different countries, they were New Zealand residents). There were 10 aged between 18-30, 12 aged between 31-40, 11 aged between 41-50, two aged between 51-60, and one aged between 61-65. As for their educational background, most of them had some qualifications, especially if they were migrants. They were qualified with a Bachelor's degree (13 participants), a Master's qualification (10 participants), and two had PhDs. Out of the 21 migrants, 20 of them held a Bachelor's degree or higher qualification and 11 out of 15 New Zealanders a Bachelor's degree or higher qualification. They had been employed in the ICT field for between one to 33 years and some of their designations were IT engineer, developer, lecturer, IT

technician, IT manager, and IT director. They all worked in a variety of ICT roles, such as in Engineering, Programming, Project Management, and Teaching. Out of all the participants, 34 worked in private organisations while two worked in the public sector. Details of each participant in tabular form are provided in Appendix B.

4.1.4.4 Data Collection. In order to uncover the meanings that are held by people, interpretive researchers often engage in dialogues with participants (Levitt et al., 2017). Accordingly, to cover the research questions from a qualitative perspective, data was collected by semi-structured individual interviews (see Appendices C & D), which were conducted face-to-face, via Skype, and by phone. As discussed earlier, the interviews were conducted in New Zealand and interview locations were wherever was convenient for the participant to share their ideas and views. Since permission from participants' workplaces was not obtained in advance, most participants were met at a public place outside of work hours. Each interview lasted a maximum of 90 minutes, a minimum of 45 minutes and was audio-recorded with prior permission from the participant (see Appendix E). Between June 2018 and September 2018, 36 people were interviewed from across New Zealand.

During the interview, I, as the interviewer asked questions and the participant responded. If something was not clear to me, clarifications were sought, and the participant usually explained with examples. There is a possibility for the researcher to interpret the answers through the lens of the research context without capturing the real meaning of what the participants answered since according to Creswell (2009) and Crewell and Poth (2018), researchers' personal experiences influence data. Despite efforts to the contrary, my personal views and experiences may have influenced the interpretation of answers. The section on the researcher's reflection (see p. xiv) addresses the researcher's knowledge and experiences as suggested by

Creswell and Poth. Also, the qualitative method of data collection is adopted when one needs to hear participants' voices, to understand the context and experiences (Creswell & Poth, 2018). Yet, one participant's view cannot be taken as the reality of the entire organisation, as different individuals may have different views about the same organisation. There were two instances when two participants from the same organisation were interviewed, and their experiences and perceptions of the work group were similar.

A semi-structured interview guide (see Appendix C) was prepared as it allows room to explore the phenomenon while retaining a relationship with the theoretical background (Galletta, 2013). This means that new ideas emerged as participants were allowed to describe situations without limiting their responses to a particular scale. Scales are indexes or items, which are used to measure variables that cannot be directly measured (Walliman, 2011). This brought additional insights into the broader experiences of employees and according to Denzin and Lincoln (1994), the researcher is able to get closer to the participants' perspectives. At the same time, a semi-structured guide helps to keep the conversation on track. It was, therefore, the most suitable method to adopt since it enabled prompts during the interview when required.

There are two types of questions in a semi-structured interview guide; open-ended questions and closed-ended questions. Open-ended questions enable the interviewees to share their views and to relate stories as to how they have personally experienced the matters discussed (Creswell, 2009). Hence, the interview guide mostly consisted of open-ended questions, such as, "Can you tell me what inclusion means to you or what it means to be included?" Yet, some closed-ended questions, such as, "Does this feeling (*of belonging*) make you feel included?" were included with sub-questions, such as, "If so, what role does it play?" allowing the participants

to explain the answer in detail. The questions related to belongingness and uniqueness were prepared using the attributes identified in the literature (see Section 2.3.5).

4.1.4.5 Semi-structured Interview Guide: Attributes of Belongingness and Uniqueness. The questions asked by the researcher should be able to obtain rich and thick data (Turner, 2010). The objective was to allow participants to describe their experiences and feelings; however, a few questions, two on belongingness and three on uniqueness including sub-questions, related to concepts of belongingness and uniqueness were designed using some attributes developed by Stamper and Masterson (2002) and Lynn and Harris (1997) respectively. The nature of the questions was based on the ability to shed light on women's experiences of inclusion.

Inclusion has been studied by researchers using more work-related aspects, such as access to organisational information (Janssens & Zanoni, 2008). For instance, Mor Barak (1998) and O'Hara (1994) have used three such work-related attributes that increase inclusion in organisations. According to them, access to organisational information, the ability to engage in organisational decision-making, and job security are factors that contribute to inclusion. Although this could be one approach to inclusion, this may not be the best way to study inclusion. I argue that these aspects are unable to capture individuals' experiences and perceptions of being included in terms of belongingness and uniqueness since these are rank-sensitive. This point is elaborated in the Literature Review, Chapter Two (see Section 2.3.1).

As a qualitative study, the term 'attribute' is used instead of the term 'scale' or 'item', which are quantitative terms. While attempting to build on Shore et al.'s (2011) work on inclusion, Jansen et al. (2014) developed attributes to study belongingness. These attributes include 'feeling like a part of the team', 'treated as an insider', and

‘receiving appreciation for work’. The attributes Jansen et al. introduced for belongingness are useful. Yet, Jansen et al. did not develop a set of attributes for uniqueness, as their study focused on replacing uniqueness with authenticity. Hence, the study introduced aspects of authenticity. As discussed earlier in the literature review (see Section 2.3.7), the current study continues to use uniqueness and Jansen et al.’s work deviates from Shore et al.’s work on inclusion (Chung et al., 2019). It is noticeable that the attributes they have developed for authenticity are quite similar to those of uniqueness developed by Lynn and Harris (1997). Thus, the attributes by Lynn and Harris were chosen, as they were more appropriate to explore uniqueness.

A set of attributes that could be used to understand the concept of uniqueness has been developed by Snyder and Fromkin (1977). However, it is noticeable that people prefer to be unique in a more socially acceptable way than a socially risky one; that is, there is a tendency for individuals to avoid public disagreement (Lynn & Snyder, 2002). Therefore, the attributes developed by Lynn and Harris (1997) have been identified as more useful when compared to the set of attributes by Snyder and Fromkin as it covers the need for uniqueness in a more socially acceptable manner (see Table 4.1). Since the attributes are mostly used by quantitative studies as scales to measure a concept, the chosen attributes were adapted to suit the qualitative nature of this study. One main question and two sub-questions were developed using the main idea of the attributes and the questions helped to answer the study’s research questions.

Table 4.1*Attributes of Uniqueness*

Original item from Lynn and Harris (1997)	Reworded attribute	Question
I prefer being different to others.	The extent to which an individual prefers being different from others.	How unique do you want to be from the rest of the group members?
Being different is important to me.	The extent to which being distinctive is important to an individual.	How important is it for you to be distinctive from others? (<i>Prompt</i>).
I intentionally do things to make myself different from those around me.	Whether the individual intentionally does things to make her/himself different from those around her.	Would this include doing things differently intentionally? If yes, how so? (<i>Sub-question</i>).

Source: Adapted from Lynn and Harris, (1997)

The closest set of attributes that could be used to understand the concept of belongingness has been developed by Stamper and Masterson (2002). They have developed the attributes in order to study the perceived insider status of individuals. Stamper and Masterson acknowledge that perceived insider status is useful to understand the extent to which individuals feel like insiders yet, it is plausible to differ from inclusion. This statement is supported by Shore et al. (2011) as they state that belongingness only describes part of inclusion, which is ‘feeling like an insider’.

Hence, the attributes by Stamper and Masterson can be used to understand perceived insider status and these attributes are suitable to study belongingness (See Table 4.2). Similar to the attributes of uniqueness, the attributes of belongingness were adapted to suit the qualitative nature of this study. The underlying idea behind the items was used to design two questions for the semi-structured interview guide. Therefore, the qualitative nature of the study was maintained throughout the study.

Table 4.2

Attributes of Belongingness

Original item from Stamper and Masterson (2002)	Reworded attribute	Question
I feel very much a part of my work organisation.	The extent to which an employee feels that she is a part of the work group.	Do you feel you are a part of this work group? Yes/No. Please explain your answer.
My work organisation makes me frequently feel 'left out'.	Whether he/she frequently feels being 'left out'.	Have you ever felt being 'left out'? Please explain.

Source: Adapted from Stamper and Masterson, (2002)

4.1.4.6 Interviews. To check the usefulness and suitability of the interview schedule it was piloted with five people in my social networks including fellow PhD students and my supervisors. The number of questions on the interview guide was

reduced from 28 to 19 after the pilot study. For instance, questions, such as “Do you feel like an insider or an outsider in your work group?” were removed and alternative questions, which do not directly imply the work group status were used. The changes were made, as the pilot study suggested that participants were finding it difficult to understand the question and/or the question might make the participant uncomfortable. Simple terms were used in questions to make it easy for every individual to understand. Then a second pilot phase was undertaken by conducting two interviews with ICT employees. During these interviews, it was noticeable that the order of the questions was confusing to the interviewee. Questions on belongingness directly after questions on inclusion made it difficult for the interviewees to differentiate the meanings of inclusion and belongingness. Thus, the sequence was changed, and some repetitive questions were removed. Data collected from the seven pilot interviews were not included in the analysis.

The formal interviews were conducted in six sections (see Appendix C). Firstly, the demographic details of the participants were collected. These included the participant’s age, ethnicity, highest qualifications, and job title. The length of time she had been in the ICT field and the current organisation were also collected. Next, general questions on their work context were elicited, such as their role in the organisation, the path they took to arrive in the current position and the barriers they faced (Questions 1-3). This section of the interview helped participants share the gender-related challenges they had to face during their journey.

The interview continued onto specific aspects of the concepts. These sections comprised questions about their understanding of inclusion, belongingness, uniqueness, and the balance between the two needs. The initial questions on inclusion, belongingness, and uniqueness were less structured to allow the participants to

describe their understanding of these concepts. That is; “Can you tell me what inclusion means to you?”. This allowed me to gain an in-depth understanding of the employee’s perceptions. After asking them to explain what they understood by these terms, they were asked about the importance of each of these concepts and whether their need for uniqueness and belongingness were satisfied by the work group. These questions were designed to explore the defined attributes of uniqueness (Questions 9 and 10) and belongingness (Questions 14 and 15).

After summarising what the participant said about uniqueness and belongingness, they were asked whether they found a relationship between the two concepts (Question 16). Next, they were asked whether they felt the need to balance between showing their uniqueness and the need to belong. The same question about balance continued by asking whether they expected the work group to fulfil these two feelings at the same level and whether they felt a desire to fulfil the other when one need is fulfilled (Question 17).

In order to gain a deeper insight into their understanding of the balance and the relationships between inclusion, belongingness, and uniqueness, another approach was required. Therefore, to gather information regarding the tension between belongingness, and uniqueness, vignettes were employed (see Appendix D). These vignettes were provided to the participants at the last phase of the interview (before Question 18). In this manner, the participants’ understanding of the concepts was explored without informing them about how the concepts are explained in the literature. Vignettes are defined as stories about individuals, situations, or structures that refer to important points in studies of attitudes, beliefs, and perceptions (Hazel, 1995). This technique can elicit perceptions from respondees, or comments to stories depicting scenarios, and is increasingly being used for qualitative research (Barter &

Renold, 2000). The first vignette described a scenario where a person only felt they belonged in a work group, the second described a scenario where a person's need for uniqueness was satisfied, and the third described a scenario where a person's needs for belongingness and uniqueness were both fulfilled at the same level (see Appendix D). The participants were asked to select the ideal scenario that suited them. Vignettes that depicted the ideal situations for this study were not found, hence the vignettes were written based on the literature on belongingness, uniqueness, and balance. By using vignettes, participants' answers to Question 18 onwards related to participants' perceptions about inclusion, the balance between belongingness and uniqueness, and the relationships between belongingness, uniqueness, and inclusion, were reinforced.

Once the formal interviewing was underway there were some further minor adjustments made to the interview schedule. For instance, after four interviews, I changed the questions about balance so that they were asked in a more straightforward way that the participants could more easily understand. From the fifth interview onwards, the participants were asked if they found a relationship between the two feelings and whether they needed to balance them. After conducting nine interviews, it was noticeable that the participants gave contradicting answers to questions on balance. For instance, when asked if they feel the need for uniqueness and belongingness to be addressed at the same level (Question 17), they preferred one over the other (belongingness or uniqueness) and when choosing the ideal scenario, most of them selected the third scenario, which explained a situation where the need for belongingness and uniqueness were satisfied at the same level. Thus, another question (Question 20), which asked why they selected scenario three if they thought, one feeling, belongingness, and/or uniqueness was more important than the other was

added. This was an optional question, which was asked only if they thought that it was not necessary for both needs to be satisfied at the same level.

The last question of the interview guide allowed the participants to expand issues that they thought were not sufficiently covered by the researcher. Some said that other factors also made a difference to inclusion, such as age, culture, and social class. For instance, some participants discussed their past work experience during this time.

The changes made to the semi-structured interview guide (see Appendix C) improved the flow, sequence, and understandability of the interview questions and enabled me to make better sense of what people were telling me in interviews. An understanding of the background of the participants was gained and it became easier to understand why they made some choices as they justified them.

During the interviews, the interviewer remains open to new emerging ideas to understand the experiences and interpretations (Orlikowski, 2002) as this helps to gain a thorough understanding of the participant's experiences. Although there were some sensitive questions, participants answered all of them and no one refused to answer any question. The fact that the interviewer was a woman, may have encouraged the participants to share their experiences more easily. I conducted the interviews myself to explore and observe the behaviours of participants as combining interviews and observation are useful to understand the phenomenon in-depth (Gray, 2014). While it was not possible to observe every participant face-to-face (some interviews were conducted via phone), informal observations did take place whenever face-to-face or Skype interviews were conducted. This allowed me to study their body language, and

whether they were hesitant to answer, whether they were confident and felt comfortable.

A lot of positive feedback was received from the participants for the areas covered by the semi-structured interview guide. After the interview, respondent INC32 stated, “I was looking through your three scenarios and when I read scenario one, I just about fell off my chair because that is exactly how I feel I'm taken by the people that I work with”, and she also added that scenario three is fantastic, but not realistic. After the interviews, participants INC21 and INC31 sent more thoughts, via e-mail on the interview questions adding that they appreciated the questions, as they were very relevant to the participants. Respondent INC24 stated, “This is a very good exercise. I haven't talked about it with anyone. It makes me love my team more”. The participants' comments indicate that the questions in the interview guide were significant.

It was noticeable that work group context-related factors played a role in the experiences of individuals. The responses of the participants implied that the experiences of inclusion were impacted by the work group context. “The whole sense of inclusion comes from the team” (INC5). Hence, it was appropriate to consider the work group environment in the literature review (see Section 2.3.3) and in the semi-structured interview guide, through questions related to uniqueness and belongingness, as they were highlighted in the findings.

4.2 Quality Evaluation of a Qualitative Study

Certain qualitative researchers refrain from using terms, such as, ‘validity’, ‘reliability’, and ‘generalisability’ since these terms are more inclined towards quantitative research. There are debates on whether terms, such as validity and

reliability should be used in qualitative research (Creswell & Poth, 2018). Qualitative researchers may use the same terms, but this mainly depends on the chosen research philosophy. There is ambiguity as to which qualitative terms would be suitable to demonstrate the credibility of qualitative research (Golafshani, 2003). Therefore, to demonstrate the quality of this study, an explanation is provided through this study's interpretive perspective.

In qualitative studies, some use the term 'trustworthiness', but the term validity can also be used (Creswell & Poth, 2018). Qualitative researchers attempt to demonstrate the credibility of their research by incorporating methodological strategies, which ensure the trustworthiness of the findings (Noble & Smith, 2015). A strategy that employs trustworthiness includes rich and thick descriptions in the form of well-documented interpretations for others to understand the meanings (Creswell & Miller, 2000; Creswell & Poth, 2018). The trustworthiness of an interview refers to gathering meaningful and useful inferences from results (Creswell, 2009), which is driven by two perspectives, the lens of the researcher and the paradigm (Creswell & Miller, 2000). The responses obtained gave a good understanding of women's experiences, perceptions, and views of inclusion in work groups, particularly in terms of their need for uniqueness and belongingness and their gendered experiences in ICT. Participants' experiences were covered in-depth and clarifications were sought where necessary. Audio recording the interviews allowed me to revisit the rich data gathered whenever required. Every aspect of work group inclusion may not have been explored in-depth during the 45-90 minute interviews, yet, the required data and clarifications were obtained. Another strategy to ensure trustworthiness is clarifying the researcher's bias and engaging in reflexivity (Creswell & Poth, 2018). In terms of the truth-value of my study, while I acknowledge that my experiences may have influenced the

interpretation of data, I have presented participants' perspectives as objectively as possible, and the researcher's reflection included in the thesis supports this (see p. xiv). Additionally, during data analysis, examples of the codes were checked with supervisors. The supervisory team did several iterations, which helped the data analysis process. Hence, the data was not analysed from one person's point of view only and this approach to data analysis facilitates trustworthiness. A summary of data coding is also provided in this chapter (see Section 4.3.1).

According to Creswell and Poth (2018), qualitative researchers pursue dependability instead of reliability. Dependability refers to obtaining the same responses when that person is asked the same question, which is consistent (Creswell, 2009; Creswell & Poth, 2018). Consistency around the concepts of gender diversity and inclusion is difficult to attain given that the circumstances of participants may change. A person may feel included in the current work group, but her/his perceptions may change when she/he joins a different work group in the same organisation or at another time. The moods of the participants can also be taken into account as the experiences of inclusion highly depend on moods (Jansen et al., 2014). As far as dependability in terms of accuracy and transparency of methods adopted by the researcher is concerned (Noble & Smith, 2015), a pilot study conducted with seven participants prior to the actual study indicate comparable findings and that the methods were linked to my philosophical position, experiences, and perspectives.

The other aspect, which informs the credibility of research studies and enhances quality, is the generalisability of concepts and constructs. When concepts can be used in other contexts, they are considered generalisable (Saunders et al., 2015). Often qualitative researchers do not intend to generalise research findings because they intend to provide rich and contextualised data to the study at hand (Polit & Beck,

2010). Therefore, as a study, which collected data from 36 interviews of women IT employees, the objective was not to generalise the findings, but to provide a comprehensive picture of the women's experiences in ICT. The ability to transfer findings to other contexts refers to applicability. It is difficult to state whether women's experiences, perceptions, and views of work group inclusion in other contexts would be similar. Experiences, perceptions, and views vary from person to person, so other women in the same profession, or other professions may have different views and opinions on inclusion. However, as suggested by Polit and Beck (2010), the current study provides rich descriptive data about women ICT employees' experiences of inclusion.

To conclude this section, the interviews conducted for this study provided relevant information related to the research questions. I am highly grateful to my participants who shared their experiences and opinions willingly. Although the area of inclusion is quite sensitive, none of the participants refused or refrained from answering questions, which demonstrates the trust garnered through the research process.

4.3 Data Analysis

Thematic analysis was the method used for data analysis. Thematic analysis is a common method for analysing qualitative interview data and can be adapted to suit a variety of purposes. Thematic analysis is useful to systematically summarise the key features of a large body of data and enables identifying, analysing, and reporting patterns within data (Braun & Clarke, 2006). It also enables individual voices to be compared and contrasted. Thus, this method of data analysis was suitable for the nature of this study, as it provides a wide range of analytic options. Many gender and ICT-related studies, such as Annabi and Lebovitz (2018) and Hardey (2019), and

inclusion-related studies, such as Block et al. (2015) and Fredette et al. (2016), have used thematic analysis. So, in this study, thematic analysis was used to explore women ICT employees' experiences, perceptions, and views of work group inclusion.

A series of steps was followed in the thematic analysis method. Thematic analysis is a flexible and useful method in its own right (Braun & Clarke, 2006). Braun and Clarke recognise a theme as a shared meaning, which captures the essence that might otherwise be lost in raw data. Chunks of data taken from an extract are called 'codes', which captures the underlying meaning. Similar codes are then grouped together as themes.

The interviews were transcribed by me and the transcripts were checked with the recordings several times to ensure that commentary was properly captured. Some preliminary data analysis was conducted between interviews to enable me to adapt the interview guide accordingly and to get a sense of the analysis. Examples of codes were checked with the supervisory team. This systematic, recursive, and repetitive process of qualitative data analysis, which is known as the iterative method, enables flexibility, and changes that are required for the research design (Mills et al., 2010).

Transcribing interviews is the first step of data analysis and this helped me familiarise myself with the data to get an initial understanding of participants' ideas and views (Braun & Clarke, 2006). Some researchers, such as Bird (2005), consider this step as a 'key phase' of analysis in interpretative qualitative research. Therefore, time was spent transcribing every interview and checking the transcripts with the original recording to make sure that every word and paralinguistics, such as pauses, were captured. Next, more time was spent reading the transcripts from start to end to

identify the patterns in a very informal manner while taking notes. These two steps were useful to familiarise myself with the data.

The data management tool, NVivo 12, was used to code data by recognising aspects in the collected data which form repeated patterns. Initially, the entire data set was read to note interesting and repeated ideas of participants. Chunks of data were given codes. Repeated ideas and patterns were identified, and similar codes were put together under one theme. After coding 10 interviews, a coding framework was developed, which helped me to ensure the patterns and relationships. This step was followed by another round of coding where the same transcripts were re-read to ensure that the codes and themes were appropriate. This time, without looking at the coding framework or previous codes, coding was repeated, and the codes were compared to the initial codes. In this stage, general ideas became useful themes and repeated ideas became evident.

Although themes were noticeable after two rounds of coding, it was necessary to review the initial codes and themes with another round of coding as suggested by Braun and Clarke (2006) in their method of data analysis. As the third round of the coding process was taking place, themes were named properly as they were easily recognised. These themes and codes were checked with the initial coding framework to ensure that the new codes aligned with some of the codes in the framework. Once it was apparent that most of them matched with the initial coding framework, further thematic analysis was conducted with the rest of the transcripts and participants' experiences became clearer. Some codes and themes were discarded, some were combined, and a few new themes were also generated. A fourth round of analysis was conducted to further justify the generated themes and codes. This time, all the transcripts were analysed, and the themes and codes were similar to the ones generated

in the previous three rounds. The process was repeated to obtain a thorough picture of the findings. This process allowed me to get an understanding of participants' views and ideas. One of the challenges in coding was extracting more out of data chunks. My supervisors encouraged me to repeat the coding process several times to ensure that the best possible meanings of the data were identified.

The thematic analysis method suited the explorative nature of the current study. As stated by Earthy and Cronin (2008), social researchers regard participants' descriptions as accurate experiences of the phenomenon. They define it as an approach taken to understand how and why individuals describe their experiences. The thematic analysis approach contributed towards formulating the findings of this study. A summary is presented below as an example of the analysis process employed to increase the trustworthiness of this study with the codes/themes bolded in brackets.

4.3.1 Example: INC10

INC10 held the position of IT governance manager at an organisation. Being a woman in ICT, she has faced certain difficulties during meetings. Male colleagues have given 'weird' comments to her. INC10 recalled,

I said to him, I don't think that's right. We should do it this way". He goes like "Oooh are we touchy? Is it that time of the month?". I said, Excuse me. I just went red. I was so embarrassed. (INC10) (***Inconveniences due to men - Gender discrimination***).

She explained that inclusion was being accepted as a part of the team (***Acceptance***) and being treated as an equal (***Treated as equals***) without being disadvantaged due to gender. INC10 felt included in her work group and explained that her voice was being heard, "I feel that we've got that right. I don't feel like I have to keep quiet and not share my opinion. I feel like I can say what I think" (***Voice heard***

- *Voice*). She rated the importance of uniqueness as seven out of 10 and thought that her ideas got rejected initially. INC10 had noticed that her ideas were accepted later when other group members realised that her ideas were good (*Ideas get accepted ultimately - Recognition of contributions*). She did not believe that uniqueness played a role in making one feel included, rather, she felt that it was difficult to be unique. “I think that when you're unique, you're an outsider. Sometimes it does, but the majority of the time, no. If you have an in-group and an out-group, I find that I'm often on the out-group because I am different” (*Too unique*).

She felt like part of the work group (*Part of the group*) and accepted (*Accepted in the work group – Feeling of acceptance*). However, she also admitted that there were instances where she had felt left-out, “Because I'm a manager, I do feel left out sometimes with my team because there's always that. Manager, we won't tell them all that, we won't include them” (*Sometimes left out - Accepted in the work group*). Although she had felt like she belonged to her work group initially, the level of belongingness started to reduce.

INC10 admitted that being too unique reduced her chances of belonging. At the time of the interview, she was experiencing how her unique contributions were being rejected. On a personal level, she felt that both belongingness and uniqueness needed to be balanced, “I think it has to be balanced” (*Aligning uniqueness with belongingness*). INC10 chose scenario three as she believed that both belongingness and uniqueness were necessary to feel included.

Three would be ideal. You're in a supportive team, you feel connected and accepted as part of the group and that you're encouraged to share your opinions. They're considered even if they're not acted on, they're considered. She feels that her knowledge and unique attributes are appreciated and that she belongs.

That will be the ideal! (INC10) (*Both belongingness and uniqueness are important*).

4.4 Ethical Considerations

Full ethics approval was sought and gained for this study from the Massey University Human Ethics Committee (see Appendix F). The main ethical issues that were considered likely to arise were included in the ethics application and are discussed in this section.

As discussed previously, the semi-structured interview guide (see Appendix C) was designed to capture women ICT employees' experiences and perceptions related to work group inclusion and how they viewed the relationships between inclusion, belongingness, and uniqueness. A number of ethical concerns could arise, such as maintaining the anonymity of participants during the study, so various processes were designed to mitigate and manage any ethical issues, should they arise. In qualitative research, the researcher-participant relationship plays a role in reducing ethical issues (Merriam & Tisdell, 2015). The confidentiality of the participant has to be maintained throughout if she/he is reluctant to reveal the identity to a third party (Silverman, 2016).

An information sheet (see Appendix G), which contains the purpose of the study, the details of the procedure (time duration of the interview), the rights of the participants, the contact details of the research team and the details of the helplines, were given to each participant. The participants were then able to decide whether they wished to participate or not. Also, only participants who were able to read the information sheet in English and sign the consent form (see Appendix E) were chosen. The consent required the participants to select whether they agreed to the interview

being recorded and whether they wanted the recordings to be returned to them. After reading the form, every participant accepted and agreed with the interview procedure and signed the form.

It is the researcher's duty to ensure their research has a low or no risk of causing any harm, emotional, or otherwise. Potential issues that might arise were discussed with my peers, supervisors, other faculty members, and also with a Māori advisor at the university. It was anticipated that the respondents would be hesitant when discussing certain matters pertaining to their work groups. They may not have been comfortable in expressing if they were being 'left out' by other group members or if their opinions were being rejected in group discussions. In such situations, unpleasant memories may have been retrieved (Merriam & Tisdell, 2015). Therefore, if participants were distressed or unhappy during or after the interview, details of helplines, such as Lifeline – 0800 543 354, Healthline – 0800 611 116 and Depression Helpline – 0800 111 757 or free text 4202 were provided to make them feel comfortable.

Certain sensitive matters might not have been expressed easily and participants may have become emotional. It is a skill to handle the situation appropriately without causing any harm to the participant (Clarke, 2006). Observation is another concern as it may disturb the regular activities of the participant (Merriam & Tisdell, 2015). Therefore, to the best of my ability, I observed the behaviours of the participants in a manner that did not disturb their usual activities during face-to-face and Skype interviews, and I was empathetic if they talked about issues that caused them distress, although participants reported no major distressful incidents in this research.

Participants were advised they could withdraw from the study at any time and/or had the option to choose not to answer any questions, which made them feel uncomfortable. Also, at any given time, the participants were given the choice to stop or pause the interview and they could also skip any questions that they did not want to answer. No participant chose to opt-out of the study after they agreed to participate and also no participant chose not to answer any question.

Assurance was given that personal and identifiable details would not be shared with anyone beyond myself and my supervisors. Confidentiality and trust of the participants were further maintained by assuring them that their responses and identities would not be revealed to any third party. A code was assigned to every participant to avoid using the participant's name. Starting from the first interview, the codes are arranged, as INC1, INC2, and so on. Thus, no identifiable information is revealed in the study or any publication. A few participants were concerned whether any identifiable information would be published or seen by a third party. When they were informed that codes would be used instead of names, they were satisfied.

Participants were also given the choice to be emailed the transcript to confirm whether the transcribed interview was correct. They could add and/or delete information. Only two participants made changes to the transcripts, and these were to correct grammatical errors. Participants signed a form providing authority for the release of the transcript (see Appendix H).

A third party was not involved in data transcription, so participants were anonymous. Transcribed data was safely stored in a password-protected drive and consent forms signed by participants were kept in locked drawers. Therefore, the confidentiality and anonymity of participants were well-maintained throughout the

study. Post-study completion, all records will be destroyed as noted in the ethics application.

As mentioned in the introduction to this section, full ethics approval from the Human Ethics Committee at Massey University was obtained for this study. All the above-stated information was provided to the ethics committee in the ethics application form. The committee reviewed the application and requested additional information. For additional information, the ethics committee required the request for participation (see Appendix A), which was later shared on social media and sent to my personal contacts to be shared with their network, the three vignettes written on belongingness, uniqueness, and the balance (see Appendix D), and the email sent to IT groups (see Appendix I). Thereafter, full ethics approval (see Appendix F) was provided (approval no. NOR 18/17) to conduct the study.

4.5 Summary

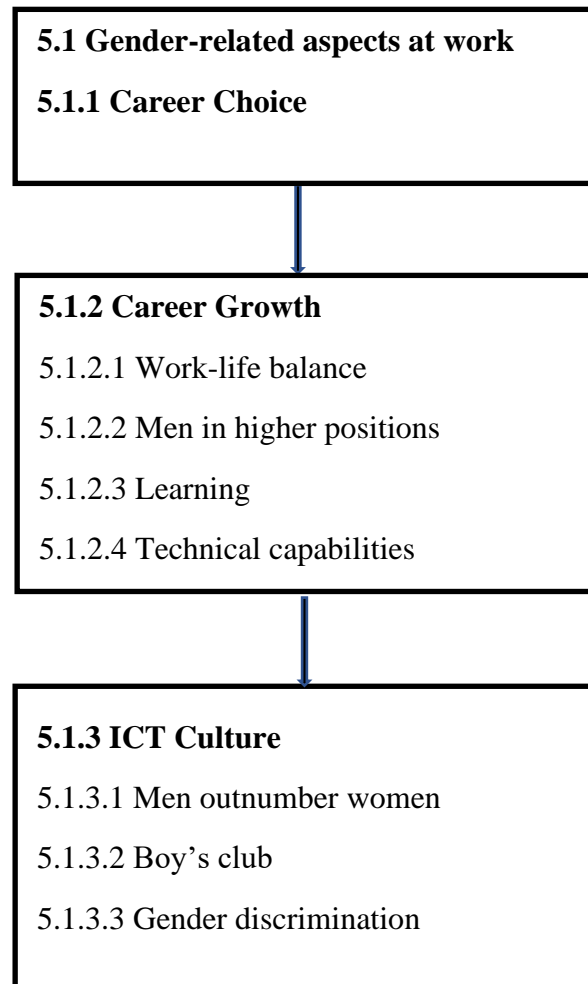
The research design and methods of this study were chosen with two aims. The first was to provide an in-depth understanding of work group inclusion of women ICT employees. The second was to contribute to theory by extending ODT. The research questions were answered by studying how women ICT employees experience and perceive work group inclusion, and how women ICT employees view the relationships between inclusion, belongingness, and uniqueness when working in a work group. A semi-structured interview guide (see Appendix C) was employed to collect data. Thirty-six interviews were conducted, and they provided rich and thick data about individuals' experiences, perceptions, and views of work group inclusion and also included information about the gendered experiences and their impact on inclusion. The findings were derived by analysing the data thematically, using NVivo 12. The

findings related to the research questions are provided next in Chapters Five, Six, and Seven.

Chapter Five: Work Context and Gender-related Findings

5.0 Overview

This is the first chapter of the three findings chapters. The findings chapters present information based on the 36 interviews conducted with women ICT employees. All 36 participants were based in New Zealand and had worked in their respective organisations for between one and 10 years at the time of conducting the interviews. This current chapter provides a career/work overview of participants and their gender(ed) experiences. Chapter Six presents participants' experiences and perceptions of work group inclusion, and Chapter Seven presents the findings related to relationships between inclusion, belongingness, and uniqueness. In each section, the themes are presented, and the explanations are supported by participants' quotes. In this chapter, the findings are extended by delving into their meaning and importance.

Figure 5.1*Chapter Overview***5.1 Gender-related Aspects at Work**

This section gives a view of the gender-related aspects that influence participants' experiences. While the intention was to study individuals' experiences and perceptions using ODT as the theoretical lens, it was noticeable that in the ICT profession, factors in addition to belongingness and uniqueness come into play regarding inclusion. The following section begins by explaining the participants' career choices and then moves onto their career growth in ICT and then discusses ICT culture.

5.1.1 Career Choice

When participants were asked about their career history, it was noticeable that most of them had not chosen ICT as a career. They discussed how they eventually moved into the ICT field.

Although I expected the 'reasons to choose ICT as a career' to fall into the three main categories given by Crump et al. (2007), willingly choose, naturally transfer, or serendipity, there were other reasons for women to choose ICT as a career. Some participants had not considered ICT as a career as they had thought that it was a man's profession. Some had been influenced and/or guided by friends, career advisors, and recruitment consultants to take up a career in IT. Participant INC34 explained:

The last year at high school, I made a good friend. He was already doing computer engineering and he showed me how to code. Seemed very interesting. So, when I did my Computer Engineer exam, I got accepted and that's how I started as a computer engineer. Back then, I didn't see women in IT. (INC34)

Participant INC31 described how her brother's experience influenced her to study IT and how she succeeded thereafter.

I was going down the medical path. I fell into IT very organically because I like creativity and everything. At that time, the internet was taking off. I got a Bachelor's in Philosophy, which was like an open platform. My brother went to do his studies in Sydney. He was doing IT. IT was coming up. He said, "Why don't you do web designing?". Not many girls were into IT. I thought "Ok". I just loved it because it was really interesting, it was creative, it was new. I love

computers. It was not like I had a passion for it, but I was good at it. While I was studying, I started working in the industry as well. So, getting a real experience. Then I got an opportunity to become a change coordinator and I worked for a couple of companies. I started studying for CCNA. From there, it just took off. My manager once asked, "We are doing this project, would you wanna help us out?". I just kept saying yes to things. I got more and more into projects. I didn't really want to be technical. I wanted a bit of both, Admin, Management. Since then, it's just gone up and up. (INC31)

Some of the participants willingly chose the field. They chose to study ICT and joined the ICT sector as a result. INC24 explained:

I took a Bachelor's degree in Computer Science and afterwards I started my software development career specialising in Java. Then, I worked in some other companies in the Philippines and then my experience went up. Here, in New Zealand, I'm a Software Developer. (INC24)

Some participants naturally transferred by starting their careers at lower levels. Participant INC10 described her career progression as below:

I got my job in this organisation as a secretary. So, I did that for a couple of years in Wellington. Then my husband got a transfer to Auckland, so we moved to Auckland. Got a transfer in the same company and I was an assistant to the CFO. That was a change for me working with the spreadsheets and working with the partners. Did that for about six months. The team was quite old, I was young. They weren't my cup of tea. Then the CEO and the HR manager, asked if I could move in the firm and they said, "You'd be great in IT". The CIO was looking for an assistant and I thought that sounded so

boring. I got on really well with the IT team at that time, but I thought I didn't wanna do IT. Then I thought I should give IT a go. So, I went in there. Best thing I ever did. Haven't looked back. That was 2000. I was learning coding with our developers. I learnt quickly. Then they moved me into a Systems Administrator role. I just learnt everything I know on the job. (INC10)

Other participants fell into ICT as a result of serendipity. INC26 described how ended up in IT after having started her career in another field:

I started as a consultant in a consulting company and then every two years or so I steadily increased my position until I reached seniority level. I didn't have an IT background. Previously I had no IT-related studies. But, I ended in IT. I retrained and did a few papers in IT, which was really interesting. My last position was a Solutions Architect. I held that for over five years and now I'm tech lead. I've gone through four different companies. (INC26)

Another important finding was that some participants had not chosen a particular job within ICT, such as networking, because they could not travel to various places. Participant INC11 had a career in IT networking previously, yet later decided to become a lecturer since she wanted to avoid regular travelling:

Originally, I was supposed to get into IT networking and do network administration. I have to go out to different sites and fix networks and work with wires, and things like that. So, I changed my direction to software development because it's sitting in one place doing your work. Then I got into teaching and lecturing, which is still better for me. (INC11)

It was noticeable that participants chose careers that matched their requirements. They are qualified and skilled to do ICT jobs, yet occasionally, they

chose different paths within ICT to avoid inconveniences of their personal lives, such as travelling.

5.1.2 Career Growth

Participants discussed key factors that influenced their career growth in ICT: Work-life balance; men in higher positions; interest to learn; and technical capabilities.

5.1.2.1 Work-life Balance. It was also evident from data that some participants (25%) did not want to take up leadership positions because they were more concerned about other commitments, such as family and children. “Before having a child, my work was always my priority, but now work is 40% because I always have other things in mind. I have to take care of other things and I have other priorities” (INC18). This was an interesting point to note that while there were women who made their professional careers a priority, there were others who believed that they were unable to take up more responsibility in terms of work simply because they made their family a priority. Participants INC8 and INC13 respectively explained how their work was affected by their family situation:

Being a mother, having kids, and trying to balance the work-life and not being there extra hours. If a child gets sick, you are the one who takes them to the doctor. At some stage, I had to lower my jobs and the roles that I picked in terms of responsibility until the kids grew up. I believe organisations should be more inclusive in this aspect. (INC8)

INC13 stated:

I guess my age and family situation have been barriers because they also prevent me from being able to apply and accept roles. I have my son to take into consideration. (INC13)

Although they enjoyed the work they did, they did not want to increase their level of work commitment due to personal reasons, such as managing family responsibilities. Primarily, women were expected to look after children and do household chores. The tendency to view women as homemakers limits women's career advancement. INC8 spoke about how women often did not take up challenges simply because they were reluctant to take additional work-related responsibilities due to their personal commitments and as a result, men were provided with more work opportunities. INC8 suggested organisations to be more flexible when it comes to women since they attend to family matters more than men, and according to her, flexibility promotes inclusivity.

Another point made by a few participants (17%) was that maternity leave made them miss good opportunities in terms of their professional careers. INC3 stated she had taken maternity leave for a year when her first baby was born and after her return, she noticed that she did not get a pay rise as she had been on leave. Further, participant INC3 also explained how developments in technologies during her maternity leave left her a step back, and how she had to work harder to progress in her career:

I had a baby and went on maternity leave. Only benefit is that the employment is continuous. But you still miss out because technology is changing rapidly. If you are not around for a year, then you don't get the pay rises and things. You don't get reviews for the year, and one year after it's like kind of you have gone back three years in your career. It's not visible, but you need to catch up.

Nothing is being facilitated. The only thing is timing is flexible. But because technology and everything is changing so rapidly, it's hard. I found that I was behind, and I had to put a lot of effort to get back to the place, and then to start progressing from there. (INC3)

Participants' views suggest that although they aspire to be leaders, they give priority to their families. Such decisions make them miss advancement opportunities as they lag behind developments in technology. Concurrently, organisations do not take the initiative to support women who return after maternity leave.

5.1.2.2 Men in Higher Positions. In the ICT sector, the majority of senior positions are held by men. Women were mostly engaged in low and middle-level employment. INC5 described the situation in her organisation "In the entire organisation, there are only two or three female managers, and the rest are men. You will see more men in our organisation than women" (INC5). Participants INC14 and INC30 explained their view on this as below:

I have seen instances where female colleagues, this is previous employers, may There are around 15 of us. have promoted some women later. In my opinion, they should have been promoted sooner. Again, you don't know where the 'whys' fall. There might have been personality clashes that caused it to be late. (INC14)

Participant INC30 added:

Mostly men [in the organisation] and women are at the very early stages, at the lowest level. Everyone above us is male. I feel that women are less supported when it comes to promotions. We don't receive any guidance when it comes to promotions. Overall, I think these are signs of exclusion. (INC30)

It was notable that mostly men held higher positions in ICT. Most participants claimed that women were recruited, yet not promoted to senior roles. Participants also highlighted that they lacked proper career guidance. The negative experiences indicated exclusion to some participants. When asked about obstacles to career growth, participant INC12 had quite a different experience in her organisation:

Women don't have problems with regard to promotions in this organisation. Ours is a sales organisation. So mostly we have women in managerial positions, in leadership roles and all. (INC12)

The situation differs from organisation to organisation. Yet, the fact remains that in many organisations, the participants were not offered senior positions. This experience makes an impact on the inclusion of individuals.

5.1.2.3 Interest to Learn. This theme was generated because it was notable that many participants were keen to learn and advance their knowledge. "A year before last, I retrained and did a few papers in IT, which was really interesting" (INC15). Participant INC11 stated:

Now I'm publishing e-learning papers and active learning and different kinds of learning and technology. (INC11)

Participant INC10 shared her experience:

That was 2000. I was learning coding with our developers. I learnt quickly. Then they moved me into a Systems Administrator role. I just learnt everything I know on the job. (INC10)

These participants were interested to learn more to perform their job better or to move to a higher level in the field of ICT. They improved their skills and knowledge even while working on a full-time basis.

5.1.2.4 Technical Capabilities. While women's technical capabilities are doubted, it was noticeable that participants (52%) took pride or interest in doing technical work. Participants INC24 and INC27 explained how they preferred the technical side of ICT instead of the management side of it.

Of course, I want to get promoted technically, not as a manager. I'm ok with managing people, but I want to be in the battlefield. I don't enjoy managing, playing the role of director or something. (INC24)

Participant INC27 said:

Yeah, I'm pretty good at it. I didn't think I could be a technical leader. I don't know any technical leaders that are women. So, I thought I was not good enough for it. Now I really like to be technical and also in charge of a team. (INC27)

There are two paths that an ICT employee can normally take when deciding the future of their career; managerial or technical. Some participants stated they did not wish to take leadership or managerial roles as their interest was in technical work. They preferred to take up leadership roles on the technical side instead of the managerial side. A drawback they faced was that the more senior the role, the less technical it became. Participants INC18 and INC33 stated how they prefer to grow technically:

No, not really, I don't like that kind of job [managerial]. I prefer to do technical work more. I enjoy doing more technical work. I wish to improve technically, but I don't wish to manage a team. (INC18)

Participant INC33 added:

I used to [have leadership aspirations]. I definitely used to, but I realised a while ago that I wanted to stay technical. I could be a technical manager, but the higher the management, the less technical you become. (INC33)

Women are eager to learn new skills to be more technically competent. Some are willing to stay at the same level in their job in order to be more technically equipped.

5.1.3 ICT Culture

Participants discussed the key factors related to the ICT culture that influenced their experiences in the work group: Men outnumber women; boy's club; and gender discrimination.

5.1.3.1 Men Outnumber Women. As discussed earlier in the literature review (see Section 3.2.2), the ICT field is mainly dominated by men. In most organisations, men outnumber women. This point was supported by the majority (94%) of participants during the interviews. Participant INC9 described her experience:

I've been in the industry for nearly 20 years and I have to say it has traditionally been male-dominated. A number of times, I've walked into the room and I've been the only woman. More recently now, there are a lot of young women coming through into the tech industry and into the work that I do. I feel like I'm the older woman now. There has been in some of the organisations, an absence of women. (INC9)

The participants admitted that their work groups mostly consisted of men. Participant INC16 explained the gender composition as, "80:20. 80% men and 20% women" (INC16). The number of women in the work groups was limited and some

participants admitted that they were the only women employees in the group. Participants INC18 and INC26 described their work groups as follows:

We are five in the team. We have been together for 18 months. Two women and three men. Previously it was more men. When I started work, it was just me. All the others were men. (INC18)

Participant INC26 said:

There are around 15 of us. Four girls and 11 boys. The majority are men. (INC26)

On the other hand, due to it being a male-dominated industry, two participants stated that being a woman had been advantageous. “I feel like we are quite valued as team members and they are trying to increase diversity in the team. That's why the last three hires have been women” (INC30). Participant INC18 explained her positive experience when applying for jobs in New Zealand.

It took me one month after I started applying for jobs. I think women find jobs easier here [New Zealand], even in Iran it's the same. Maybe because they get less [applications]. (INC18)

For these participants, their gender has been beneficial. Organisations that attempt to increase diversity in the workplace result in more women being recruited. These two participants believed that the smaller number of women applicants improved their chance of being recruited.

5.1.3.2 Boy's Club. The male-dominated ICT industry is widely known as a ‘boys’ club’ for its predominantly male behaviour. Participants acknowledged the boy’s club operated in their experiences of ICT.

At the end of the day, guys would go for a drink or whatever. If you didn't give in to the drinking culture, you weren't social. I was anti-social in that way because I don't drink. I went out and had an orange juice, but every day, that's not what I wanted to do. I wanna be with my family. It was a little difficult to connect because I wasn't in the boy's club. So, initially, I was not included. (INC31)

Participant INC31 further explained the difficulties she faced:

Yeah, at times. I feel just like a work part of the group. I don't feel like the social part of the group. The things they do are more manly. I don't wanna go pinball shooting or go for beers. It's not something that really interests me. I mean I do things, but for me, it's not really what drives my boat. (INC31)

Mostly, women are expected to conform to traditional practices in the ICT field. Some of these were after-hour gatherings, such as meetings at pubs, which include alcohol and discussions that mostly interest men. Even though some group members are unable or unwilling to attend, these practices still continue.

5.1.3.3 Gender Discrimination. Participants explained other types of difficulties faced by them, such as discrimination. “Me as a girl teaching a classroom full of men. The challenge was that male students were like, "Are we learning something from her?". That was initially the thing for me” (INC11). Participant INC1 described her experience as follows:

So, managing men especially from Eastern cultures is difficult. Sometimes I find that they don't accept female managers. I can see on some occasions a lot of resistance. If I try to pass a decision, or if I try to take some actions, I find them to be very sensitive. Especially, if they make mistakes and I try to correct

them. I do have some difficulties with this aspect sometimes. I find people who come from western cultures different. These type of issues are less with them. Although you do have challenges with regard to your opinions, or views about things. They do have some perceptions about female managers, but in a different way. (INC1)

The participants claimed that male colleagues did not respect women as much as they respected men, and women's knowledge and skills were being discriminated against by others merely due to gender. Participants were being discriminated against by some individuals who belonged to certain cultures or ethnicities. Often, at meetings, men underestimated women's abilities or made harsh comments. Participant INC10 shared her experience during the interview.

If I think back to my early days in IT, and the predominantly male team, they were pretty sexist, inappropriate in a work environment, telling rude jokes, and looking up stuff on the internet. I didn't find it offensive 'cos that was the era. It wasn't directed at me. They didn't make me feel bad. Well, there was one guy with who I had a bad experience within the IT team. He is no longer here. This was the guy who was doing a part of my role, projects before I took the governance role. I disagreed with him on something so, I said to him "I don't think that's right. We should do it this way". He goes like "Oooh are we touchy? Is it that time of the month?". I said, "Excuse me!". I just went red. I was so embarrassed. At that time, I felt, if a woman has an opinion or wants to disagree with something, they were automatically going to assume that you've got your period, which I just thought was so wrong. Out of all the guys, there was just this one guy. He would often make comments that were just wrong. Otherwise

for the most part no! So, I've never felt that I have never been held back because I am a woman or sexual harassment or anything like that. No! (INC10)

Overall, the participants shared various examples of discrimination. An interesting point was that some participants were uncertain as to why they had to face difficult situations. They admitted that they did not know the reasons behind their negative experiences as INC20 stated, "Throughout my whole career in IT, I think there's been a lot of barriers. I'm not exactly sure they are gender-related" (INC20). Participant INC14 shared her experience and she was also uncertain about the cause of such negative treatment from other parties:

At times, when I applied for positions, the recruitment consultant had some comments like "The team's a bit blokey, not sure whether you'd fit in". You don't have the opportunity to ask what they mean by that. I'm not the only woman, but I'm an older woman. Age is also an important factor when it comes to team inclusion. It could be that they are worried among guys who are 20 or 30 that I have problems fitting in. You can't get clarifications. You don't know what the reasons are. I'm still here because we are a heterogeneous group. There's a range of young to older people in our team and I actually think that's what makes it strong. I can possibly understand if you have a team of the same make-up, the same sort of people that you fear introducing one person outside of that dynamic. (INC14)

For some participants, it was obvious that they were discriminated against due to gender and for others, it was not certain. It was notable that there was no opportunity for women to question why they were being treated in a certain manner. They face

many difficulties at some point in their careers and the fact that they were women seems to play a role to a certain extent.

A different perspective was brought in by a transgender participant. INC32 admitted that the kind of discrimination she faced was mainly due to her gender. She described her experience supporting the idea that gender discrimination exists in the ICT sector.

Coming from the transgender perspective as well, I think I'm lucky to be able to see both sides of the coin. Once, I had a lot of respect, people would listen and now it's not so much. It's really noticeable. Probably, I can see it a lot clearer than most people can. A few years back, when I changed over, they said to me "How are you finding it?". I said to them, "I'm actually discovering that there's a lot of people who think women are really stupid, and they treat them that way and I'm really surprised, I didn't realise how bad it is". The way I've seen things change. From a person who can walk into a room and command the audience to a person who walks into a room and appeals to an audience. (INC32)

Hence, participant INC32 was certain about the influence of gender in shaping women's experiences in ICT. Women's abilities and authority were often questioned.

5.2 Summary

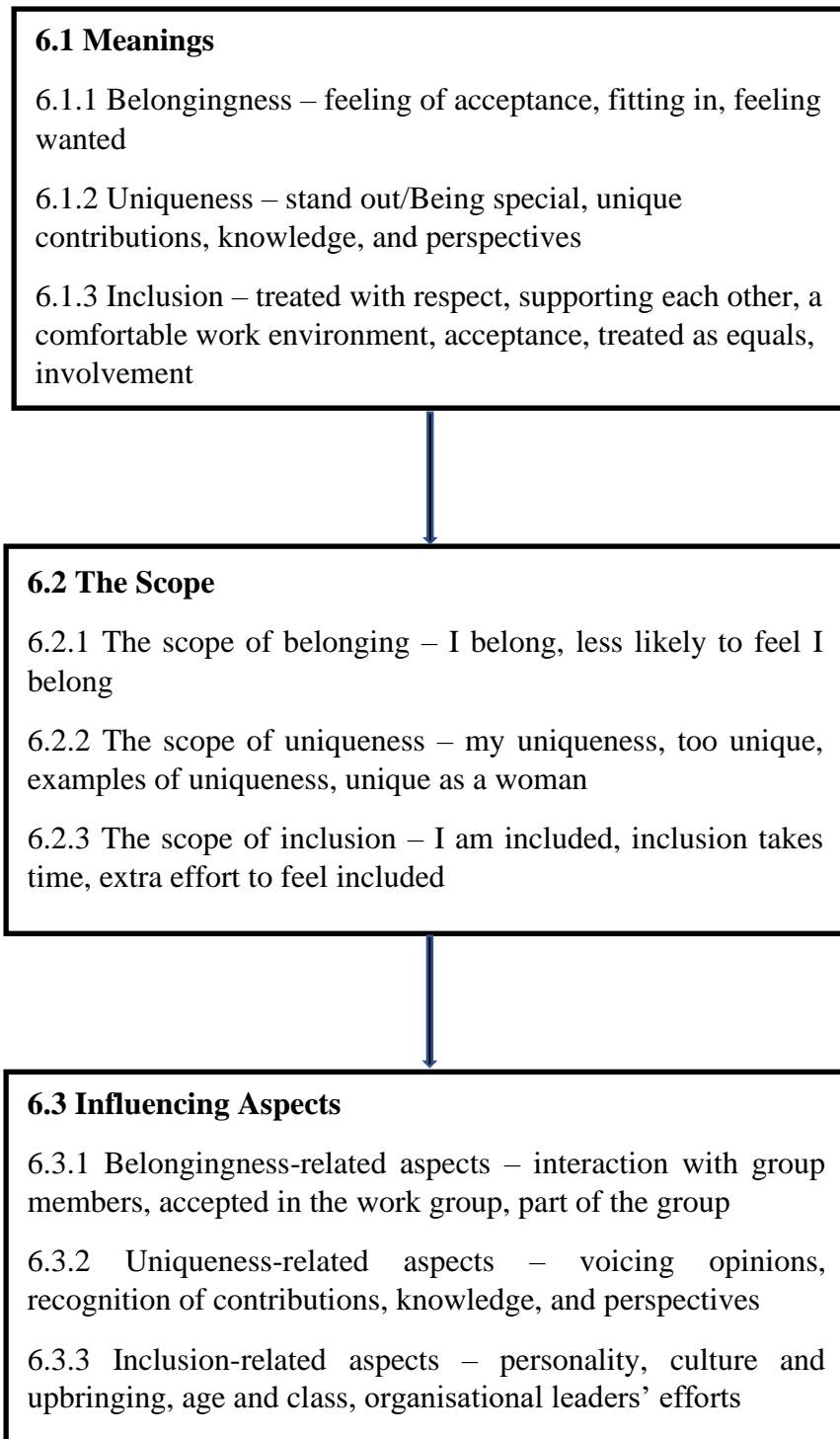
This chapter provided an overview of participants' work context and gender-related experiences in the ICT profession. It covered aspects, such as what made participants choose the ICT profession, what factors influenced participants' career growth, and what barriers they found in the ICT culture. It was notable that barriers to participants' career growth and the ICT culture influence participants' inclusion experiences. The next chapter, Chapter Six, covers the inclusion experiences and

perceptions of participants related to belongingness and uniqueness aspects and presents a more focused discussion of inclusion.

Chapter Six: Experiences and Perceptions of Work Group Inclusion

6.0 Overview

This is the second chapter of the three findings chapters. This chapter presents the participants' views of work group inclusion while providing information related to the first research question, which is: How do women ICT employees experience and perceive inclusion in their work group? This question was designed to explore women ICT employees' inclusion experiences and their perceptions. The experiences and perceptions of the participants are presented in three different sections. In the first section, the meanings associated with belongingness, uniqueness, and inclusion, according to participants are presented. Next, the findings related to the scope of their experience is provided and in the final section, the aspects that shape their experiences and perceptions are discussed. The explanations are supported by quotes from participants. In all three sections, the belongingness and uniqueness-related findings are presented before the inclusion-related findings. This is in line with the sequence in the discussion chapter, Chapter Eight, enabling discussion of the findings of belongingness and uniqueness in relation to inclusion.

Figure 6.1*Chapter Overview*

6.1 Meanings of Belongingness, Uniqueness, and Inclusion

This is the first section of this chapter, that presents the meanings associated with belongingness, uniqueness, and inclusion. Participants were asked to describe their interpretation of each term, such as inclusion, belongingness, and uniqueness.

6.1.1 Belongingness

Participants explained their understanding of belongingness using their own terms: Feeling of acceptance; fitting in; and feeling wanted.

6.1.1.1 Feeling of Acceptance. Some participants used the term ‘acceptance’ when defining belongingness. “It means being accepted as you are and how you are for what you are” (INC31). Participant INC1 also described belongingness as acceptance:

Again, it's acceptance. You belong to some groups or community or so you feel part of this group. (INC1)

For women in ICT, acceptance from others was equated to their feelings of belonging. So, for women, belongingness meant acceptance in a male-dominated profession. Because this is a male-dominated profession this meant male acceptance, in the main.

6.1.1.2 Fitting In. Another theme that was generated was fitting in. For some participants, belongingness meant fitting in with others in the work group for the group to function well. INC6 described it as, “Where you fit. Your natural home. It's a strong connection to feel like you belong”. Participant INC8 also supported the same idea as follows:

I think when you belong to a place, I wouldn't say they can't live without you. but there is a space for you there. You can contribute, you add value. When

you're sick for three days, you're missed. Belonging is really fitting in and having space in a big heart that you can fill. (INC8)

Fitting in referred to connecting with co-workers at the group level and feeling that there is space for that individual, and that their particularly individual skill and personality set was a good match with the team. Fitting in as a theme reflects the women's desire to be involved in the group activities. Participants sensed belongingness when they 'fitted' into the work group.

6.1.1.3 Feeling Wanted. Other participants described belongingness as a special feeling, which made them feel wanted by other group members. "What I do, which makes me feel important and, which makes me feel wanted in the team" (INC12). Participant INC24 also explained this concept in a similar way:

If you belong to something, that makes you feel special. It's not just included. Belonging for me is a deeper word. There's heart and passion for it. If you go walking away, someone or the whole team will come to find you. (INC24)

These participants defined belongingness as meaning other group members make them feel special. It seemed as if belongingness was very important for these participants.

6.1.2 Uniqueness

Participants explained their understanding of uniqueness using their own terms: Being special/stand out; and unique contributions, knowledge, and perspectives.

6.1.2.1 Stand Out/Being Special. A common view among the participants was that unique individuals meant individuals who stood out from the crowd. Some participants admitted that they preferred to stand out in their work group. "I like to

stand out from the rest, that's how I do business anyway. I'm very responsive. I think anybody that does that, stands out because I don't see thoroughness in people anymore. Maybe I'm distinctive in an unusual way” (INC16). Participant INC36 said, “When I was younger, I had green hair. I would wear a studded collar and cufflinks. I wanted to stand out” (INC36). Participant INC24 and also stated the same:

I believe that if you choose to stand out, you can stand up and lead. I like that idea, but I don't mean like being in the spotlight. I like being unique. (INC24)

Participants who defined uniqueness as standing out believed that it enabled them to shine among other group members and lead the group using certain characteristics, qualities, and traits. For many participants, unique individuals meant people who were capable of doing things that others were unable to do. They believed that such individuals brought something special to the table that nobody else brought. “You're different or it's not easy to find the same overall. It's not something that's common. It's hard to find” (INC34). Participant INC6 described her idea as follows:

Everybody is unique. Being something in your own right or bringing a special set of approaches and attitudes. Sometimes different to another person. People are unique, there's no such thing as a norm. In the IT industry, being unique is seen as, *wrong*. (INC6)

These participants viewed uniqueness as something notably different from others. They also referred to it in a positive way and said that they had special skills or knowledge that were out of the ordinary. Notably, INC6 pointed out that in the IT field, being unique was not appreciated because her unique experiences were not recognised by the work group.

6.1.2.2 Unique Contributions, Knowledge, and Perspectives. Most participants expressed that everyone's contributions, knowledge, and perspectives were different and unique. "Definitely! I think everyone is. Everyone's got different life experiences and knowledge, and personal plans as well" (INC13). The explanation of participant INC16 is below:

People are unique. So, everyone is unique and everyone has a different opinion and everyone has a different way of working. In my view, collaboration is getting all those positives and negatives of everybody and enabling a team to make sure that strings and wings all get put together. (INC16)

The majority of participants believed that every individual was unique. Some participants experienced uniqueness with the contributions they made to group tasks. For them, uniqueness signified making unique contributions. Participant INC1 said:

I did a lot of contributions to the department and I feel unique in that sense. If you compare my department to other departments, I feel unique with the performance and achievements I have done. (INC1)

Uniqueness was also experienced as having unique knowledge and skills that other group members did not have. Such knowledge and skills helped them to be unique among other members. Participant INC19 said:

Unique in my abilities and unique in my likes and dislikes. We are all different, but we are part of the same team and our team itself is different. It's great the way it works, and I like to be recognised for the uniqueness in my abilities and not any other way like race or whatever. (INC19)

Participant INC8 described being unique as follows:

They've got either an attribute or a skill set that is of a high standard, high quality and it's required for the business or for the project or for whatever it is to make it successful. (INC8)

Others stated that they could stand out or could be seen as special by providing unique perspectives to group tasks. "Someone who can bring something different in terms of thoughts and ideas to work. What different perspectives they can provide" (INC30). Participant INC3 explained uniqueness similarly:

I think unique for me is based on how you do the problem-solving. And how you come up with a different solution or how you look at a problem differently. That is uniqueness to me. That's what uniqueness is like, I know that if I go to a particular person in the group, he will give me a different perspective. So, I know that they have a unique way of thinking. (INC3)

Participants said that if one was able to bring in something new, it was viewed as being unique. Accordingly, every individual has different opinions that can be useful to perform work group tasks. Participants claimed that individuals could stand out or could be perceived as special in terms of their unique contributions, knowledge, and perspectives, as they were able to deal with matters in a very different way than others.

6.1.3 Inclusion

Participants explained their own interpretation of 'inclusion'. The common themes identified are: Treated with respect; supporting each other; a comfortable work environment; acceptance; treated as equals; and involvement.

6.1.3.1 Treated with Respect. In reflecting on their experiences, some participants saw inclusion as respect. "Inclusion means that when you speak, you get

heard without anyone questioning or telling you to shut up. Inclusion means you're being respected as well, there's no feeling of rejection” (INC24). Participant INC25 explained her definition of inclusion as follows:

What inclusion means to me is like being respected for whatever I do or say. Inclusion to me is answering my stupidest question even with that much respect and take my feedback with the same amount of respect. When I'm learning, I'm on the receiving end. When I'm giving back, I'm on the sender's end. I want that same respect while talking or asking questions. That's inclusion to me. (INC25)

Participants felt the need to be treated with respect at work. Respecting ideas and opinions without humiliating or rejecting them even during the learning phase gave individuals a sense of inclusion.

6.1.3.2 Supporting Each Other. Inclusion is being supported at work for some participants. Participants explained that their group members' support during work made them feel included in the group. For instance, when they had difficulties communicating with co-workers, it was a group member or the manager, who had helped them overcome the challenge. Participant INC12 recalled her experience:

Inclusion to me is all about the team support. I'll just share a small experience from my life. Before coming to Auckland, I was a software engineer. I was into development and all. I hardly had any interactions with people. It was only work, that's all, and all we used to talk about was work. It's all about programming, the languages, the coding, and stuff. After coming here, this work is totally different. I have to interact with people and do a lot of stuff with them. So, it was kind of difficult and challenging for me, but my manager, he

is really nice and he helps me to develop myself into that path. To communicate with people, to talk in terms of phrase, language, because everyone doesn't understand the IT language. For me, it was very difficult to interact with others. I should say that my manager is really supportive. (INC12)

As individuals work in a group environment, supporting each other during group tasks help them feel included. Participants highlighted that they, as women, tend to see things differently. They highlighted that women were more caring, empathetic, and less rigid. Therefore, it was important for them to be supported in the work group. They sensed inclusion when group members were supportive.

6.1.3.3 A Comfortable Work Environment. Participants associated inclusion with feeling comfortable. Some stated that women's opinions were neglected or opposed by other group members. The ability to express their opinions without other members opposing them was what these participants described as a comfortable environment, which made them feel included. "Based on my understanding, it's basically feeling comfortable with the environment around you and being included in the group you're working with" (INC1). Participant INC9 described inclusion as exclusion using an example of feeling excluded from a training session about internet pornography:

So, inclusion, does not just mean the door is open, you can just come in if you want to. So, the door maybe open, but when you actually come into the room, if there are things going on that make you feel uncomfortable, then, that's not inclusion. There was a session was about pornography on the internet. The women who went came out absolutely ashen. They said that the attitude of the men in the room of the 'nudge nudge', 'wink-wink', and the undercurrent made the women feel incredibly uncomfortable. (INC9)

A comfortable work environment makes individuals feel included. If there are discussions or actions that make women uncomfortable to work in, they do not sense inclusion. Participants also discussed factors, such as organisations focusing more on women as a positive sign towards creating inclusive workplaces. When there were more women in the work group, it made participants feel comfortable. Another point they came up with is when they do not have to filter their voice and can voice anything, it increases their level of comfort in the work group, which ultimately helps inclusion.

6.1.3.4 Acceptance. Many participants described inclusion as acceptance into the group that they were working in. “What makes me feel included is basically the acceptance of the team more than anything” (INC1). Participant INC18 described inclusion as acceptance, belonging, and being able to share one’s opinions:

Just when you feel that you belong and you can just share your opinions easily.
Then you're accepted in the team. (INC18)

Participant INC10 shared her view as follows adding that women should not be discounted due to gender differences.

So, for me, inclusion is just being accepted as part of the team and not being unduly hindered or disadvantaged because you are a woman. So, I don't expect people to go out of their way and do special things for me as a woman. I don't mind guys holding doors and things like that. Just being a gentleman. I think you shouldn't be discounted because you are a woman. We should just be treated equally and if I can do the job, then I should be considered with whoever else is applying. So, I want to be promoted or valued on merit. I don't want to be disadvantaged because I'm a woman, but I also don't want to be

unnecessarily advantaged because I'm a woman. If I can do the job, then evaluate me in line with everybody else. (INC10)

What participants meant by acceptance is not simply accepting them because they were women, but accepting them in terms of their skills, knowledge, and language. Participant INC31 said:

It means being accepted not just as a woman, not gender-based, but because of your skills and your qualifications, or your ability to do the job. It's more to do with that than a man can be better or a woman can be a better thing. Not gender-based. It's just being part of a team or group. (INC31)

Participants expect other group members to assess them based on their capabilities instead of gender. Regardless of their gender, participants want to be accepted as individuals who can perform the job.

6.1.3.5 Treated as Equals. Equal treatment was one of the themes that was generated with regard to the definition of inclusion. More than half of the participants (61%) described inclusion as being treated in the same manner as their male colleagues. “I guess inclusion is having the same opportunities as your male counterpart. Obviously, same pay equity when you're doing the same role as your male counterpart. I guess it's also about having your opinion heard and having a voice. Basically, equal treatment” (INC13). Participant INC14’s statement also supported this idea:

I suppose it is to feel that you're treated in exactly the same manner as a male colleague and the same level of seniority. Around you, you like to see that women achieve internal promotions in a relatively equitable fashion. So, inclusion is gender equality. (INC14)

Participants INC17 and INC26 recalled how uncomfortable they felt at work due to different treatments. INC17 stated:

Everyone should be treated equally regardless of gender. We have to give importance to their skills and qualifications. Not whether they are men or women. Both men and women are working eight hours, both are giving equal effort and everything. So why discriminate against women only? I believe everyone should be treated equally like the same power distance. No femininity, no masculinity. Everyone should be equal. (INC17)

Participant INC26 also shared:

Inclusion means ... Let me give you an example, if during meetings, they get engaged in male banter, it will make me feel excluded or uncomfortable; but if they engage in general chatter about family, about what you did in the weekend, it is fine. Non-work conversations that are demeaning will make me feel awkward as a woman. Also, the company should have activities that cater to both men and women together and not specifically for men and women. Also, I'm the only woman during technical meetings now, so, I don't like [it] when they treat my opinions differently or treat me differently. They should base their treatment with respect I think. (INC26)

INC34 explained how equal treatment made her feel like a part of the team:

Inclusion means to be treated at the same level. It's not good to yell at a person because she's a woman. I have seen this happening. Ideally, it shouldn't matter if it's a woman, or a man, or whether you're young or old, if you're from New Zealand or from Brazil or any other country, everybody has to have the same kind of treatment. Equality regardless of gender and everything else.

Everybody has to be heard with their opinions and respected and not mocked. The equal treatment makes me feel part of the team and included. When you are treated exactly as another being, it's the main reason to feel included.

(INC34)

The participants expressed that people should not be treated differently based on age, ethnicity, gender, or skin complexion. When every individual is treated equally, they feel included. Participants suggested that importance should be given to knowledge, skills, and opinions and not to the gender of the individual who is voicing that opinion.

6.1.3.6 Involvement. A number of participants admitted that involvement in various aspects of work defined inclusion for them. They claimed that based on their experiences, inclusion referred to involvement. “To me, inclusion is about being able to participate without any barriers-just being one of the group members, not having any barriers to any sort of participation” (INC28). Participant INC4 also supported the same point:

Having participation in the areas in which we are working. Having a fair say! They listen to your comments and they try to understand what we try to say during meetings. Giving every member proper attention, fair attention to what women are also saying (INC4)

Participant INC27 supported the idea that inclusion means being ‘invited to dance’:

Overly involved in all sorts of stuff that you do and it's like, diversity means being invited to a dance and inclusion means being asked to dance. I think it's a good way of looking at it. (INC27)

Myers (2015) distinguished diversity from inclusion using the phrase, “inclusion is inviting to dance”. Participant INC27 also used a similar phrase to describe inclusion. While diversity is a representation, inclusion is an approach that is currently used to unleash the benefits of diversity. In this sense, inclusion is encouraging individuals to be involved in group tasks. Involvement appeared to be a common theme among the participants. Involvement in decision making was one important aspect that participants took interest in. Participants wanted their opinions to be heard when making decisions. Participants INC11 and INC22 described their thoughts as follows:

I think asking for my opinions, including me in taking important decisions in the organisation, also sharing good news and bad news with me and I like some sort of transparency in the whole organisation for me to feel included. I think then I'll feel included. (INC11)

Participant INC22 said:

Inclusion means we are involved in the decision, if there are decisions to be made, or if there is a change that will affect the team, we should be included. (INC22)

Involvement in decision-making was highlighted by participants as inclusion. Participants liked to contribute to organisational tasks through involvement and sharing their opinions.

6.2 The Scope

This is the second section of the chapter, which provides findings related to the scope to which participants felt like they belonged in their respective work groups

and the scope of participants' uniqueness. Following this, the scope to which participants felt included in their work groups is provided.

6.2.1 The Scope of Belonging

Participants discussed their scope of belonging in their work groups. The themes identified are: I belong and less likely to feel I belong.

6.2.1.1 I Belong. As for belongingness, most of the participants (78%) stated that they felt they belonged to their work group. A few of them admitted that even though there were certain issues, they still felt they belonged to their group. "I totally feel like I belong. As in, they accept me for who I am. They don't discourage anything. They might not accept a lot of things [ideas] and I might agree with them, but I still feel I belong" (INC31). Participant INC16 also gave a similar statement:

I feel like I belong a lot. I make sure that we pass that feeling to everyone as well. We have a very family-orientated, collaborative approach now. Engagement, very agile. (INC16)

Although they were not given a scale to rate their scope of belongingness, some of them rated it. "Out of 10 maybe seven" (INC24). Participant INC4 also gave ratings as below:

Scale, 1-10, 10 being highest, 10 maybe (*Laughs*). So, it's like, very much. (INC4)

Most participants felt that they belong to the work group where they could collaborate with other members to perform organisational tasks. Furthermore, when asked, the participants stated that their fellow group members helped them feel like they belonged.

6.2.1.2 Less Likely to Feel I Belong. While most participants said that they felt like they belonged to a large extent, a few participants stated that their scope of belonging was low. “I felt like I belonged, like this was my second home, this was family. My second family, I guess and then in the last two years, it started to get less for me” (INC10). Participants INC27 and INC33 were of the same opinion as INC10:

I don't feel I belong. I don't feel I belong as much as other parts of my life. When I go to work, I feel like "I shouldn't be here". I feel as if I belong more in other places. (INC27)

Participant INC33 said:

I do not feel I belong in my current role. If more women were here, I'd be more connected with them and feel as if I belong here. (INC33)

Those participants who admitted that they did not feel like they belonged to their work group, discussed how uncomfortable they felt with other members' behaviour towards them and how they did not feel like going to work. Some of them were comfortable with their work group members and due to a change in circumstances, their views had changed. These included a change in the top management or moving from one work group to another.

6.2.2 The Scope of Uniqueness

Participants discussed their scope of uniqueness and the themes identified are: My uniqueness; too unique; examples of uniqueness; and unique as a woman.

6.2.2.1 My Uniqueness. In terms of the scope of uniqueness, some participants gave high ratings explaining that they valued their uniqueness. Participant INC17

rated how unique she would like to be by rating her score eight out of 10 and explained:

I would like to be very unique from others. I'm teaching myself to be unique. I should be better than other people in my team and I have to show my boss that I'm unique. I can do it. I'm also a talented person. I just want to show it because my boss considers other people better than me because they all belong to the same country [same ethnic group]. I want to prove to them that I'm unique and I can do it. (INC17)

Participant INC25 explained her thoughts:

Obviously, 10 out of 10. Definitely, over and above everyone. In today's tough market, if you are not that unique, then you can be knocked down very easily. Who doesn't want to be in a good position in terms of your job? (INC25)

Others rated uniqueness quite low stating that it was not important for them. Some participants preferred to be more of the same as other group members. "I'd say six. Just enough for them to recognise me, but not too much to stand out" (INC6).

Participant INC18 described her thoughts as follows:

I think I'm not a challenger. So, for me being unique is not that important. I prefer to just collaborate and communicate and get the job done. It doesn't matter if I have been unique or not. If I don't know something, I don't search for the answer to be unique to be able to present it. I first ask others. That's my personality. Two, I don't want to be distinctive. I just want to do the job. (INC18)

Some participants were perplexed at the thought of being different in the work group. The belief that most participants expressed was that it was difficult to be unique, as society expects individuals to be the same. Therefore, the next theme was generated as a result of the statements of such participants.

6.2.2.2 Too Unique. It was clear that participants (59%) were not comfortable being too unique in a work group as they felt that it reduced their chance of blending with other group members. “Being super unique is like pulling yourself out of the majority, but blending is more of removing your individuality to be able to get in” (INC24). Accordingly, participants stated that other members did not appreciate work group members’ uniqueness. Participants felt that they were excluded if their uniqueness was too high. Participant INC10 explained:

I think that when you're unique, you're an outsider. Sometimes it does, but the majority of the time “No”. If you have an in-group and an out-group, I find that I'm often on the out-group because I am different because I don't think like or agree with what everybody else is saying. I don't agree with the status quo. So, I'm constantly pushing the boundaries. I'm looking to do things differently. Because I care about the quality as well. Most people don't care about quality or consistency. They're happy just to go along. I don't feel that being unique in my case, maybe in this organisation, helps me be included. If I were agreeing with everything that was happening or being done or being said or not being done or anything like that, then yes, I'd be more likely to feel included, but I'm the person who is pushing to do things differently and to raise the standard. I don't feel that that helps inclusion. (INC10)

Similarly, participant INC11 stated that her different interests were not encouraged by the current work group due to genuine reasons.

At times, the way that I express myself doesn't fit into that team because half the time, the team says, we are just a teaching institute, we're just teaching students, we don't need to come up with the scientific research and all that. But I have my personal aspirations within the work environment. I have to do research. I try as much as possible to link it to the organisation. Just because I'm interested in medical education, I can't tell these people to fund me for a medical education conference. I will try to channel my uniqueness in such a way that I still have that uniqueness of research within me, and I can go to different environments. If I work in a healthcare organisation, then I would write papers about healthcare and IT. Since I'm in education, this whole team and this whole area of belonging has channeled my uniqueness to the particular subject of the team. It's not like I'm fighting for a balance, but that balance is being created by that environment that I'm in. The balance between unique and belonging that's being created by the team, because if I overexpress my uniqueness in that team, then I will not be able to survive there. I will have to go to an organisation where my uniqueness can be expressed equally. (INC11)

Individuals preferred to assimilate with other group members as they did not want to look too different from them. They suggested the term, 'unusual' rather than 'unique' since they thought that it was more appealing. It was plausible for them to think in this manner, as some of them considered uniqueness to be 'exceptional'. Some participants felt that unique individuals were exceptional individuals. "I guess it means singular or outstanding. Basically, different from everything else in the field" (INC15). Participants INC32 and INC36 supported this idea saying, "One-off or

something that's not commonly found” (INC32) and “One of a kind. There's nothing else quite like it” (INC36).

Only a small number of participants shared such an experience in uniqueness where they perceived unique individuals to be very different from others. While they perceived such individuals to be exceptional in organisational tasks, they thought that it was difficult for exceptional individuals to blend in with others.

6.2.2.3 Examples of Uniqueness. When participants were asked to describe how unique they would like to be, a variety of perspectives were expressed. Participants explained their own ideas as to how they would like to show their uniqueness. INC26 identified her international experience as her uniqueness. “Yes, I guess so. In my team, I've got more international experience than others. So, I bring that kind of unique background into the group, different ethnicity, more experience with working with different cultures, nationalities” (INC26). Participant INC3 explained her uniqueness in her own words:

I think this is more about how I can make my work better quality and easy for me to do as well. Instead of following the exact same procedure that everybody else is trying. If I know that I can do it in a different way it will be easy for me. It will be quick for me as well and it will be more beneficial for me and for the organisation. (INC3)

Some participants preferred to apply their unique talents and experience to organisational tasks while others focused more on presenting themselves in a different manner. It was noticeable that individuals wanted to show their uniqueness in some way. A few participants discussed how their looks, such as different hair colours (e.g., having green hair) and outfits made them stand out from the rest. Similarly, some of

them had collections of certain things like cartoon characters on their desks only to show that they were different. “At work, I collect ‘Hello Kitty’. I’ve got a whole lot of Hello Kitty and a whole load of stationary on my desk. My desk is very different. I don’t know if that’s intentional or not” (INC28). Some participants wanted to show their uniqueness at the workplace while others thought being unique was not appreciated by fellow members.

6.2.2.4 Unique as a Woman. It was noticeable that being a woman in the ICT profession was a unique feature. “I don’t know the exact statistics, but I think it’s possibly 5-10% of people in ICT are women. So, it’s unusual rather than a one-off” (INC14). Being women, the participants were able to apply their feminine qualities to work tasks, such as being empathic. Participant INC22 shared her thoughts:

As a woman in the position, we are always customer-focused. We are not just doing technical things. We always think beyond, what the customer would like. Even on top of the requirement. We always put ourselves in the customer’s position. That’s what makes me unique, I guess. (INC22)

Participant INC16 expressed her view:

I feel I’m very unique. As I said, I was one of the only women. Now, I don’t think I am. There are lots of other women in the industry who are very similar-minded and focused and driven for diversity. More women in technology. I don’t feel very unique anymore. (INC16)

The participants stated that the number of women in ICT has increased over the past years. However, being a woman was still considered a unique feature, as they are still a minority in the technology field.

6.2.3 The Scope of Inclusion

Participants discussed the scope of their inclusion in the work group. The themes identified are: I am included; inclusion takes time; and extra effort to feel included.

6.2.3.1 I am Included. Overall, the participants spoke about the work group environment generally being inclusive but went on to highlight some instances when they felt less included. When asked whether she felt included, INC12 responded, “Yes, I do. I have never felt any discrimination of any kind” (INC12). Some participants explained their scope of inclusion as, “high” or “very included”. A few participants also admitted that they felt included when there were more women in the work group. Participant INC28 expressed her views:

Very included. More so recently. Gender diversity has increased recently. We've got some more women on board at senior positions. That has definitely had an impact on inclusivity. In this organisation, any negativity is not intentional. It's never like, “You're a woman, therefore, you're excluded”. (INC28)

Some participants shared that their gender did not hinder their scope of inclusion. Participants INC8 and INC18 described their experience:

Being a woman, I think I'm included as much as a man. (INC8)

Participant INC18 added:

I feel very included. I've never felt people don't want to accept me because I'm a woman. I communicate with my male colleagues easily. (INC18)

Another participant, INC11, claimed that she did not feel included most of the time. Having said that inclusion meant asking for her opinions, and including her in decision making, she stated the following regarding the scope of inclusion:

Keeping what I said in mind, I don't feel very included to be honest. There are times when I do. You can speak up and you're open to giving your own opinions and ideas. That's always there, but in terms of inclusion, I feel like, I'm just going, doing my work and then I come back. (INC11)

Participants thought that most of their female colleagues also felt included in the work groups. Based on their observations and interactions, most of the colleagues had seemed satisfied at work. "Everybody feels included" (INC22). Similarly, INC24 supported this idea, "Everyone's included" (INC24). On the other hand, a small number of participants said there were female colleagues who did not feel included or less included. These participants admitted that there were biases. Participant INC31 explained what she had noticed:

Sometimes, I do feel like my manager is not included. Our senior management team has more men than women. My manager is one of the women, most of them are men. She feels like she doesn't get her dues as well. She is not taken as seriously or valued as the other members of the management are. (INC31)

It was noticeable that the scope of inclusion varied even in the same organisation. A few participants also admitted that while their own work group was inclusive, other groups were not:

There's another female developer and she doesn't feel included. We go out for coffee and she shares her stories. Her web team is also not great. They don't

listen to anything she says, she is quite quiet as well. She doesn't drink. So, doesn't try alcoholic things. It's hard for her, I think. (INC27)

Although the participants found the environment inclusive in general, they reported certain challenges. Participants who held senior positions felt less included due to the higher layers of the organisations mostly being occupied by men. There were fewer women at the top than on lower levels. A small number of participants reported that their work groups were inclusive, but other work groups did not include women members.

6.2.3.2 Inclusion Takes Time. Participants discussed how the scope of inclusion depended on the time they had been at the organisation. “The first year or so, I was not that included” (INC29). Participants claimed that it was after a certain period of time that one would start to feel included in the work group. During the initial period, they got to know the members of the work group, they learnt how things were done in the organisation and got used to the environment. INC3 described it as follows:

As I said, it took a while to reach there because of the size and the scale of this organisation. Until you get comfortable with everything, you don't feel included. It is quite a lot of pressure to start with. (INC3)

Participants stated that when they first started work, they felt less included. The scope of inclusion increased with their tenure in the work group.

6.2.3.3 Extra Effort to Feel Included. A few participants argued that they had to make an extra effort to make themselves feel included in the work group. According to them, this was mainly due to their gender. Participant INC6 stated the following:

Fairly included. It's quite male-dominated. So, sometimes I have to push to be included. (INC6)

Participant INC29 said:

Women have to prove themselves a hundred times more than a man. To a certain extent, it is true. (INC29)

There are mixed views about this point. While being a woman helped some of them to a certain extent to get recruited (e.g., INC30 and INC18, see Section 5.1.3 on ICT Culture), others had to work harder to be included in the ICT field. As a male-dominated field, some women employees struggled to get where they were by making an extra effort.

6.3 Influencing Aspects

This is the final section, where I present the aspects that influence participants' experiences and perceptions in the work group. Aspects related to inclusion are presented after aspects related to belongingness and uniqueness.

6.3.1 Belongingness-related Aspects

Participants described the key factors that influenced their experiences and perceptions of belongingness: Interactions with group members; accepted in the work group; and part of the group.

6.3.1.1 Interactions with Group Members. When the participants were asked the reason for feeling as if they belonged to the work group, some of them (64%) stated that their group members support each other. They said that they communicated well with their group members and that they cared for each other at work. "When you are working in a group, group means many people working together. So, it's not only about

an individual person. You need the support of others to carry on your journey” (INC4).

Participant INC11 also explained her experience as follows:

If I see another team member sad, I go to talk to her/him and ask her/him about it. That doesn't come from the organisation, but that comes from the team.
(INC11)

Another reason for participants to feel they belonged to the work group was that they connected well with each other. “We do sit together and talk and get to know each other. That's the time that we are not working on things together, but we're just having fun together. That's the time where we develop that bond” (INC11).

Participants INC34 described her ideas as well:

Belonging means I can identify with the group. I feel some connection with the group. I need to have some connection to feel like I belong to that country, to that culture or that language or organisation and some common values as well.
(INC34)

Participants believed that interactions, which they had with their group members beyond work-related matters, helped them belong. These interactions included lunch breaks, coffee outings, and other casual connections, which they developed outside of work. INC11 went on to say, “Yeah, definitely! Mostly because we have a personal connection with the people that I work with. Not just work-related, but outside also we develop that sort of friendship” (INC11). Participant INC1’s statement regarding the same point supported this:

First we are in the same office. So, sometimes we interact beyond the level of work like we go together outside to have lunch, or I try and involve myself with the team. And I feel like I belong basically. (INC1)

These interactions helped participants to understand each other well. These interpersonal connections helped them remain in the work group and participate in group tasks. It was noticeable that they valued these connections and most importantly, the informal interactions that occurred beyond work. Women as participants want to be involved in activities that strengthen their bond with other work group members.

6.3.1.2 Accepted in the Work Group. When participants were asked to define belongingness, some defined it as acceptance and participants also commented on whether they felt accepted by their work groups or whether they felt left out. The majority (81%) of those interviewed felt accepted by their group members. “I'm definitely accepted, and I've never felt left out before” (INC21). Participant INC25 was also of the same view:

No, here especially I never had that feeling [the feeling of being left out]. They hand-held me the way it was required. (INC25)

In addition to being organically accepted by others, participants also discussed how they propel it. Participants INC2 and INC11 shared their thoughts:

Yes, I never feel that I'm not accepted. Never left out. Because I always put myself there. If I'm not included, I will tell them that I have to be there. I always fight to get in not out. (INC2)

Participant INC11 added:

Yeah, I feel accepted by the work group because I try to push myself to the extent that whatever I have to do, that is accepted. Have felt left out, but that would be only for tasks that I think that I'm not good enough to do right now. So that's ok. (INC11)

On the other hand, a small number of participants (20%) admitted that they did not feel accepted by their group members and that they sometimes felt left out. “There are definitely instances where I have felt left out. I've had other places I've worked where you sort of feel left out of the group” (INC28). Participant INC17 described her feelings as below:

It's a mix of feelings. Sometimes I think, they are considering me, they are fine, I will continue here. Sometimes, I am totally disappointed because they behave very strangely. They don't even talk to me or look at me. They are busy discussing their stuff. (INC17)

Another participant felt left out due to a change in her designation. According to her, she noticed a difference when she moved into a managerial role. Participant INC10 explained it follows:

Yes, I feel accepted and yes, I have felt left out. Because I'm a manager, I do feel left out sometimes with my team because there's always that. “Manager, we won't tell them all that, we won't include them”. There's a bit of that. I bet that's normal, but when I first moved into the managerial role, I didn't expect that. Because I'd been a team member. I just thought that would continue. I was told, “Don't expect that. Expect to get no information, expect people to act differently”. I'm not like that with my own manager, but it did happen. People did start to treat me differently. It was weird. But for the most part, we get on, we've got a good team thing going on, but yeah, I have felt excluded sometimes. (INC10)

Most participants felt like they belonged if they were accepted by other group members. A few participants felt left out by other group members and in one instance,

a promotion to a managerial position has led the group members to leave that particular person out.

6.3.1.3 Part of the Group. Participants were asked whether they felt like a part of the group and whether other group members made them feel like part of the work group. Most participants expressed that they did feel like a part of the work group. “Yeah, I do. We constantly try to do some activities like team building. Everyone focuses on teamwork and all. They try to get me involved and each and every person involved. This makes me feel like I belong” (INC12). Participant INC10 described her ideas as:

Yes, I do feel part of it. Well, I work here. I feel when I'm running my projects or managing my team, yes, I feel included because my managerial style is to hear from everybody in the group and I'm quite collaborative. I like to work together. For my own team, I would make suggestions or I'll ask questions. “Could we do this differently? What do you think?”. I work that way. In my team, I feel included. It's more when I'm engaging with the broader teams outside of IT that I don't feel included. (INC10)

The participants claimed that their group members made them feel like a part of the work group. “Yes, other members make me feel part of it” (INC23). Participant INC12 also supported these views:

Yes. I have never seen any partiality or discrimination. If some information is passed on to one person in the team, it is passed to everyone in the team. That is equal. If my manager is not available in the office, he'll tell everyone, not a specific person. (INC12)

A minority of participants (21%) expressed that they made an effort to be a part of the work group. “Yeah, I guess I make myself a part of it” (INC6). Additionally, some also stated that it is their manager’s effort, which makes them feel like a part of it:

My new manager had been very supportive. I've managed to connect pretty quickly with my new team and have a pretty good rapport with them. I think inclusion is being invited when you're having morning tea. It's that conversation that you have when you're having tea. (INC29)

Some participants felt like a part of the work group solely in terms of work tasks. Such individuals did not have a connection with their group on a personal level but having common work goals and objectives made them feel part of the work group. “When you belong to some groups, or community, you feel part of this group. You have common objectives and things like that. We work towards one objective, which is to improve the performance of the department” (INC1). Participant INC20 also shared the same view:

We are part of the shared purpose. It is about that group of people who are working towards a shared purpose. (INC20)

Another important point was that a few participants (30%) admitted they felt proud to be a part of the work group. At the same time, they felt satisfied that they had contributed towards a task. “That you feel proud in saying that yes, you are the part of that group” (INC4). Participant INC4 explained that taking responsibility made her feel part of the work group and described it as:

You can take the responsibilities of both good and bad outcomes of that team.

You cannot say that every task has to end up with very good results and

everything. Setbacks are also there, but you take them as lessons learnt. You take responsibility. Yes, I was part of that team. So, if something good happens, say, "Oh yeah! I did that". If something bad happens, I was also a part of that. So, taking responsibility, taking pride in the good things, trying to learn from past experiences. That's belonging. (INC4)

The experiences of belonging depended on factors, such as how well they interacted with other group members and whether they felt accepted and part of the work group. Although some participants connected with other group members only on a work-related level, it still made them feel they belonged to the group.

6.3.2 Uniqueness-related Aspects

Participants described the key factors that influenced their experiences and perceptions of uniqueness: Voicing opinions; and recognition of contributions, knowledge, and perspectives.

6.3.2.1 Voicing Opinions. A factor that enables individuals to feel that their uniqueness is valued and appreciated by the work group is their ability to voice their opinions. When participants were asked whether their voice was heard or not, most of the participants (79%) said that their voice was heard in the work group. They said that during meetings, opinions given by these participants were accepted and some of them were implemented. The fact that their voice was heard was satisfying to some of these participants. Participant INC27 shared her positive experience as follows:

We had a meeting today and they had a problem that needed a fix. I had a solution; it was quite nerve-racking for me because I was quite junior in the room relatively. That's a good example of when my ideas were accepted. (INC27)

Participant INC19 added:

I implemented a new filing system last week. I'd given additional functionality where they had zero functionality and helped with the training. Everything that I came up with was accepted by my manager. Generally, I suppose my ideas are accepted. That means my unique ideas are accepted. (INC19)

Participants felt happy when they were consulted for opinions by other work group members. They felt that their voice was heard and suggestions were utilised in the work group. Participant INC1 said:

Yes, coming to me for consultation, involving me in most of the department matters. I don't see them consulting each other and excluding me. They first consult me and then consult others. (INC1)

Some participants' opinions, which were initially rejected by other group members were finally accepted when their group realised the importance of the opinion. "Most of my ideas get accepted ultimately I think, but it's always a struggle initially. I've learnt to be slow and gradual now" (INC29). Participant INC28 described it as follows:

Sometimes they accept my ideas. That's what they pay me for. There have been circumstances where there's been a lack of understanding about the work. They reject it and six months later, they've had to turn around and do what I said. (INC28)

Some participants shared their negative experiences as they felt that their voice was not being heard. In some situations, participants' opinions were accepted, but not acted upon and this made some of them feel as if their opinions were rejected. In other

situations, participants' opinions were rejected during meetings. "They don't want to listen to any ideas, or anything. If I say something, you're like being 'shut down'. Just do your work, don't voice stuff. I don't take it personally" (INC3). Participant INC17 shared her experience:

In this company, we hardly use tools [to test software] to make our work efficient. If we use them, we can save time. Every two weeks, we release new products. Sometimes, we are not able to finish products in time. So, the boss calls us and scolds us. So, once I told them that we could use some tools. Tools will help me to work much faster. They said, "If we can use tools, we don't need you here". My suggestion was completely rejected, but tools are commonly used worldwide in many companies and it is a very successful method. They can't understand. From the next meeting onwards, I just go, sit, observe, and listen to what they are saying. I don't talk. I'm not afraid to speak up, but I'm thinking, if they can't consider my opinion, I don't want to talk. Let them suffer. (INC17)

Another common view was that the opinions of participants get rejected due to other reasons, such as unavoidable circumstances and not due to discrimination. Participants INC26 and INC25 also supported the same idea:

When we were having a project discussion about a new process, I put forth some suggestions based on my previous experience and my team rejected them and provided some other way. We normally have these vocal discussions, so, it's nothing new when they reject something. I amend it and send it to them again. They have opinions, strong opinions until we get group consent. (INC26)

Participant INC25 explained:

Yes, many times. Since we are into testing, there are times when we don't get 100% information from the development team and we would be struggling with why the software is behaving this way. When you try to explain the misbehaviour vs the manual of specification and the actual software, they'll say, "This is the expected behaviour. The manual of specification is not updated. This is how it is". At that point, all I can do is just accept the fact because they might have a genuine reason to justify that. Those are the places wherein I gave certain feedback to tweak the software, but they'll not take it because it might include more work or might not be a required suggestion. So, at that time, the suggestions are not taken up. (INC25)

A small number of participants (10%) expressed that they had to make their voices be heard. Participants with a strong personality were able to do this better than others:

I'm quite strong-minded and I'm happy to voice my opinions. If there's a reason for an opinion I've given, and it hasn't been accepted, they give me an explanation of why. I'm quite happy to accept that. If I have a very strong opinion about something and it doesn't get listened to, then I continue to fight to make sure that it is heard, because I think there is a valid reason why it should be. (INC16)

Two participants linked voice rejection to the gender perspective. Participant INC32, who was transgender pointed out that she noticed a difference after her transformation. She realised that when she was a man, her opinions were easily accepted than when she changed over. She explained it as:

No. I think it's detrimental. Ever since I've changed over, I've noticed that things are a lot harder for your recognition. I have to be a lot more forceful in what I say before people actually take notice or listen. I've been overtalked quite a lot. I have to raise my voice to be heard. That shows my uniqueness... (INC32)

One participant claimed her opinions were rejected, but when a male colleague gave the same idea, it was accepted. Participant INC33 said:

It happened a lot lately. When you suggest something, they'd be like, "Oh no! We can't do that". A couple of weeks later, men would bring out a similar idea and they'd go, "Oh! That's a fantastic idea. We should do that". I've had that. (INC33)

Participant INC33 experienced how gender impacted in acceptance of opinions in the work group. Although it does not occur in all work groups, some individuals discourage opinions from women group members.

6.3.2.2 Recognition of Contributions, Knowledge, and Perspectives.

Another factor that contributes to valuing uniqueness is recognition. A variety of perspectives were expressed when asked whether the participants' contributions, knowledge, and perspectives to organisational tasks were recognised by their work group members. While some participants said that appreciation was shown, others felt their work was appreciated at some point although it was not expressed all the time. "My work group is quite good and vocal at giving recognition of good work and your progress. So that's not an issue" (INC13). Participant INC4 stated the following:

I believe that recognition is a kind of journey. It's not like in a meeting and I say, you have done so much and it's really nice. If I haven't sent you these

recognition statements at this time, maybe I'm going to mention them later on in one of my emails, in one of my reports. (INC4)

Most participants felt that their efforts and contributions were usually recognised. However, some gave opposing statements to the same question. Some participants (42%) felt as if their contributions, knowledge, and perspectives were not being recognised. They admitted that they had to push themselves to be recognised and that they did not understand the reason behind it. They also expressed that negative reactions to their contributions did not stop them from doing things. "Initially my talents and contributions weren't recognised. That was a bit of an issue actually, but it didn't stop me from doing it" (INC7). Participant INC10 supported the same point:

Yes, definitely, some talents and contributions aren't recognised. Over the years, I have made lots of suggestions and I think I have really good ideas. I will say how about we look at doing something like this, but often it doesn't happen because you're in a business environment and one, people are too busy, they don't see it as a priority. Two, there may not be money for it and they don't want to spend money on it. Even though I've shown that we could do things so much better. Often, I'm the lone one. Everybody else is happy to come in and just mosey on with what they're doing. (INC10)

Not being recognised made a big impact on many participants that they (e.g., INC17) intended to leave the organisation after gaining some experience. Recognising unique talents and contributions is vital for individuals. "There are a lot of times those [situations] happen. That's ok. If there's a strong force opposing it and there's a valid reason, I will understand. That's ok" (INC24). Although some participants agreed that

their contributions, knowledge, and perspectives were not recognised, they understood if there was a genuine reason behind it.

6.3.3 Inclusion-related Aspects

Participants described the key factors that influenced their experiences and perceptions of inclusion: Personality; culture and upbringing; age; social class and organisational leaders' efforts.

6.3.3.1 Personality. In addition to external barriers, gender-related and work group-related, participants were hindered by internal obstacles that exist within themselves. Forty-five per cent of participants of the current study attributed inclusion issues to their personality. According to them, the inclusion experiences and perceptions were shaped by the individual's personality. Participant INC1 stated that she had not come across a woman IT employee who was excluded by other work group members. Instead, she explained how one's personality makes her/him exclude her/himself:

I don't see women being excluded. No, I've never met a woman, or man, who is not included unless they want to be excluded. It's their personality. If they are very introverted, they can feel excluded, but it isn't a group decision to exclude them. (INC1).

Participant INC3 was of the same view about the scope of inclusion and believed gender did not play a big role in inclusion:

I think it won't be regarded from the gender perspective. It might be because everybody has their own personality. So, I don't think of it especially as women are excluded. It's more of a personality thing I would say. If somebody is not so forward and stuff. But it does take time because we have a big organisation.

For anybody new who is joining, it takes quite a lot of time to get to know what's happening in the organisation. We are 300 employees just in IT. (INC3)

Personality includes the level of confidence for many participants. INC2 felt that if one lacks confidence, she does not feel as included in the work group:

I don't know. That depends on the personality. So, if you are not confident, of course, you feel you are included. So that depends on your personality. I don't see that as a gender-related problem. That depends on the personality and depends on you. (INC2)

Participant INC8 pointed this out from her experience:

I think what drives it, is your role and your position, and your confidence. I think women sometimes don't show their confidence as much as men do. Probably don't put their hands up because they might be reluctant to take additional responsibility for their lifestyle. Because of that, men are selected. I think it's to do with how available and how much you can commit to something. I see confidence being the driver more than the fact they are included or not included on a gender basis. (INC8)

Some participants did not believe that they would be less included based on gender necessarily. Self-confidence seemed to play a major role in inclusion. Participants said that a lack of confidence in women and the assertive nature of men might be reasons for participants to feel less included or excluded.

According to participants, introversion made a difference to inclusion. The introverted nature of participants seemed to make some individuals exclude themselves from the work group. "It's their personality. If they are very introverted, they can feel excluded, but it isn't a group decision to exclude them" (INC1).

Participants INC15 and INC28 stated that women were not always excluded by other members and that they exclude themselves due to various reasons. INC15 explained:

Perhaps the other two that I work with might be a little less outgoing. It's always hard to know if someone is not included or if they would just rather be by themselves at that point. I don't think anyone's actively excluded, but whether they choose to exclude themselves might be a possibility. (INC15)

Participant INC28 also explained:

There is one person that probably feels that she is not as included or respected or taken seriously. I think a lot of that stems from her insecurity rather than her not being included. In this thing, I don't think it's particularly a gender thing. She does suffer from anxiety, which doesn't help with that situation. (INC28)

It is important to note that the need to include oneself must be felt from both sides of the group. "The team can try to connect, but if you're not connecting to her, then they're not gonna feel included anyway. It's an attitude" (INC6). Participant INC29 explained it in a descriptive manner:

I went to this talk where the speaker talked about how diversity is reality and inclusion is a choice. Inclusion being a choice means it is not a one-sided choice; it has to be from both sides. You can want to feel included, but you may not want to do anything to be included, or some people may think "All the effort has to be from that side". That has nothing to do with ICT. I'm a very inclusive person. So, I think it's also a personality type. If you decide that, "I don't want to include this person", or if the person doesn't want to make the effort to be included. I won't say that I have never felt excluded, I have felt excluded, but the fact that it has to do with if they think I'm professional or not,

I don't know. Sometimes, they don't realise that they exclude people. Sometimes, you can be deliberately excluded. Men do have their smoking conversations, which women don't. But it's not just men, women can exclude you as well. (INC29)

Participant INC29 felt that women could exclude women. She believed that building a good work relationship between two women could be harder than building a working relationship between a man and a woman. According to her, the reason is that women have more expectations from women. Through her past experience, she believed that working with women was harder and Annabi and Lebovitz (2018) support this point in their study.

In brief, a common view among the participants was that one's personality played a role in inclusion. Some participants claimed that differences between men and women, and/or gendered processes had less of an impact when compared to personality factors. Inclusion is also a choice according to some participants. That is, a person cannot expect to be included by other group members if she/he does not try to be included. The effort has to be from both sides and although ICT is a male-dominated field, women also need to be assertive in their efforts to belong.

6.3.3.2 Culture and Upbringing. Participants also highlighted that women excluded themselves due to their culture and upbringing. "Initially, I felt a little bit shy because there were so many men around in the work team. Maybe this was coming from my culture" (INC2). Some participants, such as INC2 have been brought up with certain beliefs that due to gender differences, women were suitable for certain types of job roles and men were suitable for others. That is the reason why women tend to choose soft jobs, such as teaching, or software development. Participant INC2 further

supported her statement. She explained her perceptions of how female students plan their future careers in ICT:

So, there are some female students, they study IT, but don't feel that they should do something in IT. They always feel that boys will do that because this is a technical field. They say that after finishing their studies, they may teach IT or do software development. I have seen some girls who don't like the hardware part of the computer. They think it is a man's job. It depends on how they grow up. Maybe it depends on their family or something. Sometimes it depends on their culture. According to your culture, if you are a woman, you are not suitable for technical work. I mean their culture discourages them from choosing certain types of jobs. (INC2)

Thus, culture and upbringing seemed to push some women to one side and men to the other limiting their opportunities. Mostly in women, a certain degree of fear is inculcated. This leads to a particular path and distances them from novelty and taking risky career choices. Cultural norms and beliefs seemed to hinder the experiences of inclusion for some participants. INC17 described how her cultural habits affected her interpersonal relations with her group members:

The first time they asked me to go for a drink, I told them that I don't drink beer and all that. Now they know. Now they don't even ask me, but some weeks they do ask "Do you want a Pepsi or something?" That's it. (INC17)

While socialising can be a personal preference, in this current study, it was found to be a cultural factor because it was mostly pointed out by women from other cultures, who had migrated to New Zealand. Another cultural factor was communication. Some participants expressed the belief that communication mattered

in inclusion. “In my wider work group, I would say that the women tend to be quieter. I’m outspoken. I think it’s because they are reserved that they feel less included. I’m not one of those” (INC7). Participant INC3 described her idea as follows:

I've seen some people who don't communicate well. Here, we have people from different cultures and some have very good ideas, but they don't communicate well. And I had that issue at the start as well. I was not really good at communicating my idea even if I had a clear picture in my head. I couldn't communicate and justify. So, I think communication is very important. (INC3)

Some participants were unable to interact well with their colleagues due to the lack of communication skills. Participants admitted having difficulties working with their work group members due to the lack of communication skills. They understood that it was important to communicate properly with their colleagues, but some had difficulties with the English language.

6.3.3.3 Age and Social Class. Two out of 36 participants said that age and social class were important factors in inclusion. Participant INC14 stated that age played a role in her inclusion:

I'm not only a woman, but I'm an older woman. Age is also an important factor when it comes to team inclusion. (INC14)

Participant INC30 explained how her social class influenced her experience of inclusion in the work group:

Especially in my career, I guess everyone's quite privileged. They've come from privileged families and I'm the odd one. I'm from Rotorua, from a very poor area. I'm always grateful considering the background I have and where I

am today. I think my background impacts many things including inclusion.

There are times when I feel a little left out. (INC30)

From the above statements, it was noticeable that factors other than gender may shape women's experiences of work group inclusion. Age and social class were brought up by the participants themselves.

6.3.3.4 Organisational Leaders' Efforts

As discussed in the review of the literature (see Section 2.3.3), leadership plays a key role in facilitating work group inclusion (Boekhorst, 2015; Randel et al., 2016). Perhaps unsurprisingly, therefore, participants noted that their organisational leaders made an effort to help participants feel included in the work group.

The leaders of the workplace supported individuals to connect with each other and this was evident in some workplaces as participants admitted having felt better after a change in management. "I think it's very important for the leader of the organisation or leader of the team to drive that inclusion" (INC11). Participant INC11 further said:

We had management who was not as inclusive as this, but right now the position that we are in, we have a good leader and good management. I think it's to his credit he's holding us all together like that. (INC11).

Similarly, participant INC14 also supported this point:

I'd say that it's pretty good. I have had a female manager, and now happen to have a male manager. I think the company works pretty hard at being inclusive and it's probably why I have stayed as long as I have. (INC14)

The work group leaders' support impacts work group inclusion. Some of the inclusive practices are initiated, and/or implemented by the leaders. Participants admitted that they had had several negative experiences, including gender

discrimination in previous organisations. Participant INC14 described her previous experience as below:

Not in this work group, but in a previous company where it was quite difficult and perhaps the relationships that you fostered were a bit less than the average guy did. As a woman, if you are in a male-dominated team, you figure out the people that are easier to get on with that relate to you more in an easier way compared with others, and you tend to approach them with your problems and interact with them more. It's just natural. (INC14)

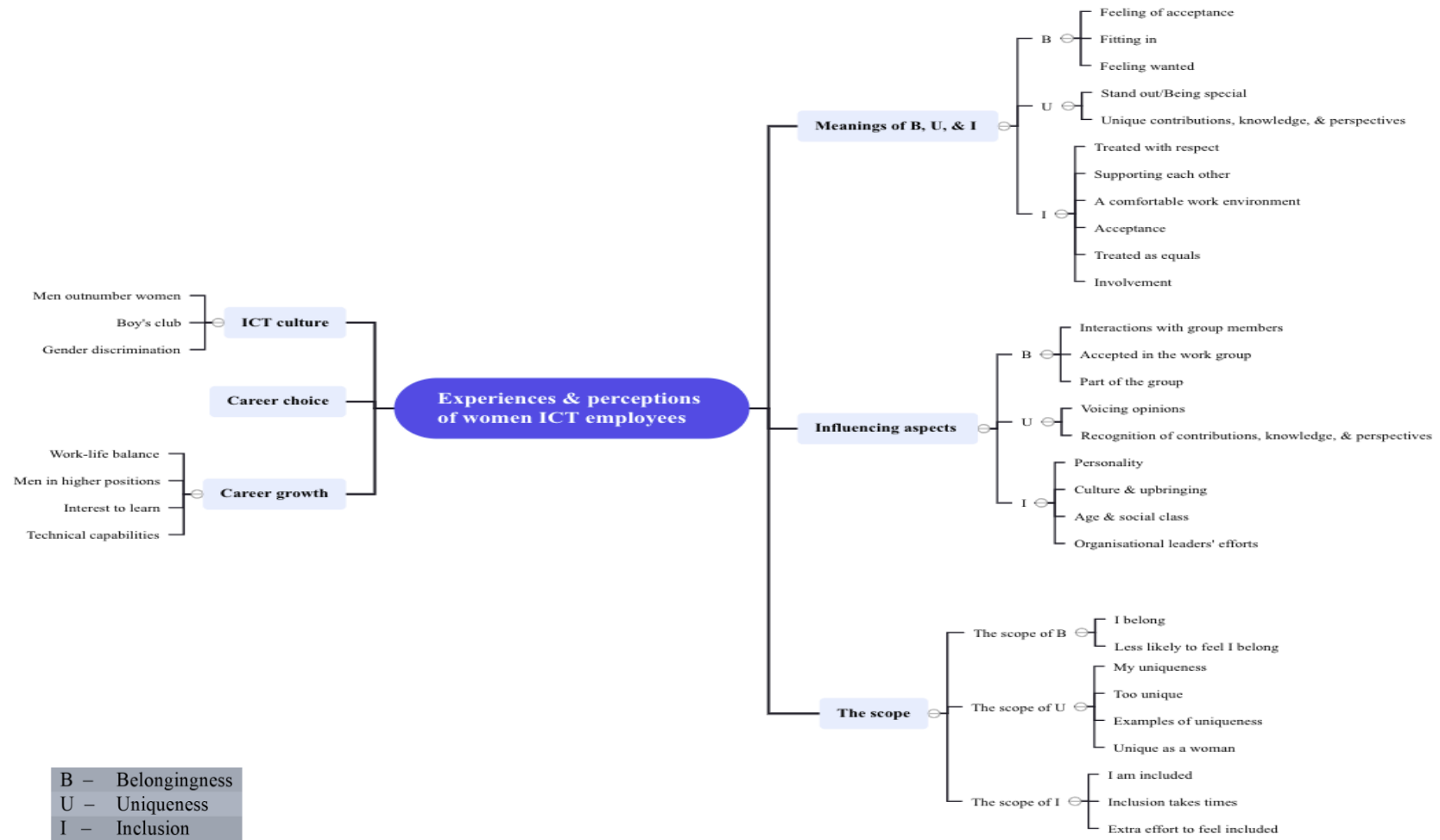
Some participants admitted to having left the previous organisation due to not feeling included. Participant INC16 explained:

I left my previous job because the company did not take any D&I [Diversity and Inclusion] initiatives. There were problems, especially for women working there like myself. The top people were informed, but they took no interest to resolve the issues. I didn't feel like I was taken seriously. I didn't feel included. I was excluded. So, I left the company. (INC16).

It is apparent that participants wanted to feel included in their work groups. If they did not feel included, they decided to look for other employment opportunities. The intention to leave the previous employment implies the significance of inclusion for women ICT employees.

Figure 6.2

Coding Framework: Experiences and Perceptions of Women ICT Employees



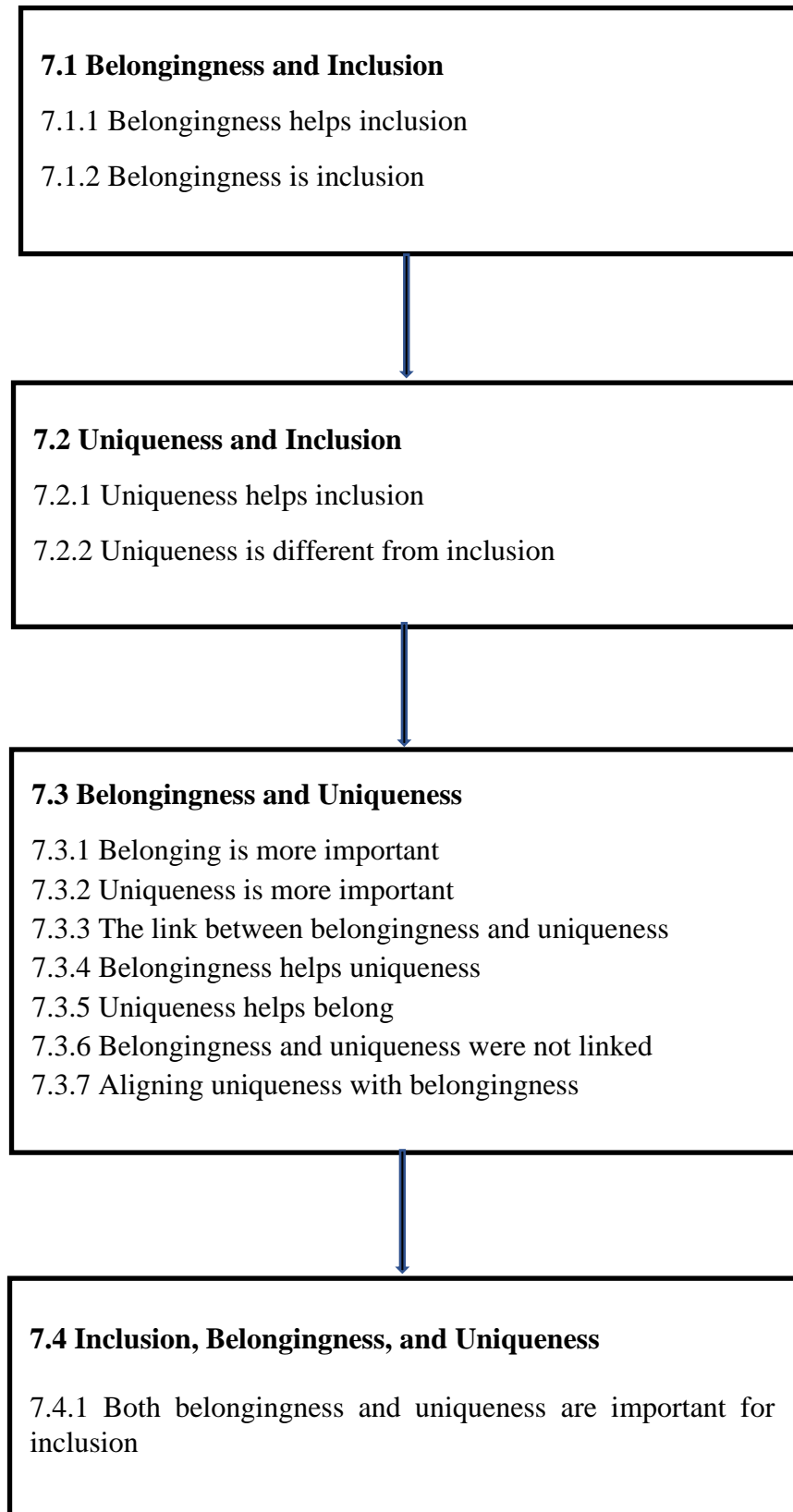
6.4 Summary

This chapter provided participants' experiences and perceptions of work group inclusion about belongingness and uniqueness. How participants described belongingness, uniqueness, and inclusion, the scope of their experience and the factors that influenced their experiences and perceptions of inclusion were presented in detail. The next chapter, Chapter Seven, presents participants' views about the relationships between inclusion, belongingness, and uniqueness.

Chapter Seven: Relationships between Inclusion, Belongingness, and Uniqueness

7.0 Overview

The second research question is: How do women ICT employees view the relationships between inclusion, belongingness, and uniqueness? This chapter presents the findings related to the second question of the study. The previous chapters focused on answering the first research question, which was to explore how women ICT employees experience and perceive inclusion in their work group. Chapters Five and Six presented the work context, gender-related aspects, and the participants' experiences and perceptions of work group inclusion. This chapter highlights the extent to which participants felt belongingness and uniqueness influence inclusion in the work group, and whether belongingness and uniqueness are linked to each other. In addition, the chapter discusses whether participants perceived both belongingness and uniqueness to be required for them to feel included in the work group.

Figure 7.1*Chapter Overview*

7.1 Belongingness and Inclusion

Participants explained how they viewed the relationship between belongingness and inclusion and the themes identified are: Belongingness helps inclusion and belongingness is inclusion.

7.1.1 Belongingness Helps Inclusion

Participants described belongingness as a feeling of acceptance, fitting in, and feeling wanted. More than half of the participants (61%) believed that feeling like they belonged to the work group helped inclusion. Accordingly, when an individual knew that there was a place for her in the work group and when she felt that she fitted in, she felt included. “Yes, when you feel like you belong to a group, you feel that you're included in the group as well” (INC18). When asked whether belongingness made them feel included, participants responded as follows. Participant INC7 described her feelings as:

Yeah! I think it [belonging] really helps you be the best you can be in your workplace. If you feel that you are in the right place and you feel like you belong. It's like pieces of the puzzle fit together and then you feel included. (INC7)

Participant INC15 added:

Yes definitely. Just knowing what your place is and you fit in with everyone else, and how they fit in with you just creates an accepting environment. It creates certainty to an extent, and security. It keeps functioning as a team and inclusion. (INC15)

The majority of participants believed that belongingness and inclusion were connected and that belongingness led to inclusion. The terms used to define

belongingness, such as acceptance, fitting in, and feeling wanted were repeated by participants to explain that such terms meant inclusion for them. For some participants, belongingness and inclusion meant the same thing.

7.1.2 Belongingness is Inclusion

Some participants (36%) were of the view that belongingness and inclusion were the same. Participants said that belongingness was inclusion and that they could not distinguish between the two concepts. “I don't think they're different [belongingness and inclusion]. I think they're the same” (INC20). Participants INC5 and INC22 described the same:

For me, belongingness and inclusion sound the same. It's pretty [much] the same for me. It does make me feel included. The feeling of belonging does make me feel included. (INC5)

Participant INC22 added:

I think it [belongingness] is the same as inclusion. (INC22)

It was noticeable that for some participants the sense of belongingness was sufficient, as they perceived it as inclusion. These participants did not sense a difference between the two feelings. Therefore, experiencing belongingness made these participants feel included in the work group because the two feelings were considered the same.

Participants who stated that belongingness and inclusion were the same chose scenario one (see Appendix D) when they were asked to choose the ideal situation. Scenario one depicts a situation where one's need for belongingness is fulfilled and the need for uniqueness is not considered.

For me, scenario one is inclusion. I think Bella has everything she needs. She is definitely included. (INC22)

The fulfilment of belongingness seemed sufficient for these participants. They felt included when they felt they belonged.

7.2 Uniqueness and Inclusion

Participants explained how they viewed the relationship between uniqueness and inclusion and the themes identified are: Uniqueness helps inclusion and uniqueness is different from inclusion.

7.2.1 Uniqueness Helps Inclusion

Uniqueness was described as standing out and being special by participants. Experiencing uniqueness influenced the participants (47%) to feel included in the work group. While some accepted that uniqueness made them stand out, they still claimed that uniqueness helped inclusion. “Yes, I think my uniqueness contributes to my inclusion and because it's something that is needed in my job - to think out of the box” (INC19). The explanations of many participants including INC3 and INC11 also supported this idea:

Of course, uniqueness contributes to inclusion because you get heard more. For example, in a stand-up [meeting], when somebody asks for an idea and if everybody gives similar ideas without any novelty, there is no point. But if you propose something unique, you gain respect. You get liked more and it's a good pathway for you to progress as well. Uniqueness plays a very important role because you are valued. (INC3)

Participant INC11 added:

Yes, strangely yes. Usually, you would think that uniqueness is something that stands out and everyone looks at you as another. But I do feel included even though I think of myself as unique. People in leadership positions make uniqueness seem good, especially in New Zealand. That's something different to back home in India. Here, everyone is equal in the workplace. It doesn't matter if I'm just a graduate and I'm working with someone who is a PhD. The leader who we have right now is a good leader. We had management who was not as inclusive as this, but right now the position that we are in, we have a good leader and good management. I think it's to his credit he's holding us all together. (INC11)

The point that was made here is that when an individual has the ability to contribute to group tasks in a different manner, that person is included in the group by other members. Therefore, when her/his uniqueness in terms of contributions, knowledge, and perspectives are appreciated, and it makes the person feel included.

Interestingly, when choosing their preferred scenario (see Appendix D) out of the three scenarios provided, only a few of them (11%) thought that scenario two, which depicted a situation where the need for uniqueness was fulfilled, but not belongingness, reflected inclusion.

I think scenario two [does reflect inclusion] because Urika is working in a team, where the majority of members are men. They work on projects together and the team members are appreciating her ideas and her talents. And, she is encouraged to make the decisions and she also feels that her skills and knowledge are recognised. The only thing that's not there is belongingness. She

does not feel that she belongs, which I don't feel is necessary to do a task at the end of the day. She doesn't feel part of the team, which I think is ok. Because at the end of the day, she is still working on a project. (INC11)

For these participants, the appreciation of uniqueness is important. If they were able to show their unique talents by applying their unique contributions, knowledge, and perspectives to organisational tasks and voicing their opinions, they felt fulfilled. From INC11's statements, it was visible that the group leader also played a significant role by appreciating the uniqueness of group members.

7.2.2 Uniqueness is Different from Inclusion

Only a few participants (13%) claimed that uniqueness was not integral to inclusion. For them, these two concepts were different from one another, which means that they did not find a relationship between inclusion and uniqueness. Thus, these participants felt that uniqueness did not help them feel included. "I wouldn't say I'm unique. I would say 'different'. I don't think that helps being included at all" (INC27). Participants INC5 and INC18 also supported this idea:

No, I don't think uniqueness and inclusion are linked. Because being unique is completely different from feeling included. You might not be unique, but still, the team would include you and make you participate in whatever is going on. So, you don't need to be special to be included. I've never experienced uniqueness and inclusion to go hand in hand. (INC5)

Participant INC18 said:

No, it doesn't. Usually, uniqueness doesn't help inclusion. If [you are] very different from other people in a team, usually, people might resist you. It depends on how unique you are. If you're just a little bit different, that's fine. I

think it matters how different you and your work colleagues are. If you're a lot different, you won't be accepted in the work group, but if you are just a little bit different, you will fit in easily. (INC18)

These participants understood uniqueness as exceptional and therefore, believed that such individuals could not fit in easily with others. The responses signified that if one did not share a common factor with other work group members, then that individual ended up feeling excluded. Therefore, for these participants, uniqueness was different from inclusion, and they saw no connection between the two concepts. They perceived that uniqueness did not help inclusion.

7.3 Belongingness and Uniqueness

Participants explained how they viewed the relationship between belongingness and uniqueness and the themes identified are: Belongingness is more important; uniqueness is more important; the link between belongingness and uniqueness; belongingness helps uniqueness; uniqueness helps belong; belongingness and uniqueness were not linked; and aligning uniqueness with belongingness.

7.3.1 Belonging is More Important

When participants were asked to respond to the question as to which need, belongingness or uniqueness, was more important to them, most of them (89%) chose belongingness. They preferred to be accepted by other members of the work group; although they admitted that being unique was important, if they were to choose one. “Not as such. I think belonging is more important. There should be a balance, but I feel belonging is more important” (INC12). Participant INC20 also gave a similar statement:

I think that feeling like you belong to a team is really important. I don't believe that feeling unique is important. I know that I have different experiences that I bring to our shared purpose, but if the guy sitting next to me had a similar background as well, I don't think that would promote or diminish the belonging or the effectiveness. (INC20)

Participant INC3 said:

Probably belonging is more important. Uniqueness is quite a different one. I don't know how important it is. I see it as important from an HRM perspective because I feel like everyone has to have their little differences, ideas, and initiatives. Belonging is what I'd define as more important in this instance rather than uniqueness. (INC30)

It was apparent that participants valued belongingness more than uniqueness. They felt that blending in with other group members was more important than being distinct from others. Most women admitted that when their desire to belong to the work group was fulfilled, they do not necessarily feel the desire to fulfil their need for uniqueness. INC22 explained it as follows:

Belonging is sufficient at work. I don't think it is important to satisfy uniqueness. (INC22)

It is also plausible for them to fear being too unique to the extent that they cannot fit in as discussed in the previous chapter. However, participants seemed to be more interested in assimilation than showing their unique skills, as they believed that belonging helped them with inclusion.

7.3.2 Uniqueness is More Important

A smaller number of participants (11%) claimed that uniqueness was more important. They acknowledged that being unique in a special way was always good and they liked being different from others. “I think uniqueness is more important. In the world, there are many people. If everyone’s the same, then there’s no difference. So, we should be unique. We should be different from others. I believe uniqueness is more valuable” (INC17). Participant INC21 described her preferences as below:

I'd probably lean a little bit towards uniqueness. If you're ok with being yourself and people don't accept that, then I don't feel like it's a negative on the person; it's more of a negative on the people that aren't including you. Belonging obviously would be nice, but I don't think it should be sacrificed by changing your uniqueness. (INC21)

Participant INC36 added:

As a whole no, because it comes down to the individual. To someone like me, the feeling of uniqueness is important. I'm capable of being successful and being happy on the outer. I'm not reliant on other people for my happiness or contentedness. That's just me. A lot of people just need that sense of belonging, expectedness above everything else. (INC36)

Participants stated that accepting their own uniqueness and applying it to organisational tasks was not something that every person can do. Thus, only a few participants embraced their uniqueness and appreciated it. They did not need others’ approval of their uniqueness as they were proud of it. While they wanted to belong to their work group, they valued their uniqueness more.

7.3.3 The Link between Belongingness and Uniqueness

When asked if participants recognised a relationship between the two concepts, belongingness and uniqueness, some responded that there was a link in some way. A few could not explain how belongingness and uniqueness were connected. “Personally, for me yes, belongingness and uniqueness are linked. I don't know exactly how to explain it, but yes” (INC34). Participant INC12 explained why she thought uniqueness and belongingness were connected:

Yes, they are connected. Because my knowledge is the unique thing. And the belonging part is my team. So, my knowledge and my team belonging go hand-in-hand. (INC12)

Some participants thought uniqueness and belongingness were linked to each other. Participants explained their perceptions by stating that belongingness led to uniqueness or uniqueness helped them belong.

7.3.4 Belongingness Helps Uniqueness

Some participants (67%) felt that belonging led to uniqueness. When they felt they belonged, they could be unique at work. That is, when they felt comfortable and accepted, their individuality was brought out; however, when they did not feel they belonged, their unique contributions, opinions, and talents were not offered to the work group. “Well, if you feel like you belong, you're quite happy to voice your opinions. Otherwise, you wouldn't voice because your opinions may not be accepted” (INC16). Participant INC7 explained her views as follows:

I think the uniqueness is yourself, in you as a person and your morals and who are you and what you have to offer. Belonging is where you are, and I think sometimes you can be you. Be unique and have something to offer but be in

the wrong organisation that doesn't fit for you. I think in any role that anyone does, they should have a sense of belonging because if you don't have the belonging, then you can't bring your full self to the role. I think belonging is more important. I think you always have your uniqueness as a person and you always have your offering, whoever you work for, but if you don't feel like you belong, you can't give your full self. (INC7)

Participant INC14 said:

I think that people who feel that they belong, are people who feel that they're being listened to. A group that has a belonging culture, accepts the uniqueness of every person, and accepts the opinion of every person and listens to them. Even if what they say doesn't go ahead, their ideas are taken on board. (INC14)

Participants felt that their uniqueness could easily be applied if they belonged to the work group. Since uniqueness is inculcated in them, participants felt that it could not be taken away from a person. Hence, belonging is expected to help show their unique self to work group members.

7.3.5 Uniqueness Helps Belong

An interesting finding is that only a few participants (23%) believed their uniqueness helped them belong. "Uniqueness might contribute to belonging" (INC25). Participants INC14 and INC28 also described the relationship between uniqueness and belongingness as follows:

If you've got a team that varies a lot, then everyone's a little bit unique and yet everyone belongs. Whereas if you're in a team where they are all men of 20s or 30s, then no one's unique. So, they're all very similar. I think the make-up of

our team is a lot more varied and I think most people feel like they belong, but respect that everyone's a bit different. (INC14)

Participant INC28 said:

In order to belong, to be a part of something, I think in a team, the team needs to understand who you are and what is unique about you, and how you are different from them and what your strengths and weaknesses are because then the team can flourish. They know who to rely upon for what. (INC28)

From the participants' perspective, if work group members are endowed with different talents, the members of the group can blend in well. Therefore, uniqueness is viewed by these participants as a facilitator that helps them to belong to a work group.

7.3.6 Belongingness and Uniqueness Were Not Linked

A minority of the participants (10%) said they did not think belongingness and uniqueness were related to each other, thus felt belongingness and uniqueness had not connection. These participants responded that belongingness and uniqueness were two different concepts that did not go hand-in-hand. "No, I don't think there is a connection between belongingness and uniqueness" (INC25). Participants INC17 and INC29 stated that the two concepts were not connected:

I don't think there is a relationship. Uniqueness is "I'm different". Belongingness means, "I belong to something". So, I don't think they are related. (INC17)

Participant INC29 added:

Specifically, no! I don't think the two are linked. I think you cannot be unique and belong and be unique and still belong. (INC29)

For some participants, belongingness and uniqueness were two completely different feelings. These participants believed that belongingness and uniqueness could not coexist.

7.3.7 Aligning Uniqueness with Belongingness

Similar to the 'too unique' theme that was generated under the uniqueness-related scope (see Section 6.2.3), participants agreed that their uniqueness and belongingness could be shown at a moderate level. They expressed that they preferred not to belong or show their uniqueness too much in order to avoid any controversy. Participant INC23 shared her opinions as below:

I think everything in moderation is always good. (INC23)

Participant INC32 said:

As women, if you have uniqueness and you are seen as unique in a bad way, that's not gonna help. Whereas, if people accept uniqueness as being an important part of who we all are as people, then it is amazing. (INC32)

Taking the relationship between the two concepts of belongingness and uniqueness into consideration, it was apparent that some participants did not like to be too unique. They stated that being too unique prevented them from belonging. Similarly, they thought that belonging to a group where they could not voice opinions or apply their talents was ineffective. Therefore, they preferred to align the two to suit the work group. The interesting point is that participants believed that aligning

belongingness and uniqueness depended upon the situation, i.e. the type of work group they were part of. Participant INC4 explained it as below:

Both are important. Based on the circumstances, sometimes, one takes more weight. You have to try to understand these situations at that moment. Sometimes, you are fighting within yourself between these two things. You say, "It's the right time to stand up for my point". Sometimes it's too late to stand up for a new point or new idea and maybe just go with the flow at the moment and later on come back to that. (INC4)

Participant INC15 explained:

It probably depends on the environment. There are some environments where being outstanding and unique and exceptional is what allows you to belong. And there are environments where being even an over-achiever, or somebody who dresses differently, or stands out for whatever reason, might actually be frowned upon and might push the person out of that group. For our workplace, you kind of wanna shine a little bit, but you don't wanna show people up. There's always the payoff between getting something really, really right and stepping on toes, which obviously you kind of want to avoid. (INC15)

Participants were not comfortable contributing to organisational tasks using their unique skills and knowledge if they felt that they would not be accepted by other group members. In order to maintain their belongingness, they filtered their opinions to suit the context.

7.4 Inclusion, Belongingness, and Uniqueness

Participants were asked whether they felt the need to fulfil both belongingness and uniqueness needs at the same level to feel included. Their explanations were supported by their choice of scenario.

7.4.1 Both Belongingness and Uniqueness are Important for Inclusion

Participants (62%) thought that both belongingness and uniqueness were important. They felt that it would be ideal if both needs could be satisfied equally in a work group. Participants stated that both belongingness and uniqueness were important, but they did not believe that the idea of fulfilling belongingness and uniqueness at the same level was practical. Participant INC21 shared her ideas:

Yeah, I guess so. You should be able to be as unique as you are without going too far in one or the other. If you're being yourself, and feel like you belong, then I think it's inclusion. You should be accepted and included because of who you are. But I don't really expect equal satisfaction. (INC21)

Participant INC3 said:

If you don't feel you belong or you don't feel involved or unique you can't progress. You can continue doing your stuff, but if you want to progress in your career, I think both belonging and uniqueness are important. (INC3)

Participant INC13 added:

You are more likely to stay in an organisation where you belong and also embraces your uniqueness. I'm not really sure if it's achievable though ... (INC13)

The above point was supported by the participants' selection of their preferred scenario, out of the three scenarios presented to them (see Appendix D). The majority

of the participants chose scenario three, which depicted inclusion. Participants expressed that inclusion was felt when both belongingness and uniqueness were satisfied. “I think scenario three because that one aligns most with my way of thinking. She feels like a part of the group and that her unique attributes and her personality are accepted. I think that's the ideal team environment” (INC21). Participant INC6 felt the same about inclusion:

Obviously the last one [scenario]. Her knowledge, skills, and unique attributes are appreciated. She belongs, and her unique attributes are also recognised at the same time. (INC6)

Participant INC24 added:

For me, it's the third one because we should have equal width. The first scenario is where you feel that you belong, but your ideas are not recognised. It's like loving you, but not respecting you. The second scenario is where your ideas are recognised, but you don't feel like you belong. It is more of them admiring you, looking up to you, but they don't trust you. (INC24)

However, they agreed that it was not plausible in reality for a person's desire for belongingness and uniqueness to be fulfilled at the same level. “Scenario three would be the ideal scenario where you have both, uniqueness and the sense of belonging, which does not happen in real life” (INC19). Participant INC36 shared her thoughts:

I know that's not always the case. It is not possible for a team to satisfy your belonging and unique needs at the same level. If you can get both, then that's the most awesome thing ever. (INC36)

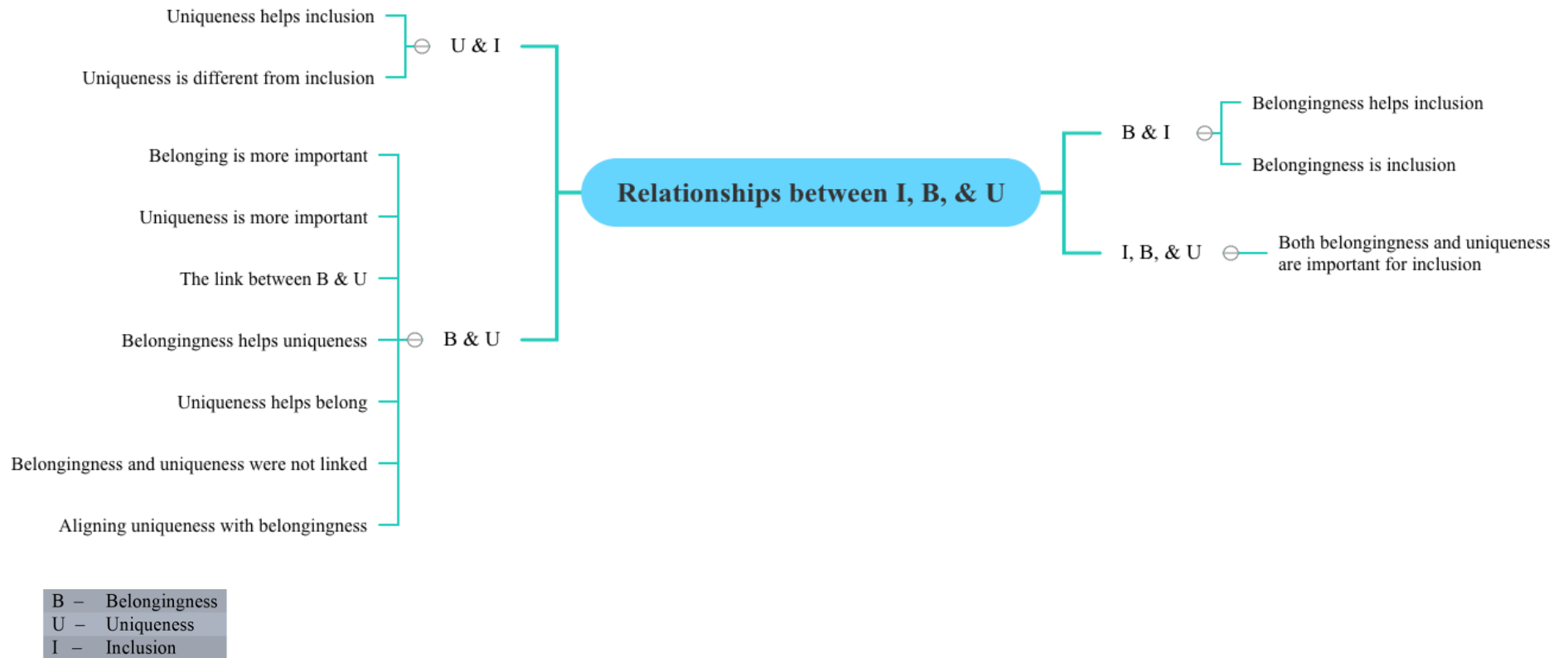
Participant INC12 added:

Expecting both belonging and uniqueness needs to be fulfilled is not practical at all. It can never be achieved. We have to be real, practical. I think we must realise only belongingness or uniqueness can be fulfilled. Be realistic you know... (INC12)

The participants expressed that both belongingness and uniqueness needs cannot be fulfilled at the same level. In an ideal world, they felt that both needs could be fulfilled at the same level, although it may not be practical.

Figure 7.2

Coding Framework: Relationships between Inclusion, Belongingness, and Uniqueness



7.5 Summary

This chapter presented participants' views about the relationships between inclusion, belongingness, and uniqueness. Participants associated belongingness with inclusion and while uniqueness was identified as a contributor to inclusion, it was less important than belongingness to the majority of participants. Ideally, participants would like both belongingness and uniqueness needs to be fulfilled at the same level, but if they were to choose, the fulfilment of belongingness needs was preferred. The next chapter, Chapter Eight, discusses the findings in relation to the literature.

Chapter Eight: Discussion

8.0 Overview

This research aimed to explore how work group inclusion was experienced and perceived by women ICT employees and how they viewed the relationships between inclusion, belongingness, and uniqueness. The participants were based in New Zealand and were working as ICT employees at the time the interviews were conducted. The study contributes to the literature by advancing knowledge of work group inclusion through empirical data. In addition to the contribution made to the literature, the study also contributes in a practical manner by giving recommendations to HRM personnel in organisations on developing and designing inclusive practices and policies.

In this chapter, the findings presented in the previous three chapters, Chapters Five, Six and Seven, are discussed in relation to the reviewed literature and are extended by delving into the meaning and importance of this experience. I provide a comprehensive view of the experiences of work group inclusion.

8.1 Gender-related Aspects at Work

The findings reinforced the gendered nature of the ICT field, as many gender-related aspects that shape the participants' experiences of work group inclusion were highlighted. Gender-related aspects at workplaces impact women on a regular basis (Acker, 2012). Organically, some of these factors, e.g., career growth and ICT culture, play a role in their experiences of inclusion.

8.1.1 Career Choice

The findings relating to women's choice of the ICT profession are interesting because they provide some background knowledge as to why women work in the

gendered profession of ICT. Information related to women's career choice adds up to their experiences of inclusion in ICT. As shown in the findings chapter (see Section 5.1.1), not all women fall under the three main reasons, willingly choose ICT, naturally transfer, and serendipity, when choosing a career in ICT as suggested by Crump et al. (2007). The findings of the current study show that some participants were influenced and encouraged by their friends and family to take up ICT careers, as they understand the benefits of IT-related roles (Teague, 2000). Friends and family see the potential opportunities in ICT, as it is a growing field and thus encourage women to choose ICT. Serenko and Turel (2021) and Teague had a similar finding in their study of women in IT. They explain how the influence of a close individual makes women consider IT as a career. In the findings of the current study, it is apparent that male friends and family are most likely to influence participants' career decisions. Some women often do not consider ICT as a career choice as they see men are dominant in ICT, and that there is a small, mainly invisible number of women ICT employees. Lack of women role models is one of the main reasons for women to avoid ICT-related careers and this factor is in line with a factor also presented in Ahuja's (2002) and Serenko and Turel's studies. According to them, seeing women role models in a male-dominated field can be encouraging for girls at the post-secondary school stage (College education). This is the stage where girls consult faculty members to gain information before making their career choices. Yet, girls may not feel like they have sufficient information to enter the ICT profession due to the lack of women role models in ICT (Ahuja, 2002; Serenko & Turel, 2021).

Crump et al.'s (2007) three reasons were also reported by the participants in the present study. A few women willingly chose ICT as a career, some naturally

transferred after beginning their career at a lower level, e.g., as a secretary, and others fell into ICT after having studied in a different field.

Women also choose a particular area of ICT according to their convenience. Some participants did not like extensive travelling and thus gave up their jobs, such as IT networking and joined academia. As per the points highlighted by other studies, certain demands and practices in the ICT profession make it difficult for women to pursue ICT careers, such as dually managing work and home life (Bosch et al., 2021; Holth et al., 2017; Kirton & Robertson, 2018). The findings of the current study also show how participants changed their career paths to accommodate their needs.

In summary, participants indicated four reasons to have chosen ICT careers, which include influence, willingly chosen, naturally transferred, and serendipity. The key points of the above discussion are that the *lack of women role models* and certain *work demands and practices* can impact women when considering ICT as a career choice.

8.1.2 Career Growth

It is commonly known that women are less considered for leadership roles in ICT due to gendered practices and processes (Ahuja, 2002; Bosch et al., 2021; Simard et al., 2008). However, it is important to note that some women do not accept advancement opportunities due to various other reasons. Some of the participants (25%) avoided leadership roles because they wanted to focus on family. Other roles that women play, such as the role of a mother, prevent them from focusing more on professional life, which means that personal circumstances interfere with their work-life to a large extent (Bosch et al., 2021; Hacker, 1981; Hardey, 2019; Kirton & Robertson, 2018; Kossek et al., 2017; Simard et al., 2008). Often, despite changes in

government policies (Holth et al., 2017), women choose between family and work (Bosch et al., 2021; Kirton & Robertson, 2018; Simard et al., 2008). The reason for this is that the job roles are not created to suit the needs of female employees. The jobs are mainly designed for men (Acker, 2012). As a gendered occupation, often women find it difficult to adjust to various demands of the ICT profession. If women are to embrace advancement opportunities, they need to give up on their personal responsibilities or learn to manage both work and family. Armstrong et al. (2018) noted that work-family conflict impacts women's advancement opportunities more than it impacts the decision to stay in the ICT profession. Women need flexibility at work in order to manage both work and family. Participants considered the inflexibility of organisations as organisations being less inclusive. The culture at many workplaces favours employees without domestic responsibilities (Webster, 1996). Webster's 1996 study found that women without children are provided with opportunities, such as good projects and overseas training, and Gregory's (2016) findings show that the situation for women has not improved since. The findings of this study indicate that women still find it difficult to manage work and home responsibilities and organisations still favour women without parenting responsibilities.

Through the findings, it was identified that some participants found it hard to re-enter the workforce after childbirth. Seventeen per cent of the participants said that re-entering work after childbirth was difficult, highlighting that new mothers may often fall behind when it comes to career progression, especially, in the technology field where things evolve at a rapid rate. Women who take a few months off after childbirth are unable to catch up. In many organisations, they are not given extra training and support. Therefore, they have to make an extra effort to keep up with the

changes. Crump and Logan (2000) discussed the same matter in their study in 2000 and the current study indicates that there seems to be no progress with regard to this matter. The expected shift in the paradigm (Brasseur, 1993) has not been achieved. Particularly, if women's interests, needs, values, and views can be supported by organisations on the job and off the job, women are more likely to succeed in both professional and personal life (Kossek et al., 2017). Hence, organisational policies and inflexibility impact participants' career growth in the ICT field.

Most participants found it hard to climb the organisational ladder due to the manner in which organisational structures are created. The organisational logic is the logic of bureaucracy and hierarchy, which explains how control, power, resources, and responsibilities are arranged (Acker, 2012). The gendered pattern impacts the organisational logic, which limits the number of women moving up the hierarchy (Gregory, 2016; McGee, 2018; Valenduc, 2011). The findings of the current study show that most participants (74%) believed that men mostly occupy higher positions while women struggle to move up. "In the entire organisation, there are only two or three female managers and the rest are men" (INC5). It was a common view that women were offered fewer advancement opportunities compared to men in the ICT field. The findings of the current study are similar to the findings in previous studies. Alegria (2019) and Valenduc (2011) discuss how women gradually reach the middle management level and find it harder to reach beyond the middle management level. Based on the findings of the current study, it was also noticeable that participants expressed a lack of support for career progression and they felt less included. Ahuja (2002) and McGee (2018) state that the lack of mentors impacts women's career advancement. Therefore, women in ICT need career guidance for professional advancement.

Even in a context where opportunities are limited for women, interest to advance knowledge and skills was noticeable among the participants. They were eager to learn various ICT skills to better perform their current role or the next role they were aiming for. It can be asserted that not all women want to be stagnated in a job role. They feel the need to improve their skills for new challenges (Armstrong et al., 2018). Ruel's (2018) study shows a similar example of a woman improving her knowledge and skills through learning to keep up with the employment challenge in the technology field.

Notably, there is a misconception about women's disinterest and/or capability in technical work. Ahuja (2002) discusses how women are assigned non-technical work while men occupy technical positions in the organisation. Contrary to the belief that women have less technical skills than men, women are good at technical work (Gregory, 2016; McGee, 2018) and the findings of the current study show that participants (52%) enjoyed working with the hardware related to computers. Contrary to the findings in Alegria's (2019) study where women in the USA develop their interpersonal skills to be promoted to higher levels, study participants in New Zealand enjoyed technical work more than managerial work. This is supported by Webster (1996) who says women do not like to be excluded from technologies. Findings suggest that some participants thought it was important for them to be in the technical field. They did not prefer to be promoted in the non-technical path, but rather enjoyed doing technical work. A few participants admitted that they did not realise they could be technical leaders since there was a lack of women role models as they had not come across any women technical leaders. The lack of women role models is highlighted again. As Ahuja, Armstrong et al. (2018) and Serenko and Turel (2021) note, women role models are required in the field of ICT. The fact that women have mostly been

associated with domestic work contributes to a stereotype that they are technically incompetent (Wajcman, 2010). According to the findings, participants believed that they possessed the required skills to become technical leaders in the field. Even though women are often excluded from technical work, it is noticeable that women are technically competent.

Women's career equality is defined as having equal access and participation in career opportunities and experiencing equal external and internal work and non-work outcomes compared to men (Kossek et al., 2017). Yet, the question is whether women's careers are actually treated as equal to men's. Hindering career advancement is a sign of exclusion for women in the ICT profession (Armstrong et al., 2018; Bosch et al., 2021). The significant point of the discussion is that *work-life balance issues, organisational policies and inflexibility, organisational structure, lack of mentors, and lack of women role models* impact women's career growth.

8.1.3 ICT Culture

The findings of the current study support the claims of scholars, e.g., Alegria (2019), Armstrong et al. (2018), Bosch et al. (2021), Kenny and Donnelly (2020), and Kirton and Robertson (2018) who state that women are a minority in the field of ICT with 94% of participants stating that their work groups mostly consisted of men. "Gender composition is 80:20. 80% men and 20% women" (INC16). It is widely known that there is a tendency to recruit more men than women for ICT roles (Kenny & Donnelly, 2020). The male-dominant culture impacts the inclusion of women (Annabi & Lebovitz, 2018) because women as the minority, tend to be excluded in work groups, and thus they face discrimination and barriers (Ahuja, 2002). While it can be asserted that the under-representation of women impacts their inclusion, research shows that there is an improvement in the number of women entering the ICT

profession internationally (Holth et al., 2017; Timms et al., 2008). Yet, the employment statistics in New Zealand show that there is a reduction in the proportion of women entering ICT roles (see the New Zealand context under Section 3.2.2.1). Interestingly, the participants of the current study claimed there was an improvement in the number of women entering the field and two participants stated that their gender had been beneficial, as they believed that the smaller number of women applicants had improved their chance of being recruited.

The ICT profession is known as a boy's club due to various practices, such as after-hour gatherings and discussions that only interest men. Participants' claims support past studies, such as Holth et al. (2017) and Kirton and Robertson (2018), which state some practices demand more time from women in ICT and these conflict with women's family commitments. When some women are not able to participate in such gatherings, naturally they feel socially excluded. Participants stated that often decision-making took place outside the workplace and working hours. Such incompatible demands reflect Acker's (2012) work on gendered work culture. Acker explains how organisational culture and practices are gendered. Expecting women to socialise after work without considering their ability and availability to participate is a sign of exclusion. Bosch et al. (2021) and Timms et al. (2008) illustrate how women miss contributing to work when decision-making occurs outside of work hours. Previous studies highlight the impact of gendered practices in the ICT field (Acker, 2012; Armstrong et al., 2018; Ashcraft & Cohoon, 2017; Holth et al., 2017; McGee, 2018; Timms et al., 2008).

Evidence can be found in the existing literature that gendered practices lead to discrimination against women in the ICT field, such as Kirton and Robertson (2018) and Trauth (2002), who identify women as victims of gender discrimination in ICT

work groups. Participants shared instances when they were discriminated against due to gender. The findings of the current study indicate that discrimination includes disrespecting female managers, harsh comments on women's opinions, and doubting their skills and knowledge due to gender. In line with Kirton and Robertson's finding where some women find it difficult to manage men in the work group, this study participants also reported similar experiences (e.g., INC1 and INC11).

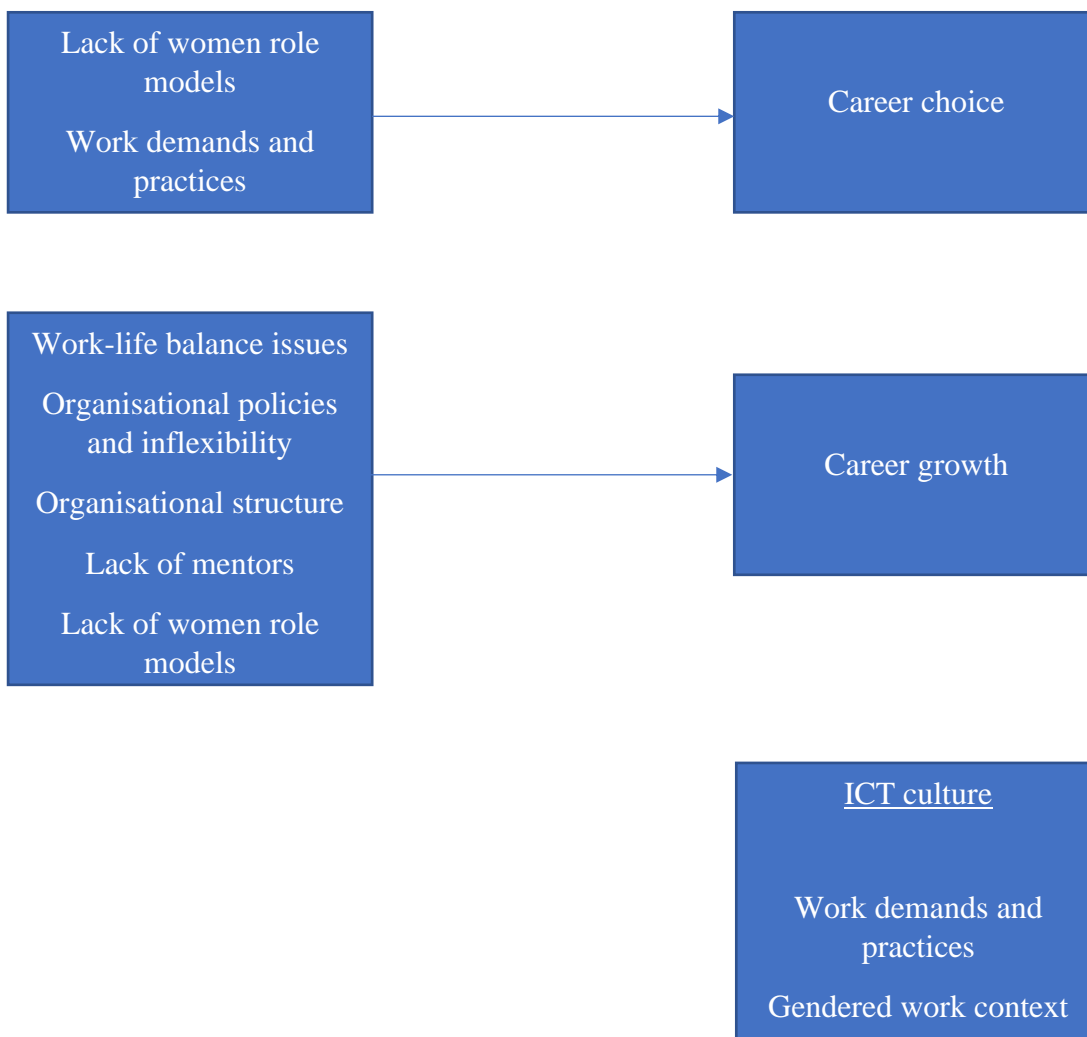
I disagreed with him on something so, I said to him "I don't think that's right. We should do it this way". He goes like "Oooh are we touchy? Is it that time of the month?". I said, "Excuse me!". I just went red. I was so embarrassed.
(INC10)

Although some participants said that they were not able to understand whether they were discriminated against due to gender, research, e.g., Annabi & Lebovitz (2018) and Kenny & Donnelly (2020), shows that women face discrimination in the ICT profession. Teague (2000) suggests it takes years for women to realise that they are not treated as equals. It can be asserted that women are targets of discrimination at work due to gender and studies have highlighted that gender discrimination is a barrier to inclusion (Bosch et al., 2021; Gotsis & Grimani, 2016; Randel et al., 2016). The transgender participant (INC32) stated that women were vulnerable in the ICT field and that they were not treated equally as men due to gender differences.

In summary, certain *work demands and practices* and the *gendered work context* make the ICT culture unfavourable to participants. For instance, women change their career paths due to incompatible work demands (e.g., INC11 changing from IT Networking to IT Lecturing). The findings of the current study highlight the barriers women face in the work environment and the significance of an inclusiveness

climate. Nishii (2013) and Shore et al. (2011) discuss fair employment practices as a component of an inclusiveness climate. Notably, for women in ICT, fair employment practices can lessen gendered restrictions to a certain extent by reducing some work demands and practices and by adopting flexible work models. An inclusiveness climate may ideally create an environment that supports diverse individuals by eliminating the negative impact of diversity, such as discrimination and stereotyping (Nishii et al., 2017) and enhance the inclusion experiences of employees (Shore et al., 2011).

Figure 8.1 summarises the findings of the above section by showing the factors that impact participants' career choice, and their career growth, plus the factors that make the ICT culture unfavourable to women participants. Lack of women role models and work demands and practices impact participants' career choice. Work-life balance, organisational policies and inflexibility, organisational structure, lack of mentors, and women role models impact career growth of participants. Work demands and practices and gendered work context create the ICT culture. The findings did not highlight factors that impact the ICT culture, but the ICT culture itself was, e.g., work demands and practices and gendered work context, was unfavourable to women. Lack of women role models impacts both participants' career choice and career growth.

Figure 8.1*Gender-related Aspects in ICT*

Many workplace practices and processes result in women experiencing exclusion (Annabi & Lebovitz, 2018; Armstrong et al., 2018; Bosch et al., 2021; Wright, 2016). In the above sections, it was noticeable that some of the themes discussed by Ahuja (2002) (see Section 3.4.1) and Armstrong et al. (2018) have come into play when studying women's work group inclusion experiences in the ICT profession. Despite Ahuja not having discussed inclusion in her study, a connection can be established between inclusion and some of Ahuja's themes (see Table 8.1), such as occupational culture and institutional structure through Armstrong et al.'s

work and study participants' statements. Armstrong et al. suggest that an inclusive ICT work culture can be created by understanding and improving the factors that impact women's career persistence and advancement. All of the factors discussed above, except career choice, are included in Armstrong et al.'s work, as factors influencing women ICT employees' persistence and advancement. Table 8.1 aligns the themes generated in the current study to Ahuja's themes.

Table 8.1

Aligning Themes to Ahuja's (2002) Themes

Ahuja's themes	Current study themes
Occupational culture	ICT culture Work demands and practices Organisational policies and inflexibility
Institutional structure	Organisational structure
Career choice in IT	Career choice
Advancement	Career growth
Lack of role models and mentors	Lack of women role models and mentors
Work-life conflict	Work-life balance issues

Interestingly, through the findings of the current study, it can be asserted that the above-shown themes, except career choice, in Ahuja's (2002) model (see Discussion 3.4.1) directly or indirectly shape women's experiences of inclusion in the ICT profession. I have not come across a study, which links Ahuja's work on women ICT employees to inclusion. Hence, the current study makes a significant contribution by identifying and extending the influence of Ahuja's themes on women ICT employees' experiences of work group inclusion.

8.2 Meanings

This study provides an understanding of the study's main concepts of inclusion, belongingness, and uniqueness from participants' perspectives, which is one of the key contributions to the literature. Based on ODT, Shore et al. (2011) defined inclusion in terms of belongingness and uniqueness. Although inclusion is defined using belongingness and uniqueness in the literature, women participants provided their own understanding of inclusion, such as involvement and acceptance. I begin the discussion by explaining what belongingness and uniqueness meant for participants and then compare the terms with the meanings they attached to inclusion.

In the literature, the concept of belongingness was defined as the need to develop and maintain strong interpersonal relationships (Baumeister & Leary, 1995; Shore et al., 2011). Participants referred to terms, such as, 'feeling of acceptance', 'fitting in', and 'feeling wanted' to define belongingness. The findings of the current study related to belongingness support the descriptions of past studies. For instance, acceptance and fitting in are attributes that are used by past scholars, e.g., Malone et al. (2012) and Shore et al. (2011), to describe belongingness. The other definition used by participants, which is feeling wanted, is a novel addition to the literature, as it indicates a deeper meaning than acceptance and fitting in. Feeling wanted implies other work group members like having the person in the group and blending with the person. Findings show that feeling wanted refers to having a special place in the work group. Participants needed to feel wanted by their work groups because occasionally they felt like outsiders.

Similarly, uniqueness, which is defined in the literature, as the need to preserve a differentiated self-perception (Shore et al., 2011; Snyder & Fromkin, 1980), was perceived as, 'standing out' and 'being special' by participants. Participants said that

every individual was unique and thus, they could stand out from the rest in terms of their contributions, knowledge, perspectives, unique sense of fashion, work experiences, or simply by being women, and applying feminine skills to work tasks. Shore et al. (2011) discuss the significance of treating unique attributes of individuals, such as perspectives and knowledge, as important features of uniqueness. The key point is that participants identified the secondary dimensions of diversity, such as contributions, experiences, knowledge, and lifestyle, as important features of their uniqueness. Participants also defined uniqueness as being special and in the literature, uniqueness is not necessarily defined as, being special. Ferdman (2017) briefly discusses that individuals' special values can be recognised and utilised by organisations. He does not stress the significance of being special in a work group. However, Randel et al. (2018) later labelled uniqueness as "being valued for uniqueness" (p. 190) and it can be thought of as being special. It is noticeable that participants liked to be special in a work group in a way that they value their uniqueness. They believed that they could offer something different to work group tasks. As a minority in a male-dominated field, standing out from the rest and being special seem to be important factors for women participants signifying that they are equally important in the work group.

While assessing participants' descriptions against the literature, it was noticeable that, although the literature defines inclusion in terms of belongingness and uniqueness (Shore et al., 2011), in practice, participants did not directly use these terms to define inclusion. The terms belongingness and uniqueness may not have been part of their vocabulary. As a study that aimed to explore participants' understanding of work group inclusion, it was notable that participants defined inclusion in terms of respect (treated with respect), supportiveness (supporting each other),

comfortableness (a comfortable work environment), acceptance, treated as equals, and involvement.

Ely and Thomas (2001) define inclusion as respecting and valuing individuals and some of the participants of the current study also defined inclusion, as respect for the individual. It is important to make every woman feel respected since treating women with respect at all times makes them included. According to the statements of some participants, it appears that when a woman gives an opinion, at times, it is not accepted without validation from a male colleague. In one instance, when a participant (INC10) disagreed with a suggestion by a male colleague, she was mocked. Such treatment informs a lack of respect for women's opinions in group discussions and gives a sense of exclusion.

Supportiveness of work group members and leaders appeared to be a common theme during data analysis. Not many studies have linked the term 'supportiveness' to the definition of inclusion. The supportive nature of colleagues seemed to make a difference to many participants mainly because most women worked in male-dominated environments and this point is discussed in the literature. The significance of supportiveness in promoting inclusion is discussed by Kossek et al. (2017). The findings of the current study show that when one lacks a certain skill, or some knowledge, other members' supportive behaviour helps the participant overcome the difficulty. As most individuals work as groups, or teams in organisations, the supportive nature of group members reflects inclusion. Baumeister and Leary (1995) claim that support from other group members reflects belongingness for individuals (See section 2.3.5.1). Thus, supportiveness of work group members is linked to the belongingness aspect of inclusion.

Participants perceived inclusion through a comfortable work environment. They highlighted the need to feel comfortable in their work environment in terms of women-friendly discussions and behaviour from men. Boekhorst (2015) and Ferdman (2017) discuss how feeling comfortable at work facilitates individuals to be at ease, to apply their differences in terms of contributions, knowledge, and perspectives, and to be completely themselves at work. Through learning-integration-perspective, Ely and Thomas (2001) also express that individuals should be comfortable to voice and discuss different perspectives. Thus, making individuals comfortable at work has been discussed in inclusion-related studies. In section 2.3.5.2., feeling comfortable to express an individual's opinions, ideas, and perspectives has been discussed under uniqueness, thus linking this meaning of inclusion to uniqueness.

Similarly, another common idea among the participants was the acceptance of individuals, which reflected inclusion. As discussed in the literature review (see Section 2.3.1), the definition of inclusion by Pelled et al. (1999) includes the degree of acceptance by other members. This meant that irrespective of gender differences, or any other difference, participants expected to be accepted by the majority of work group members. In section 2.3.5.1, Baumeister and Leary's (1995) claim that acceptance in the work group reflecting belongingness is discussed, thus linking this meaning of inclusion to belongingness.

While inclusive policies and practices are implemented in workplaces to promote equality among all parties, I was unable to find a study that defines inclusion in terms of equal treatment. Sixty-one per cent of the participants insisted on being treated as equals in the work group and affirmed that being treated as equals reflected inclusion. Past scholars, Ferdman (2017) and Shore et al. (2011) discuss the significance of social equality and fair treatment with regard to inclusion. Yet, equal

treatment is not included in Shore et al.'s definition of inclusion. For the participants who described inclusion as equal treatment, equality did not seem to be a contextual factor as described by Shore et al. Rather, it seemed as if inclusion was all about being treated equally. The women experienced biased treatment due to gender differences. In the technology field, the top management focuses less on gender equality (Wynn, 2020). Yet, the expectation of most participants was equal treatment to their male counterparts. Therefore, equal treatment of women ICT employees can be considered by organisational policymakers. For most participants of this current study, the whole idea behind inclusion was to be treated equal to men in the field.

For many participants, involvement in organisational tasks also meant inclusion. Mor Barak (1998) and O'Hara et al. (1994) define inclusion as involvement in decision-making and Miller (1998) also define inclusion in terms of participation in organisational tasks. Involvement was an important aspect for participants, as they preferred to be actively involved in organisational tasks; therefore, involvement provided a sense of inclusion for most participants. Extending my argument in the literature review regarding the ability of an individual to get involved in organisational decision-making (see Section 2.3.1), although participants expected to be involved in decision-making, I believe it depends on other factors as well. While I acknowledge that Mor Barak and O'Hara et al.'s definition makes sense to some individuals employed in middle or high positions, I further claim that it is not suitable for all the individuals employed in organisations. Involvement in organisational decisions can depend on an individual's job role and rank. For instance, a lower-level employee is usually not involved in organisational decision-making, but still needs to feel included in the work group.

Notably, for participants, inclusion is also about being treated as equals at work. Many participants (61%) highlighted this particular aspect of inclusion since they did not always experience equal treatment as their male colleagues did. This study contributes to the literature by adding that for women ICT employees, inclusion means being treated as equals in the work group. Inclusion is strongly associated with equal treatment. This finding is significant as participants emphasised the importance of gender equality in the ICT profession.

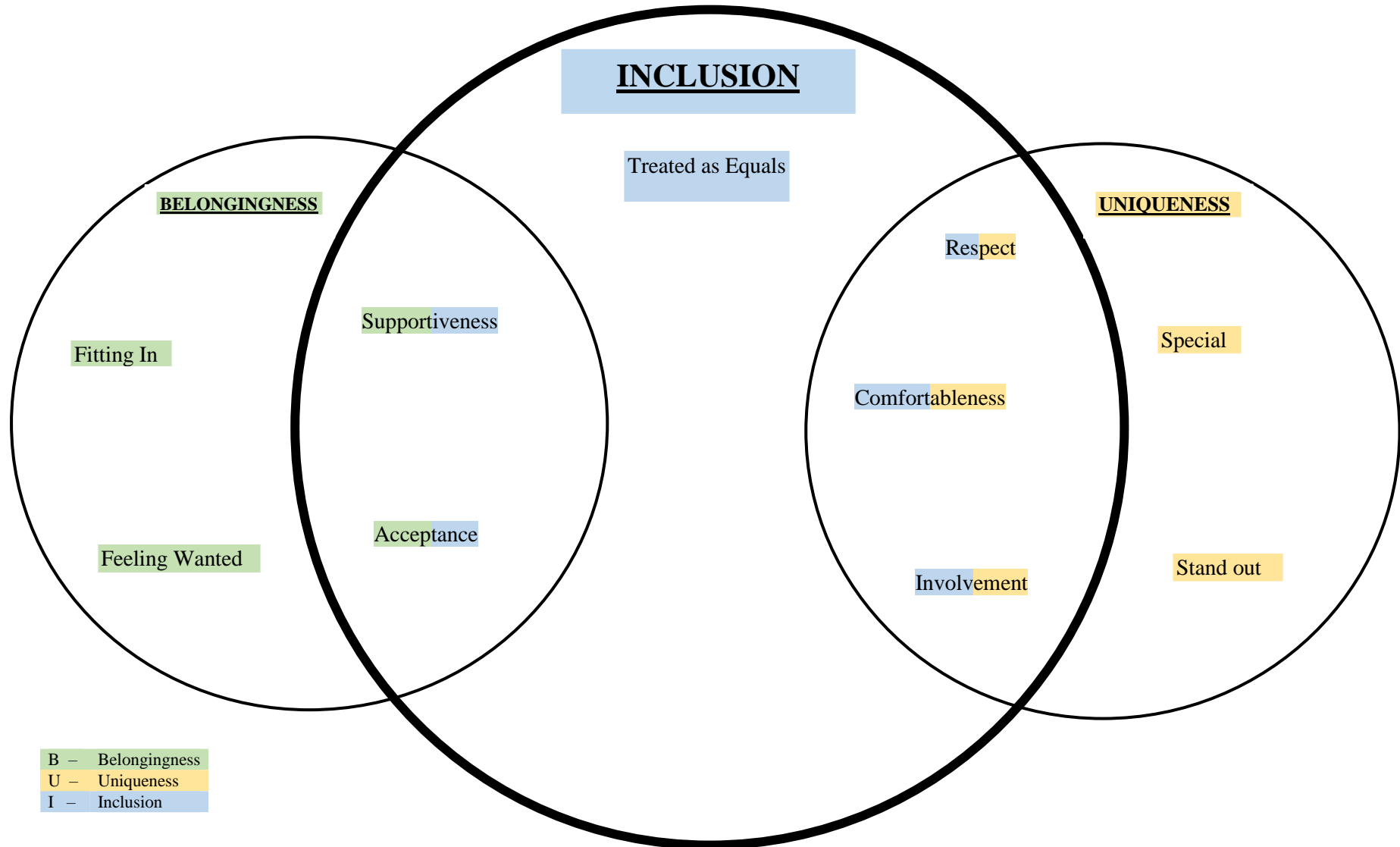
Building on ODT, Shore et al. (2011) define inclusion in terms of belongingness and uniqueness. Yet, it can be asserted that participants did not associate belongingness and uniqueness directly with inclusion. The terms women used to interpret inclusion, which are acceptance and supportiveness are in line with the concept of belongingness, as belongingness reflects accepting the individual and supporting her/him (Chung et al., 2019; Randel et al., 2018; Shore et al., 2011). On the other hand, ideas, such as respect for differences, involvement in organisational tasks, and making individuals comfortable to apply their skills are elements of uniqueness (Ferdman et al., 2010; Groggins & Ryan, 2013; Swann et al., 2003). While participants did not directly associate inclusion with belongingness and uniqueness, it was noticeable that they experienced and perceived inclusion in terms of themes related to belongingness and uniqueness. Based on ODT, Shore et al. identified belongingness and uniqueness as the main themes of inclusion and the findings of the current study demonstrate that participants' descriptions of inclusion support Shore et al.'s interpretation of inclusion.

In Figure 8.2, the meanings attached to each concept are presented. As per the findings of this study, acceptance and supportiveness are associated with the belongingness aspect of inclusion while respect, comfortableness, and involvement

are linked with the uniqueness aspect. For the participants of this study, being treated as equals in the work group directly reflects inclusion, but not through belongingness and/or uniqueness.

Figure 8.2

Meanings Attached to Concepts of Inclusion, Belongingness, and Uniqueness



8.3 The Scope

This section of the chapter explains the scope of belongingness, uniqueness, and inclusion. Participants' feelings about their scope of inclusion, belongingness, and uniqueness are discussed in relation to the literature.

There is a need to form and maintain social relationships that are stable and strong (Chung et al., 2019). It is a basic human need to belong to a stable group and to feel accepted as an insider by its members (Baumeister & Leary, 1995). In male-dominated environments, according to Hatmaker (2013), women are not viewed as a proper fit by other group members and it affects their scope of belonging. In this study, generally, most of the participants (78%) felt as though they belonged to their work group, and some participants could feel as though they belonged to a work group when there were similar members in the work group. For instance, participants felt comfortable when there were more female members in the work group as they could better connect with women as opposed to men in the work group. The literature supports the fact that connectedness to a collective group increases the belongingness of an individual (Chung et al., 2019). This finding is significant for workplaces since it indicates that increased gender diversity of work groups is necessary to increase the scope of belongingness of women in ICT.

The experience of uniqueness comes with the appreciation of the talents and contributions of organisational members (Randel et al., 2018). The findings of this study emphasise that participants considered their contributions, knowledge, perspectives, and skills as their unique features. The ability to bring something different to the table was the goal of many participants. The ability to stand out is supported by Ferdman et al. (2010), as they assert that organisational tasks are better performed when individual contributions vary. While the scope of uniqueness differed

from person to person, the participants believed that they wanted to stand out in some way. The discussion by Lynn and Snyder (2002) is supported by the findings that people aspired to be reasonably different from others, but not completely. Participants (59%) feared the thought of being too different from others, as they perceived it may reduce their chances of assimilating with other members. Participants believed that if they were too unique and showed their uniqueness frequently, they might become an outsider in the work group. Although the literature on uniqueness does not stress the significance of this idea, the findings of this study show that this is a deep concern of many participants. During data analysis, this point came up twice, once when analysing the scope related to uniqueness (the scope of uniqueness) and again when analysing the relationship between belongingness and uniqueness. The fact that participants modulate their uniqueness to suit the environment of the work group was evident. This finding is an addition to the existing knowledge of uniqueness.

It appears that being a woman in the ICT profession is itself a unique feature. Repeatedly, the dominance of men is highlighted through this point. Kenny and Donnelly (2020) claim that male dominance impacts women to the extent that women have concerns about their dress sense as they are uncertain whether they should dress in a masculine manner or a feminine manner. On the contrary, the findings of the current study show some participants who liked to stand out by dressing differently, e.g., different hair colour and dress. It is important to acknowledge that while some participants made an effort to stand out, there were participants who preferred to assimilate by toning down their uniqueness. Alegria's (2019) and McGee's (2018) studies show that feminine skills, such as the interpersonal skills of women, are more appreciated in ICT as women with these skills are often promoted to middle management. Similarly, the findings of the current study indicate that certain qualities

often associated with women, such as empathy and being customer-focused, help women in their jobs. Thus, being a woman in a gender-segregated domain has some benefits to women.

The overall scope of inclusion of participants was satisfactory. All the factors discussed above, belongingness and uniqueness-related factors, contributed to their scope of inclusion. The findings indicate that participants experienced inclusion when they were accepted in the group and when they were able to contribute to organisational tasks. Additionally, findings highlight that most women believed that their female colleagues also experienced inclusion. It was visible that tenure potentially made an impact on the scope of inclusion as participants stated that they did not feel included at the initial stage. This is in line with past studies by Gu and Wang (2012) and Pelled et al. (1999), as they indicate that inclusion varies with tenure.

Those participants who shared negative experiences with regard to inclusion said that they struggled to prove themselves to their work group members. They had to put in extra effort to be included on par with their male colleagues. This finding is similar to discussions in the past studies by Kenny and Donnelly (2020) and Linton (2017). That is, in the male-dominated field, women have to work twice as hard as men to prove their abilities. Concurrently, participants who held senior positions claimed that they felt less included since there were fewer women in leadership roles. From the participants' statements, it was noticeable that they felt included when there were more women in the work group.

In summary, the scope of belongingness, uniqueness, and inclusion was satisfactory. Overall, the findings show that participants feared being too unique, their

scope of inclusion increased with tenure in the work group, and they felt more included when there were more women in the work group.

8.4 Influencing Aspects

This section discusses the factors that influence the experiences and perceptions of participants. Some factors which contribute to the experiences and perceptions of the belongingness of participants are interactions with group members, acceptance in the work group, and being a part of the group. Informal interactions help women learn skills and form friendships (Wright, 2016) especially because women are good communicators and they need communication (Tassabehji et al., 2020). Interactions with group members include helping and caring behaviours of group members, connectedness, and gatherings. Although some women tend to avoid after-work socialising (McGee, 2018; Timms et al., 2008), other women like to participate in lunch and coffee gatherings with their group members. Lunch and coffee gatherings often happen during work hours, which do not conflict with women's family commitments. Participants said that if they were not invited to such gatherings, and if they felt they were left out by other group members, they felt like they belonged less.

The experiences and perceptions of participants were similar when it came to acceptance. They felt that they belonged to their work group when they felt accepted by the work group. The majority (81%) said that they felt accepted by the work group and thus felt they belonged. The fact that participants sensed belongingness when there was acceptance in the work group is aligned with the past discussions by Baumeister and Leary (1995). They explain that being accepted is linked to belongingness since individuals feel positive emotions, such as contentment, and happiness when they are accepted by others.

As reported by Mor Barak (2016) and Tajfel (1974), being part of work group promotes commonality among group members. The findings of the current study provide evidence that feeling part of the work group fosters belongingness to a group as individuals collaborate and contribute to organisational tasks. In addition to the above point, several participants explained that other members made them feel like part of the work group. It was apparent that participants expected the majority of work group members to take the initiative towards building a collaborative group.

A culture that effectively seeks and utilises the opinions and talents of diverse individuals builds a good work group (Nishii et al., 2017). Participants' views suggested that valuing their opinions was a factor that contributed to their sense of uniqueness in the work group. Most of the participants (79%) felt that they were being heard in their work group while only a few (10%) believed that they had to make their voices be heard. The rest of the participants said that their opinions were not acted upon but there were some whose opinions were rejected for genuine reasons, such as lack of funds. The participants stated that when there was an indication that different opinions were encouraged, they contributed more as they did not fear voicing. In many instances, women's opinions appeared to be disregarded in the ICT profession. Women need to have a voice in male-dominated professions (Gregory, 2016). Assertive participants seemed to feel more included than others who were reserved. Openness towards opinions is a positive factor in a work group (Groggins & Ryan, 2013). Therefore, the current study's findings related to valuing uniqueness by encouraging opinions are in line with previous studies by Randel et al. (2018), Roberson (2006) and Shore et al. (2011).

Recognition of women's contributions, knowledge, and perspectives to group tasks is the other main factor that also contributes to their sense of uniqueness. As

Pless and Maak (2004) describe, recognition is a need of every human being. Recognition is a way of showing the value of an individual. The results indicate that when a contribution or a talent of a participant is appreciated by other work group members, the participant felt valued and thus contributed more. Women seek recognition and often women's contributions, knowledge, and perspectives are not recognised by the work group. When participants were not recognised, they sought a work group where they would gain recognition. As Ely and Thomas (2001) discuss, diverse individuals can be recognised as a source of knowledge and innovation as they bring different life experiences with them.

While I acknowledge that all the above-discussed factors shape women's experiences and perceptions of inclusion, through belongingness and uniqueness, the findings show participants (45%) who believed that personality, in terms of self-confidence and introversion, played a role in their inclusion experiences in the work group. Participants claimed that their personality directly impacted the inclusion experiences, and it did not seem like an aspect linked to belongingness or uniqueness. Yet, not many studies highlight the link between personality and inclusion (Daya, 2014). Daya's (2014) study briefly discusses the link between individuals' personality and inclusion, but fails to explain it in detail. Daya states that personality influences inclusion perceptions of individuals and also includes self-confidence as a part of the personality. Hence, the findings of the current study are in line with the points highlighted by Daya, as findings show participants ascribing inclusion issues to personality. For instance, even when provided, some women might not embrace opportunities due to a lack of confidence or introverted nature. It can be asserted that while inclusion is an invitation by other members of the work group, it is also a choice for some participants. It is essential for an individual to feel the need to be included.

According to the participants of the current study, another direct influencer of work group inclusion is participants' culture and upbringing. It was visible that initially, women did not see the ICT profession or certain ICT roles as a potential career path for them. Some participants at the higher education stage did not consider technical roles as ideal for them. However, as discussed in Section 8.1.2, women who were already in the ICT profession liked technical roles. Once they experienced technical work, they tended to develop an interest in it. The cultural upbringing of women is a reason for them to believe that technical roles were only suitable for men. Ahuja (2002) and Serenko and Turel (2021) explain how girls and boys are brought up in different ways. During their formative years, more boys are encouraged to use technology compared to girls. This practice results in men developing their self-confidence while women lack confidence (Ahuja, 2002). Ahuja's and Serenko and Turel's past work is reflected in the findings of the current study. Communication skills and self-confidence, which also can be considered as parts of one's culture (Ilie, 2019), were highlighted by participants as influencing factors to inclusion.

While the current study did not use intersectionality as the theoretical lens to explore ICT women's inclusion experiences, some participants believed that age and social class may intersect with gender to shape women's experiences in ICT. Intersectionality has been discussed in the literature by Acker (2012) and Crenshaw (1989) and the roles that age and social class play in inclusion is a finding that is worth reporting, as these factors emerged from the data. One participant, INC14, expressed that age impacted inclusion and another, INC30, expressed that social class impacted inclusion indicating that these participants believed factors other than gender influence inclusion.

Organisational leaders seem to play a major role in how participants experience inclusion. In practice, diversity and inclusion require a lot of attention from management (Shore et al., 2011). The findings show that a change in the leadership makes a difference in driving inclusion. Management needs to make visible efforts to create a diversity-friendly environment to make all employees feel included. Merely designing good practices is insufficient, as implementation needs to be effective. Initiatives that are designed by top management need to be effectively implemented by middle-level managers (Nishii et al., 2017). Thus, managers are an integral part of building inclusive workplaces (Randel et al., 2016), and need the training to support diversity and inclusive policies and practices. When employees realise that leaders make an effort to create inclusive workplaces, employees stay in the work group. Chung et al.'s (2019) study illustrates that the organisational leaders' efforts to create an inclusive environment bring positive results in terms of improving the helping behaviour of employees and creativity. The findings of the current study support the discussions in previous studies, as they highlight the importance of managers in making individuals feel included in the work group.

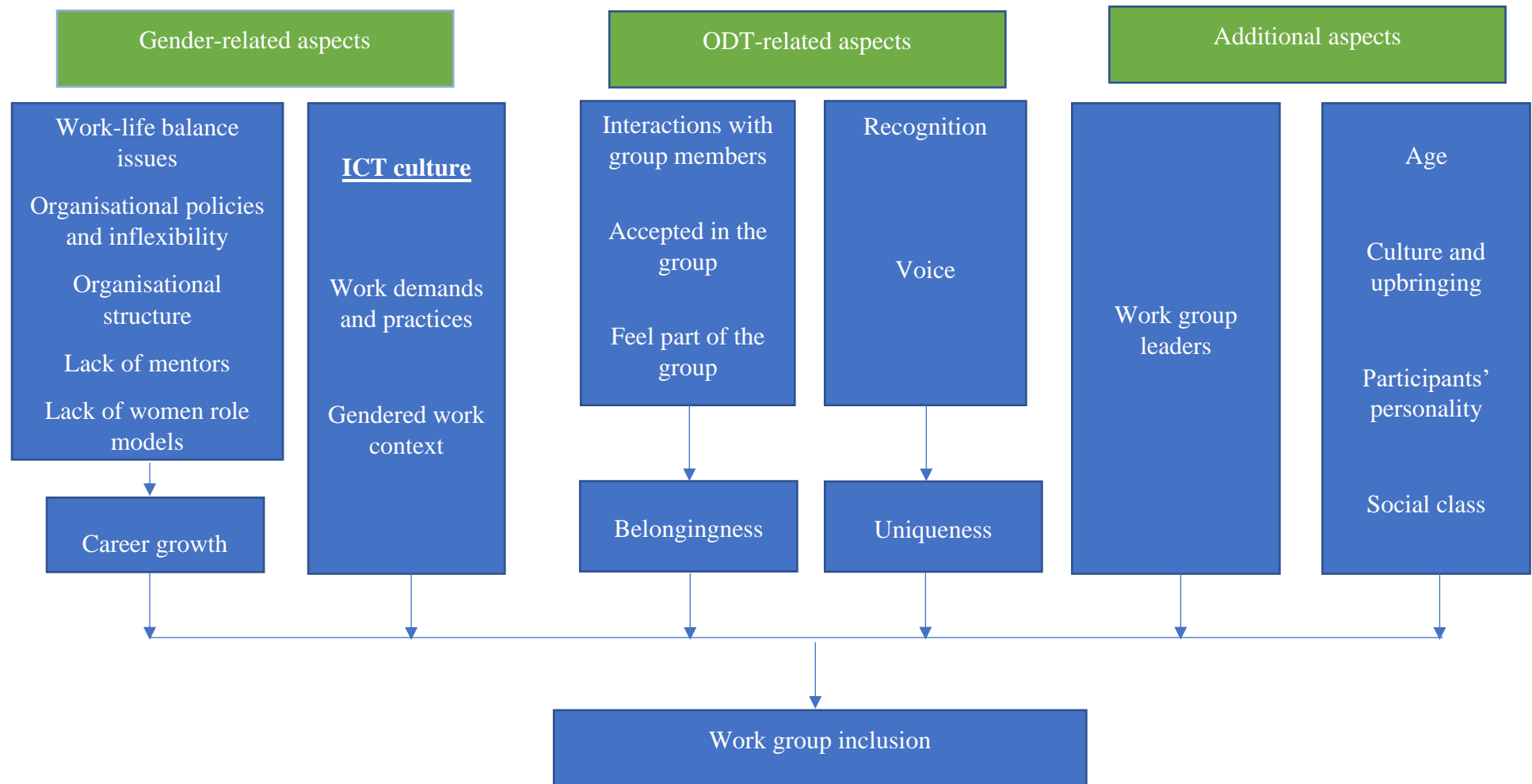
The management of any organisation has a wide role to play in implementing effective diversity and inclusive policies and practices. Managers and the majority members of work groups, i.e.: white men also need to be communicated with about these initiatives and be involved to ensure that they understand, and foster these practices (Nishii et al., 2017). Some participants had left their past employment because they felt excluded in the work group. It was noticeable that the term exclusion was used without any hesitation to describe their experiences. They openly admitted being excluded and having difficulty blending in and voicing their opinions in the past work groups. These participants admitted that their work group leaders did not take

any initiative to create inclusive workplaces. As Randel et al. (2016) state, while every employee should be supported, women need extra support in organisations since women and minorities are the most affected parties due to discrimination. Therefore, as presented by Shore et al. (2011), inclusiveness leadership shapes participants' experiences and perceptions of inclusion.

In summary, interactions with work group members, feeling accepted in the work group, and feeling like a part of the work group contribute to the sense of belongingness and recognition of contributions, whereas the ability to voice opinions contributes to the sense of uniqueness of participants. Participants claimed that their age, culture and upbringing, personality traits, social class, and organisational leaders' efforts directly contribute to inclusion. Shore et al. (2011) assert that ODT-related aspects, such as belongingness and uniqueness influence individuals' experiences of inclusion in a work group. The findings of the current study support these assertions in that, participants described inclusion using attributes of belongingness and uniqueness, and their experiences and perceptions of inclusion were influenced by belongingness and uniqueness-related aspects.

As a study that explored women ICT employees' experiences of inclusion, more factors that influence participants' experiences and perceptions emerged through the findings. These were gender-related aspects, participants' age, culture and upbringing, personality, social class, and work group leaders. While Shore et al. (2011) propose ODT to explore work group inclusion, it is notable that depending on the study field, other theories and/or models may be required to obtain a comprehensive view of the inclusion experiences of participants. Figure 8.3 is a contribution to literature, as it shows the factors that influence the inclusion experiences and perceptions of the participants. The figure shows the ODT and

gender-related aspects that influence the participants' experiences and perceptions of inclusion, as well as the additional aspects that, emerged through the findings.

Figure 8.3*Factors that Influence Participants' Work Group Inclusion*

8.5 The Relationships between Inclusion, Belongingness, and Uniqueness

The findings demonstrate how the participants viewed the relationships between inclusion, belongingness, and uniqueness. ODT explains how individuals feel the need to fulfil their belongingness and uniqueness needs at the same level to feel included in a work group. The participants of this study put forth their own perspectives and views.

8.5.1 Belongingness and Inclusion

According to the findings of this study, belongingness helps inclusion to a large extent. When participants (61%) felt that they belonged to a group, it made them feel included. When a group member of the work group felt like an insider and accepted by other members, it facilitated a sense of inclusion. Similarly, past scholars discuss the influence of belongingness on inclusion. Chung et al. (2019), Ferdman (2017) and Shore et al. (2011) address this point in their studies. Belongingness is a major contributor to inclusion, as no participant said that belongingness was not influencing inclusion. All of them thought that there was a connection between belongingness and inclusion, only the extent of influence differed.

In the light of the current findings, some participants perceived belongingness and inclusion to be the same. “I don't think they're different [belongingness and inclusion]. I think they're the same” (INC20). While the literature indicates belongingness only as a part of inclusion (Shore et al., 2011), in practice, there are individuals (36%) who did not distinguish between the two feelings. In their review paper, Shore et al. propose belongingness as a component of inclusion and uniqueness as the other part. Yet, for ordinary individuals, experiencing belongingness can mean inclusion as they do not see a difference between the two. Similarly, Pelled et al. (1999) define inclusion using terms, such as, acceptance and insider status, which are

attributes of belongingness. Pelled et al. do not use the term belongingness, as they possibly might be assuming inclusion to mean solely belongingness. In a way, it is not completely wrong to define inclusion as acceptance and insider status since, for some participants in this study, belongingness meant inclusion. This finding suggests that there can be differences between theoretical conceptualisation and the perceptions of participants.

Participants' statements were reinforced when they were asked to choose the preferred scenario during the interview. Participants who felt that belongingness alone reflected inclusion, preferred scenario one, which depicts a scenario that only fulfils the need for belongingness. Although the literature links both belongingness and uniqueness to inclusion, e.g., Chung et al. (2019) and Shore et al. (2011), some study participants (36%) believed that belongingness was the same as inclusion. They believed that experiencing belongingness made them feel included in the work group.

8.5.2 Uniqueness and Inclusion

The findings of this study show that participants (47%) perceived valuing uniqueness as being helpful to feel included in a work group. "Yes, I think my uniqueness contributes to my inclusion and because it's something that is needed in my job, to think out of the box" (INC19). When an individual is recognised for her/his contributions, knowledge, and perspectives, is heard, and respected for who she/he is, inclusion in the work group is fostered. Respecting one's difference enables that person to apply her/his differences, such as unique perspectives, knowledge, and skills to organisational tasks. Ferdman (2017) discusses similar points in his study where he explains that one feels included when a person is allowed to be who she/he is without conforming. He adds that valuing differences facilitates the individual to contribute

fully. Chung et al. (2019) and Shore et al. (2011) also discuss similar ideas in their studies.

There were a few participants in this study for whom uniqueness reflected inclusion more than belongingness. Comparatively, a very low number (11%) of participants stated this. As discussed above, the literature does not link uniqueness alone to inclusion. Previous scholars, such as Chung et al. (2019), Ferdman (2017), Randel et al. (2018) and Shore et al. (2011), state that appreciation of uniqueness influences inclusion together with other factors, which are attributes of belongingness. The evidence found in the current study is insufficient to claim that only uniqueness is sufficient for one to feel included. Therefore, it can be suggested that uniqueness alone does not help one feel included in the work group.

Although belongingness has always been linked to inclusion, uniqueness can be viewed as an opposing idea to the concept of inclusion by some participants. While not all women fit into the same mould, the results highlight participants (13%), who believed that uniqueness had no impact on inclusion by any means. These participants claimed that, unlike belongingness, uniqueness had no link to inclusion. They perceived uniqueness and inclusion as two completely different concepts, as they did not see a connection between the two. Scholars, e.g., Chung et al. (2019), Groggins and Ryan (2013), Randel et al. (2016) and Shore et al. (2011), assert that feeling valued for one's uniqueness contributes to inclusion in a work group. While I agree that embracing uniqueness contributing to inclusion is a valid argument, the overall findings of the current study indicate that for some participants, uniqueness does not impact inclusion as much as belongingness does.

8.5.3 Belongingness and Uniqueness

The findings show that 89% of participants considered belongingness to be more important than uniqueness. “Probably belonging is more important” (INC3). It may be a result of their view that belongingness is the same as inclusion and that belongingness helps inclusion more than uniqueness. It is noticeable that most participants desired to fulfil their need for belongingness. Thus, it is a significant finding that most of the participants of this study were happy with the fulfilment of their belongingness needs only. These participants were fulfilled when their work groups made them feel part of it by providing them with the insider status. Interestingly, the literature does not highlight the importance of one need over the other, but rather explains that both belongingness and uniqueness together promote inclusion.

A small number of participants (11%) chose their uniqueness over belonging, but the majority preferred belonging over being unique. Some women liked their uniqueness and did not want to conform in order to belong to a work group. Individuals’ preference to be themselves without conforming is discussed by Ferdman (2017), however, as stated above, past studies have not found this to be a significant finding.

In the literature, belongingness and uniqueness are established as components of inclusion and not as independent factors (Chung et al., 2019; Shore et al., 2018; Shore et al., 2011). The findings highlight that belongingness and uniqueness contribute to each other. Some participants (23%) felt that uniqueness helped them belong to a group. That is, when individuals have different perspectives, knowledge, skills, and talents, it helps them to blend well in a group. Similarly, some participants (67%) felt comfortable to apply their unique talents to organisational tasks when they

felt they belonged to the work group. The literature does not highlight one feeling leading to another. While scholars, e.g., Chung et al. (2019), Randel et al. (2016) and Shore et al. (2011), discuss the impact of both belongingness and uniqueness in inclusion, they do not necessarily discuss the relationship between the two components. Ferdman (2017) discusses belongingness and uniqueness as having an effect of paradox. Accordingly, they are two contradicting needs, which come together to form inclusion. I found a few participants (10%) who believed that belongingness and uniqueness were completely different from each other. This belief supports a paradoxical view, which is explained by Ferdman (2017). When the participants claimed that belongingness and uniqueness were different, they explained that belongingness meant inclusion and that uniqueness was something different from inclusion and belongingness. Uniqueness may seem like a different concept to inclusion, as some participants defined it as exceptional and one-off.

Another significant finding is that occasionally participants preferred not to express their desire to belong or to be unique in the work group. It is quite similar to toning down one's uniqueness to fit into the work group. Their desires to belong and to be unique are controlled at a certain level to avoid any complex situations. Snyder and Fromlin (1980) suggest that an individual seeks a moderate level of distinctiveness from other group members and Ferdman (2017) supports this view in his study. Ferdman explains that an extreme desire to be unique removes the commonality connection point, which binds all the group members together. This was evident in the findings, as participants feared that being too unique might eliminate their opportunity to blend in with others. Women, as a minority in male-dominated work groups, want to belong to the work group, and do not want to lessen the opportunity to blend in by constantly voicing their opinions. At the same time, women also do not like to belong

to work group where they cannot express their uniqueness. Hence, they like to keep their inner desire to belong and to be unique at a moderate level.

8.5.4 Belongingness, Uniqueness, and Inclusion

The findings from the three scenarios presented to the participants propose that more than half of the participants (62%) prefer both belongingness and uniqueness needs to be fulfilled by work groups and their leaders. Women ICT employees like to connect and interact with other group members, fit into the group, be accepted, and feel wanted while they ideally retain their unique selves, get to stand out through their unique contributions, knowledge, and perspectives to the group, and voice their opinions without any fear. However, due to the lack of practicality of this idea, they understand that it is difficult to create such a sound work group in the workplace. Although a combination of both belongingness and uniqueness certainly impacts inclusion in an ideal situation, it is not practical to expect such perfection in reality. Hence, most of the participants preferred their belongingness needs to be fulfilled. It was apparent as women in a male-dominated profession, most of them associated belongingness with inclusion.

Optimal Distinctiveness Theory explains that inclusion is the fulfilment of both belongingness and uniqueness needs at the same level until the balance is reached (Shore et al., 2011). If organisations expect to improve work group inclusion of women in ICT, both belongingness and uniqueness need to be fulfilled as both components are important (Brewer, 1991, 2003; Chung et al., 2019). However, in practice, the situation is divergent. Individuals cannot expect both needs to be satisfied at the same level. The primary expectation is to belong to their immediate work group, as it is perceived as helpful to be included to a large extent. Contrary to the literature, which suggests that the need to fulfil one need is activated when the other is satisfied

(Mor Barak, 2000; Pickett et al., 2002; Shore et al., 2011), it is not so specific. As suggested by the participants in this study, most of them did not feel the urge to fulfil their uniqueness needs at the same level as their belongingness needs. Most participants in this study were satisfied with their belongingness needs fulfilled by work groups, as their main intention was to blend in with other members. There were women for whom only one need was important, which is belongingness and if that need is satisfied, they were happy to be in the work group. As I had suggested in the literature review (see Section 2.3.7), the majority of individuals seek belongingness (assimilation) as a means to inclusion, and they perceive it to be inclusion. As far as satisfying their needs are concerned, the achievement of a balance was not highlighted by participants. However, their inner desire to show their uniqueness is balanced with belongingness in order to blend in. Moreover, an increased level of belongingness does not necessarily imply a reduction in uniqueness (Hornsey & Jetten, 2004). On the other hand, it certainly adds value if the uniqueness need also can be satisfied.

In summary, the current study contributes to the literature through significant findings related to the inclusion of women in ICT. For the participants of the current study, belongingness and uniqueness can complement each other, their desire for uniqueness is toned down when working in groups, they do not prefer to belong at the cost of losing their uniqueness, belongingness can be perceived as inclusion, and for the majority of participants, belongingness is more important than uniqueness. While Shore et al. (2011) define inclusion in terms of satisfying individuals' need for belongingness and uniqueness, the majority of participants of this study desired to fulfil their belongingness needs. Concurrently, participants did not desire to achieve one need when the other was fulfilled. Ideally, participants would like to get their needs for belongingness and uniqueness fulfilled, however, according to them, since

the fulfilment of both needs lacks practicality, the fulfilment of their belongingness needs was sufficient for them. As per the findings of the current study, the process explained by ODT, which is the activation to fulfil one needs when the other is fulfilled, tends to lack practicality.

The key findings related to the relationships between the concepts of inclusion, belongingness, and uniqueness are summarised in Table 8.2. The significance of belongingness to inclusion from the perspective of the study's participants is noted in the table. The findings presented are not independent of each other, as there are some overlaps.

Table 8.2

Key Findings of the Relationships between Inclusion, Belongingness, and Uniqueness

Belongingness and inclusion	Belongingness helps inclusion – 61%
	Belongingness is inclusion – 36%
Uniqueness and inclusion	Uniqueness helps inclusion – 47%
	Uniqueness is different from inclusion – 13%
Are belongingness and uniqueness linked?	Belongingness leads to uniqueness – 67%
	Uniqueness leads to belongingness – 23%
Belongingness and uniqueness: Which is more important?	Belongingness – 89%
	Uniqueness – 11%
	Both belongingness and uniqueness are important – 62%

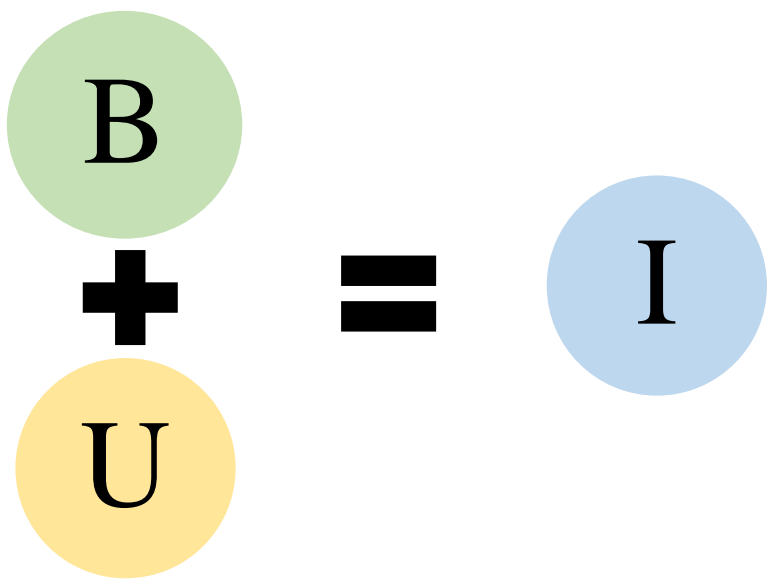
Overall, the findings indicate that most participants are still impacted by gender-related aspects in the profession, primarily define inclusion as being treated as equals, believe they are unique in the profession as women, and prefer to belong to work groups by holding back their desire to be unique. The significant point is that the participants aimed to belong to the ICT profession like men due to the fact that women did not feel equal to men. Gender equality is still far from reality in the ICT profession in New Zealand, as the current findings hint that women expect to be on par with men in ICT.

Figure 8.4 shows the contributions of the current study and presents how participants expect the fulfilment of their belongingness and uniqueness needs. In an ideal world, participants would like both needs to be fulfilled at the same level, but recognising that it is impossible to expect perfection, the majority prefer their belongingness needs to be fulfilled more than their need for uniqueness. The figure illustrates how the process explained by Shore et al. (2011) with regard to ODT, is not so rigorous for the participants of this study. As shown in the figure, in an ideal world, both Belongingness (B) and Uniqueness (U) are required to be fulfilled at the same level to make individuals feel included. For the majority of the participants, the fulfilment of their Belongingness (B) needs makes a bigger impact on their experiences and perceptions of inclusion, which is illustrated with a larger B in the figure.

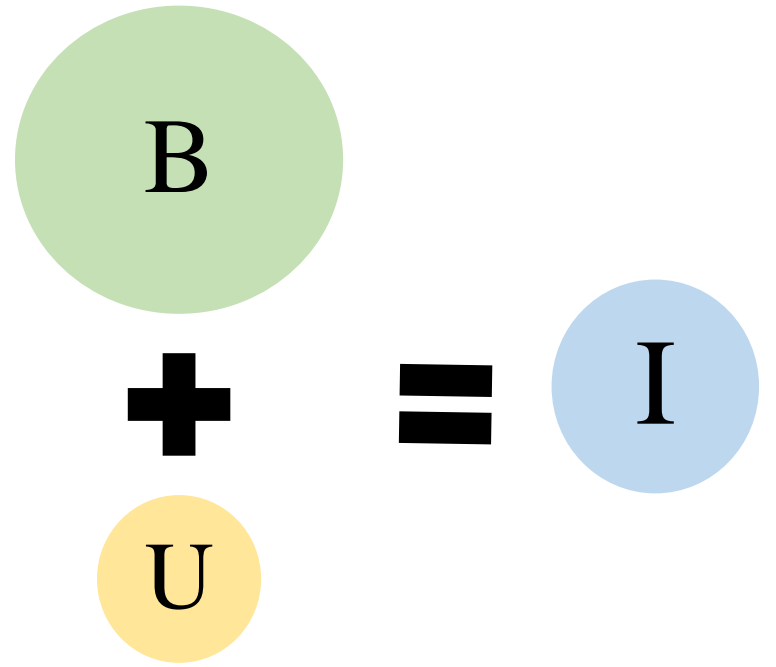
Figure 8.4

The Impact of Belongingness and Uniqueness on Inclusion

Ideal world



In this study



B	-	Belongingness
U	-	Uniqueness
I	-	Inclusion

8.6 Summary

This study was guided by two research questions. The first was to explore how women ICT employees experience and perceive work group inclusion and the second was to study how they view the relationships between inclusion, belongingness, and uniqueness. I was able to identify what inclusion, belongingness, and uniqueness meant for the participants, how included they felt, what they thought about belongingness and uniqueness, and what influenced their experiences and perceptions. The findings show whether the participants' opinions were accepted or rejected, their contributions, knowledge, and perspectives were recognised, and how they felt about group interactions, and whether they felt like part of the work group and accepted by other members. Findings related to the second question of the study, which was about the relationships between inclusion, belongingness, and uniqueness, also were salient. I was able to understand what type of relationships participants identified between the three concepts, whether they felt that both belongingness and uniqueness needed to be fulfilled, whether they felt that belongingness and uniqueness were connected, and their thoughts about an ideal work group.

In this chapter, I have provided a comprehensive view of the participants' experiences of work group inclusion. The findings support past studies to a certain extent as women feel that fulfilling both belongingness and uniqueness needs at the same level would be ideal, but that this might not be practical as explained in ODT. Therefore, most women ICT employees preferred their belongingness needs to be satisfied by the work group as they perceived it to be a huge contributor to, or as same as, inclusion. However, if the need for uniqueness also could be satisfied, it was the ideal work group setting that they were aiming for. Belongingness needs can be satisfied by encouraging interactions between group members, making every

individual a part of the work group, and making them feel accepted. Uniqueness needs can be satisfied by providing women ICT employees with the ability to voice opinions, contribute to organisational tasks through their unique contributions, and recognising their contributions, knowledge, and perspectives.

Further, a significant finding of this study identifies the gender-related aspects that influence the inclusion of women ICT employees. The lived experiences of women show many factors that influence participants' experiences and perceptions of inclusion. Work-life balance issues, organisational policies and inflexibility, organisational structure, lack of mentors, and women role models impact participants' career growth. Work demands and practices, and gendered work context create an unfavourable ICT culture for participants. The fact that participants' career growth is impacted by negative factors and the fact that the ICT culture is unfavourable to them, impact their experiences and perceptions of inclusion. The gender-related factors identified in the findings of this study are closely related to some of the themes in Ahuja's (2002) model. This finding adds to the literature on inclusion.

Additional factors that emerged from the findings include work group leaders' efforts, women's age, culture and upbringing, personality, and social class. The participants of this study stated that these additional factors influence their experiences and perceptions of inclusion.

The current study highlights that women in the ICT profession expect gender equality highlighting that the inclusion experiences of women ICT employees can be improved in work groups. HRM personnel are mostly responsible for designing and implementing diversity and inclusive policies and practices in organisations. Therefore, I provide recommendations for HRM personnel to improve the experiences

of work group inclusion of individuals, specifically for women in ICT in the concluding chapter, Chapter Nine.

Chapter Nine: Conclusion

9.0 Overview

This study was driven by two main research questions. The first research question is: How do women ICT employees experience and perceive inclusion in their work group? The second research question is: How do women ICT employees view the relationships between inclusion, belongingness, and uniqueness? This study explored the participants' experiences through the lens of ODT, which explains how an individual desires to balance between belongingness and uniqueness to feel included in a work group.

The findings identified how women ICT employees perceive inclusion, what factors influence their experiences and perceptions of inclusion, and how they view the fulfilment of belongingness and uniqueness needs in a work group. Participants perceived inclusion through the attributes of belongingness and uniqueness. The balance, explained in ODT, is not accurate in practice for the participants in this study. Furthermore, the findings suggested that gender-related factors, such as aspects that hinder women's career growth and aspects that create the ICT culture, impact women's experiences and perceptions of work group inclusion in ICT. Participants also identified age, culture and upbringing, personality, organisational leaders' efforts, and social class as influencers of work group inclusion.

The findings of this study contribute to the literature on gender and ICT, and diversity and inclusion by advancing knowledge of women's experiences of work group inclusion in the ICT field. Identifying the factors that influence women ICT employees' inclusion is a significant contribution to the literature and practice.

This chapter concludes the study and comprises the following sections: a summary of the findings; theoretical contributions and practical contributions; limitations of the study; and directions for future research. Theoretical and practical contributions present the contributions made by this study to advance knowledge on gender and ICT, and diversity and inclusion.

9.1 Summary of Findings

The statistics of women ICT employees in New Zealand are worrying, as the numbers show a decrease. The number of women ICT employees in New Zealand has decreased from 24% in 2006 to 21% in 2018 (Statistics New Zealand, 2020). In work groups, diverse individuals, like women, can be excluded by the dominant group members (Mor Barak, 2000). Thus, as the minority, women in ICT are more likely to feel excluded in the work group context. In order to understand women's inclusion experiences in ICT, 36 interviews were conducted with women ICT employees in New Zealand. A semi-structured interview guide was used to gather data, which was thematically analysed using NVivo 12. Themes were generated and organised to provide a comprehensive view of the inclusion experiences of women ICT employees.

Findings relevant to the first research question of this study are reported in Chapters Five and Six. In response to the first question, it can be asserted that participants experienced and perceived inclusion in terms of belongingness and uniqueness, but there were factors other than belongingness and uniqueness that influenced participants' overall experiences. Participants perceived inclusion in terms of acceptance, being treated as equals, comfortableness, involvement, respect, and supportiveness. While they did not directly connect belongingness and uniqueness to inclusion, a salient feature was that most of the terms used by participants to describe inclusion were attributes of belongingness and uniqueness. Acceptance and

supportiveness can be linked to the belongingness component of inclusion, and comfortableness, involvement, and respect can be linked to the uniqueness component of inclusion (see Figure 8.2). Belongingness was described as fitting in and feeling wanted by the work group members, and uniqueness was described as being special and standing out in the work group. A phrase that was directly linked to describe inclusion was 'being treated as equal', as most participants described inclusion as being treated equally to men in the work group.

Participants believed that tenure made an impact on the scope of inclusion, as it took time to become familiar with the work group. At the same time, women ICT employees worked harder to prove their capabilities in the male-dominated profession and felt included when there were more women in the work group. It was noticeable that participants did not like being too unique in the work group as they believed that it reduced their chances of belonging to the work group.

Participants' experiences and perceptions of inclusion were influenced by many factors (see Figure 8.3). Belongingness-related factors were interactions with group members, feeling accepted by other members and feeling part of the work group. Uniqueness-related factors were recognition of their contributions, knowledge, and perspectives and voicing their opinions. Additional factors were age, culture and upbringing, personality, social class and work group leaders. Participants linked their personality to inclusion, as they believed inclusion was a choice for some individuals who were not making an effort to feel included. Participants reported their gender was relevant to their experiences and perceptions and gender-related factors were categorised under two main categories: women's career growth and ICT culture. The factors that impacted participants' career growth were lack of mentors, lack of women role models, organisational policies and inflexibility, organisational structure, and

work-life balance issues. ICT culture was created by gendered work context, and work demands and practices, which were unfavourable to women. Thus, the findings of the current study indicate that factors that impact women's career growth and ICT culture may influence the inclusion experiences of women in ICT.

The findings relevant to the second question of this study are reported in Chapter Seven. In response to the second question, it can be asserted that participants mostly associated inclusion with belongingness. Most participants stated that belongingness helped them feel included and some also stated that belongingness and inclusion were the same. Uniqueness was identified as helpful to feel included in a work group, but the majority preferred belongingness over uniqueness. If their desire to belong was satisfied by the work group members, most of them felt included. Optimal Distinctiveness Theory explains that when an individual's needs for belongingness and uniqueness are fulfilled at the same level, they feel included. Participants, however, did not feel the need to fulfil one need when the other is fulfilled. While they acknowledged that the fulfilment of both belongingness and uniqueness would be perfect, they did not expect it, as they understood that it was very unlikely to happen. Hence, if they were to choose, the majority would choose belongingness over uniqueness. Concurrently, the findings demonstrate that belongingness and uniqueness may complement each other, in that belonging can help one express her/his uniqueness and valuing uniqueness can help individuals belong to the work group. Some participants modulated their uniqueness to suit the situation as they thought it was necessary to do so, in order to belong. There were a few participants who believed that uniqueness was different from inclusion.

9.2 Contributions of the Study

This section presents the theoretical and practical contributions that this study makes. Theoretically, the study contributes to the literature on gender and ICT, and diversity and inclusion. In a practical sense, the findings of this study can be useful to policymakers in organisations, such as HRM personnel, to improve policies concerning diversity and inclusion.

9.2.1 Theoretical Contributions

Existing work on gender and ICT, e.g., Ashcraft & Cohoon (2017), Bosch et al. (2021), Cheryan and Plaut (2010), Crump et al. (2007), Gregory (2016), Kirton and Robertson (2018), Kossek et al. (2017), McGee (2018), Serenko and Turel (2021) and Trauth (2013), indicate that the ICT field is gendered. As discussed in Chapter One, women in ICT are a minority in the field and their experiences have not been explored adequately in the existing literature (Kenny & Donnelly, 2020; Timms et al., 2008; Trauth, 2013). This called for more exploration of women in ICT using existing or new theories (Trauth, 2017). In order to avoid labour shortage in the ICT field, it is important to attract more women ICT employees (Mennega & de Villiers, 2021; Serenko & Turel, 2021). Concurrently, the utility of inclusion is limited both theoretically and practically due to the lack of knowledge on this subject (Shore et al., 2018; Shore et al., 2011). Therefore, more research on inclusion was required to advance knowledge in this context (Mor Barak, 2015; Shore et al., 2018). While I have extensively searched for studies that focus on the inclusion of women ICT employees through the theoretical lens of ODT, owing to human error, I might have unintentionally overlooked some research. Considering the need for more research in these two fields, gender and ICT, and diversity and inclusion, this study explored women ICT employees' experiences and perceptions of work group inclusion and how

they view the relationship between inclusion, belongingness, and uniqueness. The current study contributes to the literature by providing a comprehensive understanding of the inclusion experiences of women in ICT through the lens of ODT.

9.2.1.1 Gender-related Aspects and Inclusion. Studies which link gender-related aspects to inclusion are limited. Armstrong et al. (2018) discuss the need to create inclusive workplaces by improving gender-related aspects, such as lack of models and institutional structures. In their study, which extends a portion of Ahuja's (2002) model, they address all of the factors that are discussed under women's career growth and ICT culture in the current study. In the current study, the gender-related aspects are discussed by exploring the factors that impact participants' career growth, such as lack of mentors and work-life balance issues, and the factors that create the ICT culture, such as gendered work context and work demands and practices (see Figure 8.3). Factors introduced by Ahuja such as work-life conflict and occupational culture are *explored* and *extended* by addressing them in relation to inclusion. The findings of this study indicate that ODT is inadequate to understand employees' experiences of work group inclusion in the ICT field, which prompted me to include some themes in Ahuja's model to interpret the participants' experiences. As a study that focused on women in ICT, a model relevant to the field of ICT was required for data interpretation and Ahuja's model was helpful for this. A unique feature of the current study is that it combines ODT and themes in Ahuja's model and links Ahuja's themes to inclusion. Hence, this link between gender-related aspects and inclusion is a significant contribution of knowledge to the literature in gender and ICT, and diversity and inclusion.

9.2.1.2 The Primary Definition of Inclusion. The literature defines inclusion as the fulfilment of belongingness and uniqueness needs of individuals (Shore et al.,

2011). While this is a well-accepted definition, the findings show evidence that participants primarily defined inclusion as being treated as equals and emphasised this when describing inclusion. This is a contribution to the literature on inclusion and was probably evident in this study due to the fact that participants worked in a male-dominated field. Participants felt that they were discriminated against and thus, wanted to be treated as their male colleagues in work groups. Generally, participants felt inequalities concerning their career growth and in the ICT culture. Globally, fewer women are engaged in IT-related work compared to men and women may not be considered equal to men in ICT (Hardey, 2019). Thus, for most of the participants of the current study, inclusion meant being treated equally to their male colleagues and has added a novel meaning to inclusion through this study's participants' experiences and perceptions.

9.2.1.3 ODT as the Main Theoretical Lens. Furthermore, through qualitative evidence, this study adds knowledge to refine the ODT. For the purpose of this study, ODT was adopted from the social-psychological field and applied to the management field, or more specifically, the ICT profession. To the best of my knowledge, this theory had not been studied in the ICT field, particularly in the New Zealand context, hence this is a significant contribution to the literature. It was found that for participants in this study, the activation of needs was not as rigorous as explained in ODT. Most participants felt included when their belongingness needs were fulfilled by the work group. It is plausible that they feel this way, as women in IT mostly struggle to blend in with their male colleagues (Hardey, 2019) with the majority considering belongingness more important than uniqueness. Once the need to belong is satisfied, most participants perceived themselves to be included. Although they desired appreciation of their uniqueness, the need is not necessarily activated to fulfil

uniqueness needs at the same level as described by Shore et al. (2011). This finding is a knowledge addition to the literature on ODT.

9.2.1.4 The Link between Inclusion and Personality. From the participants' experiences, another important factor that contributes to inclusion was found. In addition to attributes of belongingness and uniqueness, such as acceptance, interactions, feeling like part of the group, recognition, and voice, participants perceived inclusion by suggesting that personality might have an impact on inclusion. From the review of literature, a strong link between one's personality and inclusion was not found. Daya (2014) briefly acknowledges this connection between individuals' personality and inclusion and the current study findings also suggest this link. While this can be considered as an addition of knowledge to the literature on inclusion, more in-depth exploration is necessary to establish a connection between one's personality and inclusion.

9.2.1.5 Inclusion at the Work Group Level. Only a few studies have explored work group inclusion at the individual level (Chung et al., 2019) and this study adds to the list. Many others have studied inclusion at the organisational level but studying inclusion at an individual level enables the researcher to elucidate how an individual feels about the concept. In this study, discussions around what inclusion means for an individual, what impacts their scope of inclusion, and how they connect belongingness and uniqueness to inclusion are presented in detail.

9.2.1.6 Rich and Thick Data. This study has explored ICT women's experiences and perceptions of work group inclusion in a qualitative manner. Ely and Thomas (2001) and Janssens and Zanoni (2008) used qualitative methods to study inclusion, but most other studies have used quantitative methods. Qualitative data is

rich (Graebner et al., 2012), in-depth, and comprehensive (Janssens & Zanoni, 2008), and aids in privileging women's voices and experiences. By exploring women ICT employees' inclusion in-depth, this study amplifies the voices of women in IT and assists in understanding their lived experiences of working in the field of ICT.

9.2.1.7 Other Key Findings. Three other key findings of this study that are not widely discussed in the literature are the participants claimed to like technical work in the ICT field, participants admitted fearing being too unique in the work group and suggested a link between belongingness and uniqueness. Participants liked to be promoted in the technical path and some claimed that they would prefer to stay in the same job level in order to be engaged with the technical work in the organisation. This finding breaks the long-held stereotype of women as non-technical. Many participants admitted to modulating their uniqueness in order to belong to their immediate work group as they feared to be too unique in the work group. This is an indication that participants did not bring their full selves to work and not being themselves at work can be considered lack of inclusion (Ferdman et al., 2009). The connection between belongingness and uniqueness is another aspect that is not highlighted in the literature on inclusion, but this study provides data to support that these two complement each other. Hence, these three are small but important findings that could be further established by future research.

9.2.2 Practical Contributions

In New Zealand, only 21% of the ICT workforce are women (Statistics New Zealand, 2018, 2020). While the participants believed there was a growth in the number of women entering the field in New Zealand, statistics show a decrease in the proportion of women in ICT. Figure 3.4 shows that the percentage of women ICT employees has decreased from 24% in 2006 to 21% in 2018 (Statistics New Zealand,

2020). It is important to attract and retain more women in the ICT field. Therefore, by creating inclusive work groups, women's experiences in ICT may be improved, thus potentially attracting more women to the ICT field. Understanding the co-existence of two paradoxical concepts, which are belongingness and uniqueness and their roles in shaping the experiences and perceptions of inclusion in the New Zealand context, will be useful for organisations. In a practical sense, the findings will be valuable for inclusive policymakers, such as the HRM personnel in organisations to design and develop better policies and practices.

As a study that interviewed women, the findings show that women in the IT field face various difficulties. As reported by Gregory (2016), big tech giants, such as Facebook and Google, have gender-related issues. It is not practical to expect a big change as a result of diversity initiatives as big companies have tried and have only seen little change (Gregory, 2016; Hardey, 2019). The success of these initiatives not only depends on the content of the training programmes, but also on how committed and prepared the organisation is to handle gender-related issues. Scholars, such as Acker (2006) and Nishii et al. (2017), note that diversity programmes lack goals and accountability. Organisations should be clear as to what they want to achieve, by when, and how they want to do it (Gregory, 2016). Overall, measurable goals can be set and regularly measured. For instance, within the next 12 months, increase women in leadership by a certain percentage and then measure it after 12 months.

9.2.2.1 Gender-related Policies and Practices. The findings indicate that negative aspects related to gender in the ICT profession influence participants' experiences and perceptions of inclusion. This point is briefly discussed in Armstrong et al.'s (2018) study, but the current study provides more empirical data to support Armstrong et al.'s claims. Organisations should understand that women are

disadvantaged in the ICT profession. Policymakers in organisations can consider the factors discussed in Figure 8.3 under gender-related aspects when designing and developing policies. Recognising that women struggle with work-life balance issues, organisational policies can be more flexible, clear boundaries should be set around working hours, and additional paid and unpaid time off can be provided to women. Organisations can be flexible for women with children in terms of parental leave, offer work from home options, part-time work options, help women with access to mental health resources, home-schooling resources, and men could also be encouraged to take parental leave properly. At the same time, women and men without children also should not be loaded with additional work because they seem to be more available than those without children.

Organisational structures should be open to women and women should be trained, developed, and rewarded. Women should be provided with leadership development and internship programmes. Similarly, organisations should encourage women role models/mentors and introduce successful women in ICT to guide women ICT employees. These practices help women advance in their careers in the ICT field.

Similarly, the ICT culture should be favourable to women by organisations working towards reducing harmful work demands and practices and gendered work contexts. Most importantly, considering that women are a minority in many ICT work groups, women can be better supported. There should be a proper grievance management system that allows them to share various harmful incidents such as harassment. After-work gatherings, information sharing, and Friday evening drinking practices should be discouraged and gatherings during work hours should be encouraged. Organisations can improve women ICT employees' experiences by encouraging them to build networks, employee resource groups, creating a culture of

support, empowering them, and implementing fair practices in retention and advancement (Annabi & Lebovitz, 2018; Serenko & Turel, 2021).

9.2.2.2 ODT-related Policies and Practices. Participants' eagerness to belong to their work groups can be considered an indication that the ICT field in New Zealand is yet to reach gender equality. A favourable work environment is required for women to work well and be productive. Ideally, diversity and inclusive practices and policies may cater to both belongingness needs as well as the uniqueness needs of women. Good practices can include making every woman feel accepted as a part of the work group, encouraging interactions between individuals, listening to their opinions, recognising their unique contributions, knowledge, and perspectives, and allowing them to apply their uniqueness to organisational tasks. The uniqueness of women can be valued and encouraged and by doing so, organisations can achieve a competitive advantage. Women's voices and opinions can be encouraged by organisations inviting more women to the table, directly involving women in discussions, providing feedback on women's opinions (Heath et al., 2014), ensuring it is safe to speak up, and rewarding the unique contributions, knowledge, and perspectives of individuals (Chung et al., 2019).

9.2.2.3 Leaders' Involvement. The findings highlighted the importance of work group leaders in creating an inclusive workplace. Leadership development programmes should train leaders to encourage diversity and help employees fulfil their belongingness and uniqueness needs (Chung et al., 2019). Leader inclusiveness can be developed for leaders to be more inclusive in workplaces by providing them with training (Randel et al., 2016), as leaders facilitate inclusion for employees (Boekhorst, 2015; Nishii & Mayer, 2009; Wasserman et al., 2008). Work group leaders can study the factors, which influence the inclusion of women ICT employees (see Figure 8.3),

and encourage factors that have a positive effect, such as interactions between work group members and women's voices and reduce barriers to inclusion, such as organisational policies and inflexibility.

9.2.2.4 Additional Policies and Practices. Furthermore, organisational policymakers can consider the impact that age, culture and upbringing, personality, and social class have on women's inclusion experiences in the profession. Hence, when developing and designing policies, women regardless of their differences, should feel included in work groups. Encourage employees of all age groups, from different cultural & social backgrounds to participate in organisations. Some good practices include: refraining from over-identifying personality traits with specific generations or cultures or social class; avoiding terms, such as 'boomer' and 'millennial'; reviewing job descriptions; avoiding words, such as 'fresh', 'high-energy', and 'digital native'; reflecting a mix of individuals in employer branding — on careers pages, employee profiles and other recruiting collateral; avoid asking for personal questions in your application process unless you have a clear business need to do so; be mindful that there are introverts; encourage communication; and help them to develop their communication skills.

9.2.2.5 Relevance to Initiatives in New Zealand. Similar to many other parts of the world, Crump et al. (2007) state that the number of women entering the IT field is low in New Zealand. Further, they discuss that, at the university level, more male students take up IT-related courses than female students. Women's lack of desire for ICT-related job roles was evident in the findings as well. Not many participants had intended to choose a career in IT due to the belief that it was not the right choice for women. New Zealand encourages more women into ICT through various programmes

conducted in schools and universities and the participants also confirmed this initiative. The programmes currently in place might not be sufficient, as statistics do not show an increase in the number of women in ICT in New Zealand. More social media-oriented promotions targeting younger women, such as secondary school students, to enrol in ICT-related tertiary programmes, may assist this endeavour in New Zealand. This study focused on the experiences and perceptions of work group inclusion of women in the New Zealand ICT field and thus, contributes to such initiatives by identifying the key issues faced by women in ICT organisations and how their needs can be met. Future initiatives can employ the findings of the current study to address women's concerns.

9.3 Limitations of the Study

This study has provided a comprehensive understanding of women ICT employees' inclusion experiences in New Zealand and contributed to knowledge by highlighting several previously unexplored aspects of women's experiences of inclusion in ICT. However, as with any study, this study also has limitations. Information on the type of organisation the participants were employed by was not collected. As a result, in-depth details about the group the participants worked in, such as the ethnic and racial composition of the work groups, was not captured. Therefore, some other important factors, such as race that may have impacted the experiences of participants have not been analysed. This limitation is similar to Sessler and Bilimoria's (2013) study, as they also did not capture details about the participants' work group. Sessler and Bilimoria investigated how the three work group perspectives toward diversity theorised by Ely and Thomas (2001), discrimination-and-fairness, access-and-legitimacy, and integration-and-learning, are associated with minority group members' inclusion experiences. If more factors, such as ethnic and racial

compositions were studied and identified in the current study, a different picture of the inclusion experiences of ICT women may have been captured. At the same time, Ferdman et al. (2010) acknowledge that inclusion is constructed by an individual through the experiences she/he gains in a work group. Therefore, it is the experiences of an individual that develops her/his perceptions of inclusion and sufficient information was obtained to present the overall experiences of participants.

A set of attributes was developed by Chung et al. (2019) to explore work group inclusion. They reviewed literature related to the concepts of belongingness and uniqueness to identify themes and tested them empirically to develop a 10-item measure of work group inclusion. This set of 10-item measure comprises attributes related to both belongingness and uniqueness. However, the article was published in 2019 when the data for the current study had been collected and analysed in 2018. It was not plausible to use the attributes developed by Chung et al. for the current study. Although this is considered as a limitation, I believe that it might not have made a large impact on the findings since there are similarities between the attributes that were used in the current study and the ones developed by Chung et al. The insights of Chung et al.'s work were valuable in the analysis of the data to interpret participants' views.

Participants identified themselves as ICT employees and they came from a variety of industries. Thus, not every participant was from the core ICT industry itself, i.e. the organisations they worked in were not necessarily in the ICT sector, but they were engaged in an IT-related job. Participants from the ICT sector itself may have been better research study candidates as their entire organisational environment would be IT-related, but this might have limited the number of participants. This may have impacted the results because of the variety of contexts the participants had experienced. However, Timms et al. (2008) took a similar approach in that their study

also involved women in the ICT sector and those who were ICT employees in other sectors. Their study provides significant findings related to women ICT employees' perceptions in the Australian ICT industry. The approach Timms et al. took in their study enabled them to reach a wider group of participants providing them with additional insights into women's experiences, as this study did.

Furthermore, the recruitment of participants was done through advertisements published in IT groups and networks of my personal contacts. This was done with the hope that the advertisement reached every woman ICT employee. However, this may not have been the case. Participants who may have thought that their story needed to be shared, may have participated. Others may not have necessarily felt the need to participate. Therefore, the collected data may not be an exact representation of women in the ICT industry in New Zealand, as participation mainly depended on their willingness to participate. The findings are also based on the ideas and views of 36 women participants. The number may seem insufficient, yet saturation was reached providing a good understanding of participants' experiences, perceptions, and views.

Despite the above-discussed limitations, this study was able to answer its research questions. The study provides a comprehensive view of women in ICT inclusion experiences, what inclusion means to them, and what matters the most to them out of belongingness and uniqueness.

9.4 Future Research

The findings of this study show that the conditions for women in ICT have not improved much, thus revealing that more work is required in this regard. More research exploring gender and inclusion might provide a stronger connection between these concepts. Additionally, the inclusion experiences of women in ICT can be

studied using a different theoretical lens, such as Social Identity Theory (SIT). This approach may provide different results, which can enhance women's experiences in the ICT profession.

This exploratory study on inclusion found some evidence to show that women in the ICT profession view inclusion in terms of attributes related to belongingness and uniqueness, although in practice they do not define inclusion directly in terms of belongingness and uniqueness. The findings also show that the majority of participants prefer their belongingness needs to be satisfied by the work group, as they associate it more with inclusion. However, future research can advance knowledge on inclusion.

Future research may also explore ODT in other fields, such as engineering, science, and non-technical fields, such as academia, accounting, and sport. This may enable results from these fields to be compared against each other to identify similarities and differences. Another interesting approach is to replicate the current study with males as participants and compare if experiences, perceptions, and views differ according to gender.

Mor Barak (2000) states that inclusion can be studied under different contexts of diversity. I suggest future researchers study inclusion in an ethnically and racially diverse context and also use other dimensions of diversity, such as disability, sexual orientation (LGBTI community), and also in different geographic locations. This allows researchers to compare different perceptions of inclusion.

While inclusion can be studied using different dimensions of diversity, I would also like to see future researchers using different research methods in their studies. The concept of inclusion, especially in relation to gender, could be studied under the qualitative, quantitative, or mixed methods umbrellas. Employing a quantitative

technique, such as a survey in addition to qualitative data, may reinforce the findings, as one method complements the other (Creswell, 2014).

9.5 Summary

As the final chapter of the study, a summary of the findings answering the research questions, theoretical contributions, and practical contributions were included. As research, which combined two different research fields, gender and ICT, and diversity and inclusion, this study added knowledge to the literature on women in ICT and inclusion. Additionally, in a practical sense, the study was able to provide suggestions for policymakers in organisations to develop and design better policies and practices to include all women ICT employees in a work group. Nevertheless, the study has its own limitations; thus, practical and methodological limitations were discussed and directions for future research were also included.

9.6 Concluding Statement

Women in ICT are a minority and they need to feel included in their work groups. Inclusion is becoming an increasingly popular topic of research in the academic world, as well as a common practice in the corporate sector. As a researcher, I have seen the growing demand for research based on inclusion and the interest taken by corporates to create inclusive environments over the course of my PhD journey. Various conferences and seminars are organised to broaden awareness about diversity and inclusion, and I have participated in some of them which took place in Auckland (PWC Herald Talks – Diversity and Inclusion; HRINZ, 2017 and 2019 – August Diversity, Inclusion, and Wellbeing). In these forums, I learnt a great deal about what organisations are doing in New Zealand inclusion contexts and I was also heartened to see that inclusion is becoming a focus for other researchers and a desired practice in organisations of all kinds. In the future, I hope that others will continue this research

and refine it to illuminate how ICT can become a more inclusive place for women and work towards a more equitable future for women in both ICT and in general.

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Appendices

Appendix A: Request for Participation

Hi, I'm a Doctoral student at Massey University and my research is about the inclusion experiences of women in ICT. Inclusion is widely used in workplaces as an approach to adapt to the changing demographics of the current workforce. While studies have explored how perceptions of inclusion bring positive organisational outcomes, little is known as to what shapes women ICT employees' perceptions of work group inclusion. Often, women working in the ICT field face many challenges to gain acceptance in work groups. Therefore, I am exploring how women ICT employees experience work group inclusion in terms of belongingness and uniqueness.

I am happy to talk to women ICT employees who are:

- engaged in a permanent, full-time employment,
- currently attached to an organisation in New Zealand,
- has been employed for more than a year and less than 10 years,
- between 18 and 50 years of age,
- part of a work group in the organisation.

If you like to share your views and perceptions, please contact me on 022 653 0636 or m.d.s.perera@massey.ac.nz

Thanks,

Shamalka Perera

Appendix B: Participants' Information

Code	Age group	Ethnicity	Highest qualification	Length of time in the ICT field	Length of time in the current* organisation	Current* job title
INC1	41-50	Middle-Eastern	Master in Information Technology	14 years	6 years	IT Programme Manager
INC2	41-50	Middle-Eastern	Doctor of Philosophy	32 years	1 year 7 months	IT Lecturer
INC3	31-40	Asian	Bachelor of Science	8 years	5 years	Test Engineer
INC4	31-40	Asian	Doctor of Philosophy	16 years	2 years	IT Lecturer
INC5	18-30	Asian	Master in Electronics and Communication	1 year	1 year	Software Engineer
INC6	31-40	European (Greek)	Certificate/Diploma	5 years	7 years	Director - IT
INC7	41-50	Kiwi-Pakeha	Certificate in Business Computing	25 years	1 year 8 months	Project Manager
INC8	31-40	Middle Eastern	Master in Computer Science	17 years	5 years	Project Manager – Information Systems
INC9	61-65	Kiwi - Pakeha	Master in Information Technology	19 years	1 year	IT manager
INC10	41-50	Kiwi - Maori	Certificate in Business Administration	15 years	10 years	IT Governance Manager
INC11	18-30	Asian	Master in Information Technology	2 years	1 years	IT Lecturer
INC12	18-30	Asian	Master in Information Technology	5 years	2 years	Database Administrator
INC13	31-40	Kiwi - Pakeha	Bachelor of Information Technology	2 years	1 year 4 months	IT Support Analyst
INC14	51-60	Kiwi - Pakeha	Diploma in Management	18 years	7 years	Senior Systems Engineer
INC15	31-40	Kiwi - Pakeha	Postgraduate Diploma in	6 years	6 years	IT Administrator

			Information Technology			
INC16	51-60	Kiwi - Pakeha	Master of Business Administration	33 years	5 years 6 months	Director - IT
INC17	18-30	Asian	Master in Information Technology	4 years	3 years	Software Tester
INC18	31-40	Middle Eastern	Bachelor in Computer Engineering	14 years	1 year 6 months	Technical Reporting Analyst
INC19	31-40	European (Irish)	Postgraduate Diploma in Information Technology	17 years	4 years	IT Technician
INC20	41-50	Kiwi - Pakeha	Bachelor in Information Technology	14 years	4 years	Solutions Architect
INC21	18-30	Kiwi - Maori	Bachelor in Information Technology	7 years	2 years	IT Co-ordinator
INC22	41-50	Filipino	Bachelor in Computer Science	23 years	5 years	ERP Solutions Specialist
INC23	31-40	Filipino	Bachelor in Computer Science	13 years	1 year 3 months	Service Desk Analyst
INC24	31-40	Filipino	Bachelor in Information Technology	14 years	5 years	Software Developer
INC25	18-30	Asian	Postgraduate Diploma in Information Technology	6 years	1 year 2 months	Product Test Engineer
INC26	31-40	Filipino	Bachelor in Management	18 years	1 year	SAP Technical Lead
INC27	18-30	Kiwi - Pakeha	Bachelor in Computer Science	3 years	3 years	iOS Developer
INC28	31-40	Kiwi - Pakeha	High school	20 years	4 years	Senior Consultant
INC29	41-50	Asian	Master in IT Management	5-10 years	2 years	Project Manager/Analyst
INC30	18-30	Kiwi - Pakeha	Bachelor in Information Technology	2 years	1 year 6 months	IT Advisor
INC31	41-50	Asian	Postgraduate Diploma in Business Administration	20 years	3 years	Project Manager
INC32	41-50	Kiwi - Pakeha	IT Certifications	33 years	10 years	IT Advisor

INC33	18-30	Kiwi - Pakeha	Bachelor in Information Technology	5 years	1 year	Automation Specialist
INC34	41-50	South American (Brazilian)	Master of Business Administration	24 years	2 years	Senior Analyst Programmer
INC35	18-30	Asian	Postgraduate Diploma in Computing	6 years	2 years 3 months	Monitoring and Response Engineer
INC36	41-50	Kiwi - Pakeha	Bachelor in Computer Science	15 years	2 years	Senior Systems Engineer

* Current: At the time of the interview

Appendix C: Interview Guide



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Interview Schedule - Understanding Inclusion: An Exploratory Study of Women ICT Employees' Experience

Would you like a report on the findings of this study? If yes, please provide the best form of contact:

Section 1: Demographics

- Length of time in ICT industry:
- Length of time in current organisation:
- Age group you belong to:
 - 18-30
 - 31-40
 - 41-50
 - 51-60
 - 61-65
 - Prefer not to say
- Ethnicity:
- Qualifications:
- Job title:
- Do you work in a group environment? Yes/No
- Can you tell me more about that group?
(*size, composition, length of tenure and gender*)

Section 2: General

1. Can you please describe your work?
2. Would you like to talk about the path you took to get to this position? Did you have to overcome any barriers? If yes, did you face any gender issues?
3. Do you have managerial/leadership aspirations? *If yes, please explain. (Optional)*

Section 3: Inclusion

4. One of my goals with this study is to look at how women feel included in the workplace. Can you tell me what inclusion means to you or what it means to be included?

5. Keeping your description in mind, tell me how 'included' you feel in your work group?
(Probe: How accepted/respected does the participant feel in the work group?)

6. Are there any women in your work group who you think are not included? Please explain how.

Section 4: Uniqueness

7. What does the term 'unique(ness)' mean to you?

8. Keeping your description in mind, do you feel you are unique?

9. How unique do you want to be from the rest of the group members?
 - a. On a scale of 1-10 (10 being the highest), how important is it for you to be distinctive from others?
 - b. Would this include doing different things intentionally? If yes, how so?

10. Could you describe an incident where your ideas were accepted or rejected by other members? Have you ever felt that your unique talents and contributions were not being recognised?
(Probe: Did the participant feel that her voice was being heard?)

11. Does this feeling (*of being unique*) make you feel included? If so, what role does it play?

Section 5: Belongingness

12. What does the term 'belonging' mean to you?

13. Thinking of your description, describe how 'belonged' you feel in your work group?

14. Do you feel you are a part of this work group? Yes/No. Please explain your answer
- Do other members of the group make you feel part of it? Yes/No/ Why or why not?*
(Probe: Does the participant feel as an 'insider' or as an 'outsider' in the work group?)
 - Can you describe your experience or feelings?
15. Do you feel 'accepted' by this work group? Have you ever felt being 'left-out'?
- Can you provide an example of this?
 - Does this feeling (*of belonging*) make you feel included? If so, what role does it play?

Section 6: The Balance and Relationship

Summarise what the participant said about uniqueness, belongingness and the importance of these two.

16. Do you think there is a relationship between these in any way? If so, how do describe the relationship/link between being unique and belonging?
17. Some academics have suggested that one's uniqueness and one's need to belong should be '*balanced*' by the individual. Would you agree with that? Academics have also said that both needs (belongingness and uniqueness) should be equally fulfilled by the work group. What do you think? Would you say that one is more important than the other? If one is more important, which one, and is it always more important? When one need is fulfilled, do you feel the need to achieve/satisfy the other?
(Probe: Does the participant feel the need to balance the tension between these two needs)

(After introducing 3 scenarios)

18. Which one of these 3 scenarios is an ideal situation according to you? Why?
19. Which employee do you think feels included in the workgroup?
20. Earlier (Q17), you mentioned that satisfying one need/feeling is more important than other, so why did you select the scenario which satisfies the two feelings equally? (*optional*)

Do you have anything else to add that we have not yet covered related to inclusion, uniqueness, belongingness and or balance?

Thank you!

Appendix D: Scenarios



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Scenario 1:

Bella is working as a systems engineer in an organisation. Although, the majority of her team members are men, her team members are very supportive. She feels accepted by others and thus, as a part of the team. She is never ignored and she is well-connected with the team. However, during meetings, she thinks that her unique opinions and ideas are not taken into consideration. She is discouraged to voice-out her opinions. Therefore, she thinks that her knowledge and skills are not appreciated by other members.

Scenario 2:

Urika is a network engineer in an organisation. She also works in a team where the majority of the members are men. When it comes to work projects, her team members highly appreciate her unique ideas and talents. She is encouraged to take decisions and she feels that her knowledge and skills are recognised. Although, her unique attributes are appreciated, she does not feel as a part of the team. She thinks that she is less-connected with other members and that she is not accepted as a part of the team.

Scenario 3:

Ivanna is an IT production engineer in an organisation. Although the team mostly consists of men, they are very supportive. She feels well-connected, accepted and as an important part of the group. During meetings, she is encouraged to voice-out her opinions and they are always considered for implementation. Her knowledge, skills and unique attributes are always appreciated. She feels that she belongs to the group and that her unique attributes are also recognised at the same time.

Appendix E: Participant Consent Form



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Understanding Inclusion: An Exploratory Study of Women ICT Employees'

Experience

Participant Consent Form - Individual

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to the interview being audio recorded.

I wish/do not wish to have my recordings returned to me.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature:

.....

Date:

.....

Full Name

.....

Appendix F: Ethics Approval Letter

Date: 11 May 2018

Dear Malimege Dilangi Shamalka Perera

Re: Ethics Notification - **NOR 18/17 - Understanding Inclusion: An Exploratory Study of Women ICT Employees' Experiences**

Thank you for the above application that was considered by the Massey University Human Ethics Committee: **Human Ethics Northern Committee** at their meeting held on **Thursday, 10 May, 2018**.

Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Dr Brian Finch
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

Research Ethics Office, Research and Enterprise

Massey University, Private Bag 11 222, Palmerston North, 4442, New Zealand T 06 350 5573;
06 350 5575 F 06 355 7973

E humanethics@massey.ac.nz W <http://humanethics.massey.ac.nz>

Appendix G: Information Sheet



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Understanding Inclusion: An Exploratory Study of Women ICT Employees' Experience Information Sheet

Introduction

Hi. My name is Shamalka Perera, a PhD candidate at Massey University, Albany. My research is about the inclusion experiences of women ICT employees. Inclusion is widely used in workplaces as an approach to adapt to the changing demographics of the current workforce. Achieving inclusion is a goal of organisations with diverse workforces, yet little is known as to what shapes women ICT employees' experience and perceptions of work group inclusion. Therefore, this study explores women ICT employees' experience of work group inclusion in terms of belongingness and uniqueness.

Procedures

- The interview will last a maximum of 90 minutes and will be conducted by the researcher at your convenience.
- The interview will be audio recorded. The recording and transcript will be kept securely with the researcher. Once the research is complete, the data will be destroyed. Your identity will not be revealed to a third party and will not be published or disseminated.
- Please note that no information will be shared with your workplace leaders.

Participant's Rights

You are under no obligation to accept this invitation. If you choose to participate, you have the right to:

- Decline to answer any particular question.
- Withdraw from the study before the interview commences.
- Ask any questions about the study at any time during participation.
- Ask for the recorder to be turned off/paused at any time during the interview.
- Be given access to a summary of the project findings when it is concluded.

Contacts

Feel free to contact Shamalka Perera: m.d.s.perera@massey.ac.nz or the supervisory team:

- Dr. Trish Bradbury - T.Bradbury@massey.ac.nz
- Assoc. Prof. Janet Sayers - J.G.Sayers@massey.ac.nz
- Dr. Rebecca Gill - gillre@wfu.edu

Helplines

If you feel stressed or unhappy after the interview, please note that you can access assistance from the helplines given below:

- [Lifeline](tel:0800543354) – 0800 543 354
- [Healthline](tel:0800611116) – 0800 611 116
- [Depression Helpline](tel:0800111757) – 0800 111 757 or free text 4202

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application NOR 18/17. If you have any concerns about the conduct of this research, please contact Associate Professor David Tappin (Chair), Massey University Human Ethics Committee: Northern, email humanethicsnorth@massey.ac.nz.

Appendix H: Release Agreement



Understanding Inclusion: An Exploratory Study of Women ICT Employees’ Experience

Authority for the Release of Transcripts

I confirm that I have had the opportunity to read and amend the transcript of the interview(s) conducted with me.

I agree that the edited transcript and extracts from this may be used in reports and publications arising from the research.

Signature: **Date:**

Full Name :

Appendix I: E-mail Sent to IT Groups

Hi there,

I am a PhD candidate at Massey University, Albany. My thesis is about the inclusion experiences of women in ICT and I am hoping to select women ICT employees as participants for this study. Therefore, I would like to know if it's possible for me to post a request for participation on your Facebook page and/or on any other platform as it will help me gain access to many IT employees in New Zealand.

If you need more details, please contact me on [REDACTED] or reply to this email.

Hoping to receive a favourable response.

Thanks!

Kind Regards,

Shamalka Perera
PhD Candidate,
School of Management,
Massey University,
Albany
Mobile: [REDACTED]