

**AN EXPLORATORY STUDY OF BOTH THE CAUSES OF
EXCLUSION OF PERSONS WITH PHYSICAL DISABILITIES
FROM EMPLOYMENT AND MECHANISMS TO PROMOTE
THEIR INCLUSION**

by

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An exploratory study of both the causes of exclusion of persons with physical disabilities from employment and mechanisms to promote their inclusion

I declare that the above thesis is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the thesis to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.



Signature

January 2021

Date

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ABSTRACT

An exploratory study of both the causes of exclusion of persons with physical disabilities from employment and mechanisms to promote their inclusion

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Orientation: The study researched physical disability apropos of employment. The attitudes of able-bodied persons towards persons with disabilities (PWD) culminate in the exclusion of the latter from the workplace. Aspects of this topic have been addressed by researchers abroad and in Africa using samples of limited size.

Research aim: The general aim of the research was twofold. Firstly, it set out to uncover the causes of exclusion of persons with physical disabilities from employment in the South African open labour market, and secondly, to identify interventions that could assuage this situation.

Research methodology: A convergent mixed methods research strategy was adopted, with responses of employers forming the quantitative strand and those of persons with physical disabilities (PWPD) forming the qualitative strand. A customer survey questionnaire was developed and validated for the sample of 342 employers, while interview schedules were used for 312 PWPD. Statistical procedures included factor analysis, chi-square tests and structural equation modelling.

Main findings: Meta-inferences were formulated relating to the mixed methods research. The overarching message conveyed discord in respect of several dimensions, between the perceptions of employers, those of persons with physical disabilities and the theory. Employers are receptive to employing persons with disabilities but conflicted about their management, competence and accommodation. They are reportedly unfamiliar with disability matters, and cannot locate qualified candidates, while disability policies are not commonplace. Key national interventions encompass incentives for employers to hire PWD, tax concessions and amendment of the BBBEE scorecard points system. Important interventions at organisational level entail training in disability matters across the board, as well as disability-related policies. At individual level, PWPDP need training in job-seeking techniques, effective avenues to secure work, accommodation and assistive technology, and skills.

To extend the mixed methods research, industrial sectors were compared and latent constructs sought in separate analyses.

Main contributions: Different perspectives gleaned from employers in various sectors, PWPDP, disability advocacy organisations and associated groups; expansion of the literature on disability employment; structural equation modelling that produced latent constructs which underlie the causes of exclusion of PWPDP from employment and enhance understanding of those aspects with a direct bearing on employers' receptivity to hiring PWPDP.

The findings could catalyse national and organisational policy frameworks to promote inclusion in the workplace. Public policy makers could utilise the findings to devise strategies that would motivate employers to hire PWPDP. Organisational policies, with practical guidelines, should be formulated relating to recruitment of PWPDP and disability training for staff. The different types of disabilities and job categories in which employers would be willing to appoint PWD were ascertained.

Keywords: Disability, employment, employers, customised survey questionnaire, attitudes, SEM, thematic content analysis, interventions, policy, industrial sectors.

OPSOMMING

'n Verkenningstudie oor die oorsake van indiensneminguitsluiting van persone met liggaamlike gestremdhede, sowel as maniere om hul insluiting te bevorder

deur

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Oriëntering: Die studie het ondersoek ingestel na liggaamlike ongeskiktheid ten opsigte van indiensneming. Die houdings van nie-gestremde persone teenoor persone met gestremdhede veroorsaak dat laasgenoemde van die werksplek uitgesluit word. Fasette van hierdie onderwerp is deur navorsers oorsee en in Afrika ondersoek met behulp van steekproewe van beperkte grootte.

Navorsingsdoelwit: Die algemene doelwit van die navorsing was tweeledig. Dit het eerstens ten doel gehad om die oorsake van indiensnemingsuitsluiting van persone met liggaamlike gestremdhede in die Suid-Afrikaanse arbeidsmark te bepaal, en tweedens, om ingrypings te identifiseer wat hierdie situasie kan verbeter.

Navorsingsmetodologie: 'n Konvergerende gemengdemetode-navorsingstrategie is ingespan, met werkgewers se response as die kwantitatiewe been en dié van persone met liggaamlike gestremdhede, as die kwalitatiewe been. 'n Kliëntetevredenheidsvraelys is vir die steekproef van 342 werkgewers ontwikkel en geldig verklaar, terwyl onderhoudskedules vir 312 persone met liggaamlike gestremdhede gebruik is. Statistiese prosedures het faktorontleding, chi-kwadraattoetse en strukturele-vergelyking-modellering ingesluit.

Belangrikste bevindinge: Meta-inferensies met betrekking tot die gemengdemetode-navorsing is geformuleer. Die oorkoepelende boodskap was een van verdeeldheid oor verskeie dimensies; tussen werkgewers se persepsies, dié van persone met liggaamlike gestremdhede en die teorie. Werkgewers is ontvanklik vir indiensneming van persone met gestremdhede, maar het verskil oor die bestuur, bevoegdheid en akkommodering van sulke persone. Hulle is blykbaar nie bekend met ongeskiktheidsaangeleenthede nie en kan nie gekwalifiseerde kandidate vind terwyl ongeskiktheidsbeleide nie alledaags is nie. Deurslaggewende nasionale ingrypings behels aansporings vir werkgewers om persone met liggaamlike gestremdhede in diens te neem, belastingvergunnings en aanpassing van die BGSEB-telkaartpuntestelsel. Belangrike ingrypings op organisasievlak behels algemene opleiding in ongeskiktheidsake, sowel as beleide oor ongeskiktheidskwessies. Op individuele vlak benodig persone met liggaamlike gestremdhede opleiding in werksoektegnieke, doeltreffende metodes om werk te verseker, akkommodasie en ondersteunende tegnologie, en vaardighede.

Om die gemengdemetodes-navorsing uit te brei, is nywerheidsektore vergelyk en latente konsepte in afsonderlike ontledings gesoek.

Hoofbydraes: Verskillende perspektiewe wat van werkgewers in verskeie sektore verkry is, persone met liggaamlike gestremdhede, gestremdheidvoorspraakorganisasies en verwante groepe; uitbreiding van die literatuur oor ongeskiktheidsindiensneming; strukturele-vergelyking-modellering wat aanleiding gegee het tot latente konsepte onderliggend tot die oorsake van indiensneminguitsluiting van persone met liggaamlike gestremdhede en bevorderlik vir begrip van daardie aspekte wat 'n direkte invloed op werkgewers se ontvanklikheid rakende indiensneming van persone met liggaamlike gestremdhede het.

Die bevindinge kan nasionale en organisasiebeleidsraamwerke kataliseer om insluiting in die werksplek te bevorder. Openbarebeleidbepalers kan die navorsingsresultate gebruik om strategieë te beraam wat werkgewers sal motiveer

om persone met liggaamlike gestremdhede aan te stel. Organisasiebeleide, met praktiese riglyne, moet geformuleer word ten opsigte van werwing van persone met liggaamlike gestremdhede en ongeschiktheidsopleiding vir personeel. Die verskillende soorte gestremdhede en werkskategorieë waar werknemers bereid sal wees om persone met liggaamlike gestremdhede in diens te neem, is vasgestel.

Sleutelwoorde: Ongeskiktheid, indienseneming, werkgewers, doelgemaakte opnamevraelys, houdings, strukturele-vergelyking-modellering, tematiese inhoudsontleding, ingrypings, beleid, nywerheidsektore.

ISIFINYEZO ESISUKETHE UMONGO WOCWANINGO

Ucwaningo lokulinga kokubili izimbangela zokukhishwa inyumbazane kwabantu abakhubazekile ekuqashweni kanye nezindlela zokuqhubela phambili ukubandakanywa kwabo

ngo

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Isimo nokuqondiswe kukho (orientation) Ucwaningo lucwaninge ngokukhubazeka ngomzimba maqondana nokuhambisana nokuqashwa Imibono yabantu abangakhubazekile maqondana nabantu abakhubazekile ngokubizwa ngokuthi yi-persons with disabilities (PWD) ibangela ukuthi abantu abakhubazekile bakhishelwe eceleni maqondana nemisebenzi. Izingxenye zalesi sihloko kubhekwane nazo ngabanye abacwaningi baphesheya kanye nase-Afrika ngokusebenzisa amasampuli amancane.

Inhloso yocwaningo: Inhloso enable yocwaningo ikabili. Okokuqala, ukuthola izimbangela zokukhishelwa eceleni kwabantu abakhubazekile ekuqashweni eNingizimu Afrika nasemakethe evulekile yezemisebenzi, kanti eyesibili, ukuphawula ngezinto ezingabawusizo ukululamisa lesi simo.

Imetodoloji (indlela) yocwaningo: Kusetshenziswe isu elihlangene lezindlela zocwaningo okuyi-mixed methods research, kanti izimpendulo zabaqashi zibumbe ingxenye ye-quantitative strand, kanti ezalabo bantu abakhubazekile ngomzimba (PWPD) zona zibumbe ingxenye ye-qualitative strand. Kwenziwe i-survey

yamakhasama yase iqinisekiswa ukwenzela isampuli yaqabashi abangu 342, kanti isheduli yama-interview yenziwe kubantu abakhubazekile ngomzimba (PWPD) abangu 312). Inqubo yamastatistiki ibandakanye uhlaziyo lwe-factor analysis, i-chi-square tests kanye ne-structural equation modelling.

Okukhulu okutholakele: Isiphetho ngokujulile i-meta-inferences yenziwe maqondana nezindlela ezixubene zocwaningo. Umlayezo omkhulu owaboniswa ukubhamba maqondana nezinto ezehlukene, phakathi kwemibono yabaqashi, kanye nabantu abakhubazekile ngemizimba kanye nethiyori. Abaqashi bazimisele ukuqasha abantu abakhubazekile kodwa banemibono engqubuzanayo ngokuphathwa kwabo, amakhono kanye nokubabonelela. Abanalwazi ngezinto eziphathelene nokukhubazeka, kanti abakwazi ukuthola amakhandideyiti afundele imisebenzi, kanti imigomo ngokukhubazeka ayikho kahle. Okukhulu okumele kwenziwe ukungenela kwizwe lonke kubandakanya izikhuthazi kubaqashi ukuqasha abantu abakhubazekile, izibonelelo ngentela, kanye nokuchitshiyelwa kwenqubo yamaphoyinti e-BBBEE. Ukungenela okubalulekile ezinhlanganweni kubandakanya uqeqesho ngezinto eziphathelene nobukhubazeki kuyo yonke imikhakha kanye nemigomo ehambelana nokukhubazeka. Kumkhakha wabantu ziqu, abantu abakhubazekile ngemizimba badinga uqeqesho ngamathekniki okufuna imisebenzi, imikhakha efanele yokuthola imisebenzi, izibonelelo, kanye namatheknoloji osizo kanye namakhono.

Ukunweba izindlela ezehlukene zocwaningo, kwaqhathaniswa amasektha ezimboni, kwasekufunwa ama-latent construct ngohlaziyo olwehlukene.

Imithelela emikhulu: Imibono ehlukeni etholakele kubaqashi kumasektha ehlukeni, abantu abakhubazekile ngomzimba (PWPD), izinhlango ezigqogquzelela abantu abakhubazekile kanye nezinye ezihambisana nazo, ukungezelwa kwilitheresha (kwimibalo) ngokuqashwa kwabantu abakhubazekile, i-structural equation modelling okwaveza ama-latent constructs ayisendlalelo sembangela yokukhishelwa ngaphandle kwabantu abakhubazekile ngomzimba ekuqashweni kanye nokuthuthukisa ukuqondisisa kwalezo zingxenyane

ezinomphumela oqondane ngqo nendlela abashi abemukela ngayo ukuqasha abantu abakhubazekile ngomzimba.

Le miphumela ingaba nomthelela kuhlaka lukazwelonke lwemigomo yezinhlangotho ukuqhubela phambili ukubandakanywa emisebenzini Abenzi bemigomo kahulumeni bangasebenzisa okutholakele ngocwaningo, ukwenza amasu angagqugquzela abaqashi ukuqasha abantu abakhubazekile ngomzimba. Imigomo yezinhlangotho, ehambisana nemikhombandlela (ama-guideline) abambekayo kumele kwenziwe maqondana nokugqugquzela ukuqashwa kwabantu abakhubazekile emisebenzini kanye noqeqesho lwabasebenzi ngobukhubazeki. Izinhlobo ezehlukene zobukhubazeki kanye namakhathegori emisebenzi lapho khona abaqashi abangazimisela ukuqasha abantu abakhubazekile nakho kwaqinisekiswa.

Amagama abalulekile: Ubukhubazeki, ukuqashwa, abaqashi, i-questionnaire ehlelwe ngokulandela isidingo, imibono, i-SEM, uhlaziyo lwe-thematic content, ukungenelela, umgomo, amasektha ezimboni.

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CHAPTER 1

SCIENTIFIC ORIENTATION TO THE RESEARCH

In the words of the famous late physicist, Professor Stephen W. Hawking:

Disability need not be an obstacle to success. I have had motor neurone disease for practically all my adult life. Yet it has not prevented me from having a prominent career in astrophysics and a happy family life...I have benefitted from access to first class medical care. I rely on a team of personal assistants who make it possible for me to live and work in comfort and dignity. My house and my workplace have been made accessible for me. Computer experts have supported me with an assisted communication system and a speech synthesizer which allow me to compose lectures and papers, and to communicate with different audiences...My success in theoretical physics has ensured that I am supported to live a worthwhile life. It is very clear that the majority of people with disabilities in the world have an extremely difficult time with everyday survival, let alone productive employment and personal fulfilment...In fact we have a moral duty to remove the barriers to participation, and to invest sufficient funding and expertise to unlock the vast potential of people with disabilities. Governments throughout the world can no longer overlook the hundreds of millions of people with disabilities who are denied access to health, rehabilitation, support, education and employment, and never get the chance to shine (WHO, 2011, p. ix).

The rationale for this research resonates with the following statement of a former president of South Africa, T. M. Mbeki:

Among the yardsticks by which to measure a society's respect for human rights, to evaluate the level of its maturity and its generosity of spirit, it's by looking at the status that it accords to those members of society who are most vulnerable, disabled people, the senior citizens and its children. The concept of a caring society is strengthened and deepened when we recognise that disabled people enjoy the same rights as we do and that we have a responsibility towards the promotion of their quality of life. We must stop

seeing disabled people as objects of pity but as capable individuals who are contributing immensely to the development of society. We must play an active role in working with them to find joy and happiness and the fulfilment of their aspirations (RSA, 1997b, p. i).

1.1 BACKGROUND TO THE RESEARCH

The aim of the study was to identify the causes of exclusion of persons with disabilities, physical disabilities in particular, from employment and to devise strategies to rectify the situation. It was envisaged that these causes could be addressed by interventions to facilitate compliance with equity targets in respect of employment of persons with disabilities. This would simultaneously enhance fairness in the workplace and the quality of their lives.

Perceptions of employers in the formal private sector of the South African open labour market as well as those of persons with physical disabilities formed the core of the study. Advocacy organisations and associated groups were also invited to comment in order to augment the data collected.

The study focused on physical disability as a phenomenon, particularly by type and severity of the disability. Disability ostensibly affects the attitudes of able-bodied persons and culminates in exclusion of persons with disabilities from employment. The motivation for the study emanated from the researcher's close, frequent contact with persons who have acquired disabilities as a result of injuries sustained in motor vehicle collisions. In many cases, these individuals have retained an ample residual work capacity, yet they experience barriers to enter or re-enter the open labour market.

The study of disability has been dominated by efforts to understand the experience of persons with impairments through individual and biomedical models which emphasise health conditions that result in personal loss. However, these have marginalised persons with disabilities in respect of social, economic and political opportunities. Disability development experts and researchers are needed to

research and debate disability issues in South Africa, in order to facilitate societal transformation (Lorenzo, Toni, & Priestley, 2006).

1.2 RESEARCH PROBLEM STATEMENT

The body of scholarship studied that addressed the employment of persons with disabilities intimated that they experience exclusion from the workplace. Also, the policy framework does not appear to have yielded the desired results, both on the international and national landscape. In the 19th Annual Report of the Commission for Employment Equity (2018-2019) the following conclusion was drawn:

It is noticeable from the trend analysis on the representation of Persons with Disabilities over the past three years that little progress is being made in increasing the representation of Persons with Disabilities in the workforce across all occupational levels.

According to the WHO (2011), persons with disabilities have lower employment rates and lower levels of education, culminating in the likelihood of poverty, in both developed and developing countries. Employment encompasses not only earning an income, but increases a person's well-being, brings about a sense of dignity and social participation and inclusion (WHO, 2011).

The causes of the exclusion of persons with physical disabilities from employment was investigated, particularly as it manifests in the South African formal sector. Furthermore, the interventions that could serve to assuage or change this situation were explored. The researcher needed to establish whether the obstacles faced by persons with physical disabilities would be similar to or different from the challenges in developed countries, as reported in the literature, since South Africa is an emerging economy with a unique population composition and employment policy framework.

The problem statement of this research was formulated as follows: What are the causes of exclusion of persons with physical disabilities from the workplace and what are the interventions that could assuage this situation?

1.3 RESEARCH QUESTIONS

According to Mouton (2001), research problems often take the form of questions as a way of focusing the research problems and an initial distinction should be made between empirical and non-empirical questions. An empirical question addresses a real-life problem while non-empirical questions relate to the meaning of scientific concepts, trends in the literature or the plausibility of a new scientific theory.

This study undertook to uncover the causes of exclusion of persons with physical disabilities from employment in the South African open labour market. In this regard, the perceptions of employers and those of persons with disabilities were to be obtained for analysis, comparison and interpretation. Therefore, the researcher adopted a convergent mixed methods research design. According to Creswell and Creswell (2018), a convergent mixed methods research design enables the researcher to develop a comprehensive understanding of the research problem by comparing the quantitative results and qualitative findings obtained from the separate databases. Furthermore, the researcher endeavoured to identify interventions that could assuage their exclusion from the workplace.

The rationale for choosing physical disability as the focus of the study emanates from the researcher's familiarity with physical disability. There are many types of disabilities, broadly classified as mobility/physical, spinal cord (SCI), head injuries (TBI), vision, hearing, cognitive/learning, psychological and invisible (Disabled World, 2019). In the context of this research, physical disabilities include mobility and/or physical impairments of the upper or lower limbs and manual dexterity limitations. Orthopaedic injuries would resort under this category (Disabled World, 2019), while sensory impairments also count as physical disabilities (Ngwena, 2004). Every category of disability would likely warrant research in its own right.

1.3.1 Research questions in the context of the literature review

The research questions emanated from both the literature review pertaining to persons with disabilities and the researcher's own experience of assessing persons with disabilities. These research questions were formulated as follows:

Research question 1

How does the body of scholarship conceptualise the causes that culminate in barriers to employment experienced by persons with physical disabilities?

Research question 2

How does the literature conceptualise interventions to assuage the barriers to employment experienced by persons with physical disabilities?

1.3.2 Research questions in the context of the empirical study

The specific empirical research questions of the study entailed the following:

Research question 1

What are the causes of exclusion of persons with physical disabilities from employment in the South African formal sector?

Research question 2

What are the statistically significant differences that exist between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment in the South African formal sector?

Research question 3

What are the constructs which underlie the causes of exclusion of persons with physical disabilities from employment?

Research question 4

What are the interventions which could assuage the exclusion of persons with physical disabilities from employment?

1.3.3 Hypotheses

Emanating from the research problem and questions, the following hypotheses were formulated:

- Ha1: There are statistically significant differences between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment.
- Ho1: There are statistically non-significant differences between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment.
- Ha2: The constructs which underlie the causes of exclusion of persons with physical disabilities from employment can be identified.
- Ho2: The constructs which underlie the causes of exclusion of persons with physical disabilities from employment cannot be identified.

1.4 AIMS OF THE RESEARCH

Both the general and the specific aims of this study were derived from the research questions as presented.

1.4.1 General aim

The general aim of the research was twofold. Firstly, it set out to uncover the causes of exclusion of persons with physical disabilities from employment in the South African open labour market, and secondly, to identify interventions that could assuage this situation.

1.4.2 Specific aims

The specific aims, derived from the general aim, comprised the literature review aims and the empirical study aims.

1.4.2.1 Literature review aims

The primary aim of the literature review was to conceptualise the findings of international, African and South African research in the domain of employment of persons with physical disabilities.

The specific aims of the literature review were formulated as follows:

Research aim 1

To conceptualise the causes that culminate in barriers to employment experienced by persons with physical disabilities, as contained in the body of scholarship.

Research aim 2

To conceptualise interventions to assuage the barriers to employment experienced by persons with physical disabilities, as derived from the literature.

1.4.2.2 Empirical study aims

The specific aims of the empirical study entailed the following:

Research aim 1

To adopt a convergent mixed methods research approach in order to ascertain the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.

Research aim 2

To determine the statistically significant differences that exist between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.

Research aim 3

To uncover the constructs which underlie the causes of exclusion of persons with physical disabilities from employment.

Research aim 4

To identify interventions to assuage the exclusion of persons with physical disabilities from employment.

This study therefore adopted a convergent mixed methods research strategy, applied to the sample of employers and the sample of persons with physical disabilities. For the sake of comprehensiveness, advocacy organisations and associated groups (disability placement agencies and occupational therapists) were also approached for their input on selected matters. Mixed methods research and the associated designs, are expounded on in Chapter 5.

1.4.2.3 Anticipated contribution of the study

While there is a plethora of international research on disability, the researcher intended to discover the truth about the causes of exclusion of persons with disabilities specifically from the South African labour market. Furthermore, the aim was to identify corrective mechanisms or interventions, both in an organisational context and at the national level, which would apply to South Africa and take the country forward towards the equitable employment of persons with disabilities, physical disabilities in particular. Equal treatment incorporates inclusion in the workplace and underscores the principles of democracy and social reform strived towards in South Africa (South African Constitution, 1996a).

At a theoretical level, the results and findings of the convergent mixed methods research should contribute to the existing body of scholarship on disability employment, particularly the causes of exclusion of persons with physical disabilities from the workplace and interventions that could assuage this state of affairs. Latent constructs which appear to underlie the exclusion of persons with physical disabilities from employment were derived from exploratory factor analysis (EFA) and structural equation modelling (SEM). These were associated with particular variables which measure employers' receptivity to hiring persons with physical disabilities and could serve as a point of departure for the implementation of practical interventions and innovative policies to promote the employment of persons with disabilities. The researcher was unable to locate any South African studies on disability employment that incorporated SEM beyond CFA.

At a methodological level, the purposive samples consisted of four sets of role players, in one study, namely employers from different industrial sectors, persons with physical disabilities, advocacy organisations and associated groups (disability placement agencies and occupational therapists) which culminated in a wealth of South African perspectives on the topic. One accepts that employers would be receptive to suggestions emanating from their own ranks which are also suitable for South Africa, as an emerging economy. A convergent mixed methods research

strategy was adopted involving South African private sector employers (the quantitative strand) and persons with physical disabilities, both employed and unemployed (the qualitative strand). The sample of persons with physical disabilities was exceptionally large (312) for a qualitative approach (Creswell & Creswell, 2018), allowing their voice to be heard.

At a practical level, meta-inferences were derived from the quantitative results and the qualitative findings of the convergent mixed methods research to produce a holistic understanding of the research problem. As an extension of the mixed methods research into the causes of exclusion of persons with physical disabilities from employment, industrial sectors were compared and latent constructs sought in separate analyses. Employers from different industrial sectors were included to determine whether sector had an impact on their receptivity to employing persons with physical disabilities. Furthermore, the researcher covered a variety of types of disabilities rather than adopting a generic approach to disability. As expounded on in Chapter 2, there are many barriers to be addressed which result in the exclusion of persons with physical disabilities from the workplace. However, the latent constructs that were identified with EFA and SEM, condense the list of barriers and provide a starting point for action and interventions to bring about change to benefit persons with disabilities.

1.5 PARADIGM PERSPECTIVES

Mouton and Marais (1992) defined a paradigm as a collection of generally accepted achievements such as theories, models, predictions, laws, and so forth. According to Denzin and Lincoln (2000), a paradigm encompasses axiology (ethics), epistemology, ontology and methodology. Paradigms are collections of disciplinary assumptions and norms shared by scientists working in a field (Biddle & Schafft, 2015). Thus, a paradigm refers to the prevailing framework of theories, models and concepts of a specific science. There are a number of behavioural paradigms in the field of psychology, such as psychodynamics, behaviourism, humanism, positive psychology, systems theory, pragmatism and interpretivism.

1.5.1 Theoretical paradigms: Pragmatism and hermeneutics

The two theoretical paradigms that were applicable to this study, entailed pragmatism and hermeneutics, since a mixed methods research approach was adopted with a quantitative and a qualitative strand.

1.5.1.1 The pragmatic paradigm

Pragmatism emanates from actions, situations and consequences where research problems and questions are at the fore, not methods. Mixed methods research, where both quantitative and qualitative data are collected, can facilitate the best understanding of the issue being researched (Creswell & Creswell, 2018).

While a quantitative approach is primarily based on deduction and a qualitative one on induction, a pragmatic strategy relies on abductive reasoning that moves back and forth between induction and deduction. Some researchers view pragmatism as the most suitable paradigm for justifying the use of mixed methods research (Venkatesh, Brown, & Bala, 2013). Mixed methods research is described as the third research paradigm, following the quantitative and qualitative paradigms, which can bridge the divide between these worldviews, with pragmatism as the philosophical partner of mixed methods research which combines the insights of quantitative and qualitative research into a workable solution (Johnson & Onwuegbuzie, 2004). In this study a convergent mixed methods research strategy with a quantitative and a qualitative strand was adopted to find practical, innovative solutions to the exclusion of persons with disabilities from the workplace.

1.5.1.2 The hermeneutic paradigm

The researcher adopted a convergent mixed methods research approach, where the qualitative data included text for analysis and interpretation in accordance with the hermeneutic paradigm. Employers' responses to the open-ended questions in the customised survey questionnaire as well as the responses of persons with physical

disabilities to the structured telephonic questions, constituted text. Hermeneutics is an approach to the analysis of texts that emphasises how prior understandings and prejudices shape the interpretive process where interpretation involves making sense of the observed phenomenon in a manner that communicates understanding (Denzin & Lincoln, 2000).

As is pertinent to this study, Kafle (2011) described hermeneutics as a research methodology aimed at producing textual descriptions of how individuals subjectively experience certain phenomena in their life, and then seeking a deeper understanding of the meaning of that experience. Specifically, the hermeneutic circle refers to the dialectic between the understanding of the text as a whole and the interpretation of its parts, in which descriptions are guided by explanations anticipated by the researcher (Myers, 2008).

1.5.2 Methodological paradigm: Mixed methods research

The methodological paradigm that was applicable to this study entailed a convergent mixed methods research strategy that comprised a quantitative and a qualitative strand, specifically a convergent mixed methods design.

1.5.2.1 Mixed methods research strategy

The researcher implemented a convergent mixed methods research approach since both quantitative and qualitative data needed to be gathered, analysed and interpreted in order to answer the research questions.

As applicable to this study, mixed methods research entails an approach where quantitative and qualitative research techniques are combined or mixed in a single study (Creswell & Creswell, 2018). The fundamental principle is that multiple data should be collected with different methods so that the combination or mixture is likely to result in complementary strengths and non-overlapping weaknesses, producing a superior product (Johnson & Onwuegbuzie, 2004). In this study, the results and

findings obtained from the responses of employers and persons with physical disabilities respectively, were compared to determine whether convergence, complementarity and expansion could be achieved, while taking cognisance of contradictions.

1.5.3 The Afrocentric paradigm

Africanicity is a perspective that places the culture, values and human interest of African people at the fore. Afrocentricity embraces the epistemology of African shared values, namely the community as the centre, honouring of tradition, spirituality, ethical concern, harmony with nature and profound respect for ancestors (Mazama, 2001).

Afrocentric methods and generated knowledge must reflect the integration of spiritual and physical principles that may very well constitute a major challenge in an environment dominated by rationalism and positivism. Self-knowledge and rhythm play a special role in determining the proper methodology and methods. Indeed, starting with self-knowledge, all Afrocentric inquiry must be conducted through an interaction between the examiner and the subject. Cultural and social immersion are imperative (Mazama, 2001, p. 399).

In this study, the literature review incorporated research from abroad, Africa and South Africa pertaining to persons with disabilities and their challenges to secure employment. For the qualitative strand of the mixed methods research, the perspectives and narratives of the lived experiences of persons with physical disabilities were gleaned by means of structured telephonic interviews conducted in their home language by a qualified court interpreter.

1.5.4 Philosophical assumptions of research design

An assumption is an untested starting point or belief in a theory that is necessary in order to build a theoretical explanation (Neuman, 2011). Assumptions about the

nature of knowledge, research and science constitute a number of dimensions, as explained below.

1.5.4.1 Epistemological assumptions

Epistemology is an area of philosophy concerned with the creation of knowledge and focuses on how we know what we know or what are the most valid ways to reach truth (Neuman, 2011).

Babbie and Mouton (2014) referred to epistemic interest as follows:

That which ultimately makes science a rigorous and methodical undertaking and can be traced to the overriding interest of scientists – the search for truth or truthful knowledge. When an explanation of a phenomenon is accepted as accurate by a research community, the knowledge gained is considered to be valid and true (Babbie & Mouton, 2014, p. 7).

From the perspective of this research study, the epistemological assumption of truth or at least the most probable explanations were sought for the phenomenon of exclusion of persons with disabilities from employment. In order to gather evidence, relevant role players were involved to elicit their perspectives on and experiences of why persons with disabilities are excluded from employment. In the context of this research, it was accepted that, to generate knowledge, the role players (employers, persons with physical disabilities, advocacy organisations and associated groups) would possess the knowledge to demonstrate truth about the nature of the research problem and possible solutions, being closely associated with the phenomenon. The research methodology adopted in this study is discussed in sections 1.7.4 and 1.7.5.

1.5.4.2 Ontological assumptions

Ontology falls within the domain of philosophy that deals with the nature of being or what exists and asks what the fundamental categories of reality entail (Neuman, 2011). Mouton and Marais (1992) proposed that the ontological dimension is

directed at aspects of reality with explicit and implicit assumptions about what can be studied. The ontological assumption addresses the unit of analysis. According to Biesta (2010), ontology refers to the assumptions held about reality, particularly the reality of the researched phenomenon. Apart from knowing the cause of a phenomenon, intentions and reasons for its occurrence are sought to gain knowledge of its meaning.

In this study, the ontological assumption of the researcher entailed that reality is constructed by the participants and determined by their own circumstances, perceptions, value systems and expectations. Therefore, there can be no single, clear-cut, objective reality and probably as many realities as there are participants.

1.5.4.3 Methodological assumptions

According to Mouton and Marais (1992), research methods could include quantitative, qualitative and action research, or a combination thereof. The methodological dimension pertains to decisions about data collection, data analysis and inference. Greene and Hall (2010) posited that methodological assumptions guide how knowledge is generated and warranted. As described by the research aims of this study, a mixed methods research strategy was adopted to obtain data from employers, persons with physical disabilities, advocacy organisations and associated groups pertaining to their perspectives on several dimensions related to the research questions.

1.5.4.4 Axiological assumptions

Axiological assumptions encompass beliefs about ethics in executing research (Teddlie & Tashakkori, 2010). Mertens, Bledsoe, Sullivan and Wilson (2010) alluded to the principles or ethics of conducting research as encompassing respect, courtesy, informed consent, maximising favourable results, minimising harm and ensuring justice, where participants reap the benefits of the research. In this study,

the research was approved by the CEMS/IOP Research Ethics Review Committee and the researcher abided by the standards set.

1.5.5 Disciplinary context

The study was conducted in the context of industrial and organisational psychology, specifically the exclusion of persons with physical disabilities from employment. Heathfield (2019, p. 1) defined employment as follows:

Employment is a paid work agreement between an employer and an employee. The term applies to a person who is hired for a salary or fee to perform work for an employer. Although employees can negotiate certain items in an employment agreement, the terms and conditions are largely determined by the employer. This agreement may also be terminated by the employer or the employee.

1.5.5.1 Industrial and organisational psychology

This study was undertaken within the discipline of industrial and organisational psychology (I-O psychology), which comprises the branch of psychology that studies human behaviour in the workplace and organisational behaviour. In South Africa, the Health Professions Council of South Africa (HPCSA) is the coordinating body for all registered health professions. As published in the Government Gazette (2018b, p. 6), the Health Professions Act (1974) defines the Scope of Practice of Industrial Psychologists as encompassing the following acts:

- (i) enhancing the behaviour and functioning of people, groups, and organisations to assist people pursuing meaningful and enriching work, by applying psychological principles in the assessment, diagnosis and intervention of human behaviour and to facilitate organisational flourishing; and
- (ii) intervening in issues of critical relevance to organisations, including career development, talent management, coaching, recruitment and selection, training, organisational development, organisational ergonomics and design,

change management, organisational ethics, performance, potential, behavioural economics, wellness, occupational stress management and work-life balance.

I-O psychology encompasses a number of subdisciplines or fields. Schreuder and Coetzee (2010) referred to personnel psychology, organisational psychology, career psychology, psychological assessment, ergonomics, consumer psychology, employee and organisational well-being and labour relations. In an overview of the status of research in I-O, Schreuder and Coetzee (2010) identified changes in the world of work and concomitant global implications for the discipline. In relation to this study, they referred to increasing labour market participation and equality for historically disadvantaged groups, including ethnic minorities, women and persons with disabilities, with implications for, inter alia, fair selection procedures and diversity in workplaces, policies and organisational performance.

1.6 META-THEORETICAL CONCEPTS

Babbie and Mouton (2014) defined concepts as theoretical creations based on observations which cannot be observed directly or indirectly. Disability denotes the main construct applicable to this study and deserves comprehensive description.

1.6.1 Disability as a construct

There are numerous definitions of disability in the literature, be it of a physical, neurological, sensory, intellectual, psychosocial or psychiatric nature, that have been formulated by institutions involved in disability, laws of countries, and so forth. In this study, physical disability in the context of employment was researched.

1.6.1.1 World Health Organization (WHO)

The WHO's Policy on the Employment of Persons with Disabilities (2010) offers the following definitions which align disability-related terminology with the WHO

definition and model of disability as contained in the International Classification of Functioning, Disability and Health (ICF) (WHO, 2001):

Disability is an umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors). Disability is an alteration of an individual's capacity to meet personal, social or occupational demands because of an impairment (WHO, 2010, p. 9).

Functioning is an umbrella term for body functions, body structures, activities and participation. It denotes the positive aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors). Body functions are the physiological functions of body systems (including psychological functions). Body structures are anatomical parts of the body such as organs, limbs and their components. Activity limitations are difficulties an individual may have in executing activities. Environmental factors make up the physical, social and attitudinal environment in which people live (WHO, 2010, p. 9).

Impairment is a loss, loss of use or derangement of any body part, organ system, or organ function. It is a situation where anatomical or functional loss has occurred, and normal functioning is impaired. Impairment may be temporary or permanent, fluctuating or episodic (WHO, 2010, p. 9).

McDougall, Wright and Rosenbaum (2010) suggested that the ICF should be expanded to include quality of life and human potential for development as influenced by health, functioning and contextual factors.

The Convention on the Rights of Persons with Disabilities and its Optional Protocol, define disability as follows:

Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which, in interaction with various barriers,

may hinder their full and effective participation in society on an equal basis with others (CRPD, 2006, p. 4).

From a global perspective, it seemed prudent to include the different definitions of disability as currently accepted by a number of CRPD signatories. Member states of the United Nations, including South Africa, who signed the CRPD and its Optional Protocol, are obliged to adopt the Convention's policies and practices (UN Enable, 2007).

1.6.1.2 The United States of America (USA)

In the case of the USA, the Americans with Disabilities Act of 1990 defines disability as follows:

The term disability means, with respect to an individual:

- (a) a physical or mental impairment that substantially limits one or more major life activities of such individual;
- (b) a record of such an impairment; or
- (c) being regarded as having such an impairment.
- (d) an individual meets the requirement of being regarded as having such an impairment if the individual establishes that he or she has been subjected to an action prohibited under this chapter because of an actual or perceived physical or mental impairment whether or not the impairment limits or is perceived to limit a major life activity.
- (e) Paragraph (1) (C) shall not apply to impairments that are transitory and minor. A transitory impairment is an impairment with an actual or expected duration of 6 months or less (USA, 1990, Sec. 12102).

1.6.1.3 The United Kingdom (UK)

In the case of the UK, the Disability Discrimination Act of 1995 was replaced by the Equality Act of 2010, which defines disability as follows:

1. A person (P) has a disability if:
 - (a) P has a physical or mental impairment, and
 - (b) the impairment has a substantial and long-term adverse effect on P's ability to carry out normal day-to-day activities.

You are disabled under the Equality Act 2010 if you have a physical or mental impairment that has a substantial and long-term negative effect on your ability to do normal daily activities.

- (1) substantial is more than minor or trivial, e.g., it takes much longer than it usually would to complete a daily task like getting dressed.
- (2) long-term means 12 months or more, e.g., a breathing condition that develops as a result of a lung infection (UK, 2010, Ch. 1, sec. 6).

1.6.1.4 Australia

As published by the Australian Network on Disability, the Disability Discrimination Act of 1992 of Australia, defines disability as follows:

- (a) Total or partial loss of the person's bodily or mental functions;
- (b) or total or partial loss of a part of the body;
- (c) the presence in the body of organisms causing disease or illness;
- (d) the malfunction, malformation or disfigurement of a part of the person's body;
- (e) a disorder or malfunction that results in the person learning differently from a person without the disorder or malfunction;
- (f) and a disorder, illness or disease that affects a person's thought processes, perception of reality, emotions or judgment, or that results in disturbed behaviour; and includes a disability that
- (g) presently exists,
- (h) previously existed but no longer exists;
- (i) may exist in the future, or is imputed to a person (meaning it is thought or implied that the person has disability but does not) (Australia, 1992, Part 1, sec. 4).

1.6.1.5 South Africa

At present, South African labour legislation is being reviewed in order to be aligned with the CRPD, including revision of terminology, such as “people” versus “persons” with disability (L. Pretorius, former Chief Director: Advocacy and Mainstreaming Rights of Persons with Disabilities at the Department of Social Development, email communication, March 22, 2017).

In South Africa, the Employment Equity Act 55 of 1998, refers to disability as follows:

Persons are considered as persons with disabilities if they:

- (a) have a physical or mental impairment;
- (b) which is long term or recurring; and
- (c) which substantially limits their prospects of entry into, or advancement in employment (RSA, 1998, p. 5).

The South African Human Rights Commission developed a Disability Toolkit, to assist employers, which contains the following definition of disability:

Disability is the consequence of an impairment that may be physical, cognitive, mental, sensory, emotional, developmental, or some combination of these. A disability may be present from birth, or occur during a person’s lifetime. This definition is referred to as the “social model” (SAHRC, 2017, p. 13).

1.6.2 Models of disability

Different models of disability have been developed over time such as the following: Medical model of disability; social model of disability; biomedical model of health; identity model of disability; minority model of disability; expert or professional model of disability; tragedy and/or charity model of disability; moral model of disability; legitimacy model of disability; empowering model of disability; social adapted model of disability; economic model of disability; diversity model of disability; religious

model of disability; market model of disability; human rights based model of disability; relational model of disability; affirmation model of disability; and spectrum model of disability (Disabled World, 2019). One can add the cultural model of disability (Retief & Letsosa, 2018) and the capability approach which entails an economic dimension of disability, since impairment limits earning capacity and culminates in disability at the individual's level of functioning (Mitra, 2006).

1.6.2.1 The biopsychosocial model

In the International Classification of Functioning, Disability and Health (ICF) the World Health Organization (WHO) adopted the biopsychosocial model, which is explained as follows:

A model of disability that synthesizes what is true in the medical and social models, without making the mistake each makes in reducing the whole, complex notion of disability to one of its aspects. This more useful model of disability might be called the *biopsychosocial model*. ICF is based on this model, an integration of medical and social. ICF provides, by this synthesis, a coherent view of different perspectives of health: biological, individual and social (WHO, 2002, p. 9).

1.6.2.2 The medical model

According to Disabled World (2010), the medical model is defined as follows:

The medical model views disability as a problem of the person, directly caused by disease, trauma, or other health condition which therefore requires sustained medical care. In the medical model, management of the disability is aimed at a cure, or the individual's adjustment and behavioural change that would lead to a cure (Disabled World, 2010, par. 3).

1.6.2.3 *The social model*

As contained in *Disabled World* (2010), the social model of disability is defined as follows:

The social model of disability views the issue of disability as a socially created problem in terms of the full integration of individuals into society. In this model, disability is not an attribute of an individual, but rather a complex collection of conditions, many of which are created by the social environment (*Disabled World*, 2010, par. 4).

The social model profoundly impacts on social policy world-wide. In South Africa, the social model forms the foundation of the *Integrated National Disability Strategy* (1997), and the *Code of Good Practice: Key Aspects on the Employment of People [Persons] with Disabilities* (RSA, 2015a) (Retief & Letsosa, 2018).

This study investigated the causes of exclusion of persons with physical disabilities from employment and therefore the social model of disability applied to the orientation of the research. The social model is described in more detail in Chapter 2.

1.6.3 Type of disability

1.6.3.1 International Classification of Functioning, Disability and Health (ICF)

The description of the exhaustive list of diseases and disabilities, as classified by the WHO in the ICF (2001), falls beyond the scope of this research. The ICF adopts a multidimensional interactive approach where links between dimensions of disability are based on evidence (WHO, 2008). Different aspects of the ICF are updated on a regular basis (A Cieza, email communication on 6 March, 2020).

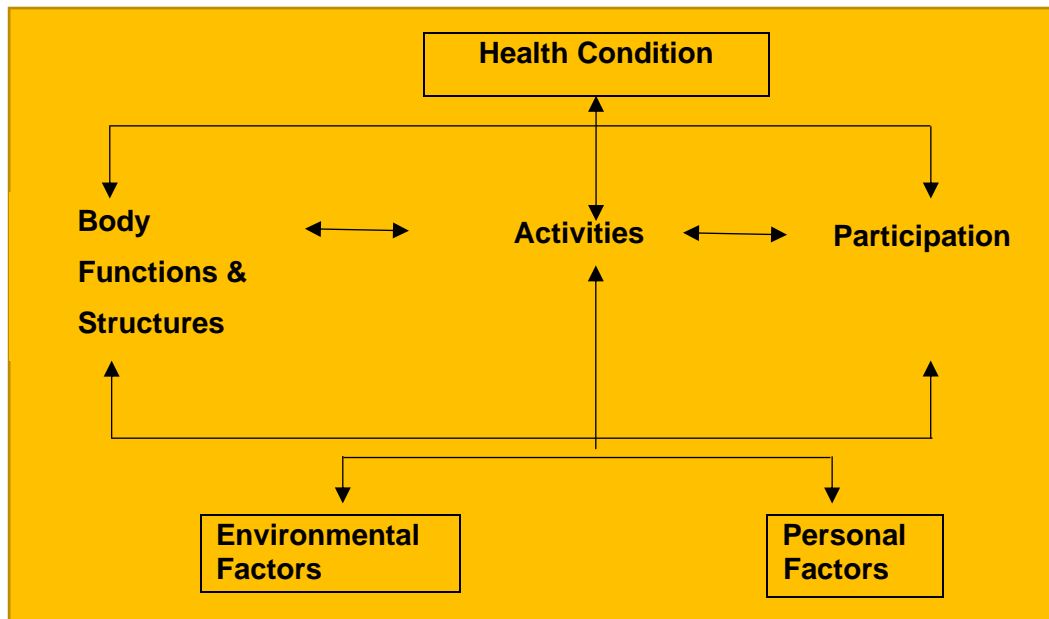


Figure 1.1 Interactions between the components of ICF (Source: WHO, 2008, p. 23)

As indicated in Figure 1.2, in the ICF, disability and functioning are the result of interactions between health conditions (diseases, disorders and injuries), environmental factors (e.g. attitudes, architectural characteristics, legal structures, social structures, climate, terrain, etc.) and personal factors (e.g. gender, age, education, occupation, experience, behavioural patterns and other factors that impact on the disability experience of the individual) (WHO, 2001; WHO, 2008). The ICF records a disability irrespective of the cause (e.g. illness, act of war or vehicle accident) since the impairment remains unchanged (WHO, 2008).

1.6.3.2 *Appropriate terminology*

At this juncture, it was considered prudent to clarify terminology used in this study that might be unfamiliar to individuals not involved in disability. These entail the following:

- (1) Designated employers entail employers who employ 50 or more employees or who hire less, but meet turnover thresholds as stipulated (SAHRC, 2017, p. 6).

- (2) Designated groups refers to previously disadvantaged people of South African origin who are African, Indian, Coloured, female or a person with a disability (SAHRC, 2017, p. 6).
- (3) Disability discrimination denotes discrimination on the basis of disability and means any distinction, exclusion or restriction of persons on the basis of disability, which has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field. It encompasses all forms of unfair discrimination, whether direct or indirect, including denial of reasonable accommodation (SAHRC, 2017, p. 7).
- (4) Disability mainstreaming requires a systematic integration of the priorities and requirements of persons with disabilities across all sectors and built into new and existing legislation, standards, policies, strategies, their implementation, monitoring and evaluation. Barriers to participation must be identified and removed (SAHRC, 2017, p. 7).
- (5) Inclusive workplaces make sure that people with disabilities are included in decisions about them, they are included in policy decisions, have seats on the organisation's employment equity committees and they are consulted when decisions affecting them are being made (SAHRC, 2017, p. 42).
- (6) Exclusion refers to the act of socially isolating or marginalising an individual or groups on the basis of discrimination by not allowing or enabling them to fully participate and be included in society and enjoy the same rights and privileges (SAHRC, 2017, p. 7).
- (7) Inherent requirements of the job as a concept involves a job requirement or qualification that is essential to completing the job safely and efficiently. An employer would not be required to accommodate a disability if it can show that the specific job duty or requirement is an inherent requirement and the person did not disclose a disability that could limit the person's ability to perform a task (SAHRC, 2017, p. 8).

- (8) Suitably qualified individual with a disability is an individual with a disability who, with or without reasonable modification to rules, policies or practices, the removal of architectural, communication or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or activities provided by a public entity (SAHRC, 2017, p. 9).
- (9) Adaptive technology entails hardware or software products that provide access to a computer that is otherwise inaccessible to an individual with a disability (SAHRC, 2017, p. 6).
- (10) Enabling environments comprise interrelated physical and other infrastructure, built environments, culture, laws, policies, information and communication technologies, and organisations that must be in place to facilitate the socio-economic development of persons with disabilities (SAHRC, 2017, p. 7).
- (11) Reasonable accommodation refers to the necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms (CRPD, 2006, p. 4).
- (12) Undue or unjustifiable hardship in relation to the provision of accommodation, is defined by the Code of Good Practice as action that requires significant or considerable difficulty or expense. This involves considering, amongst other things, the effectiveness of the accommodation and the extent to which it would seriously disrupt the operation of the business (RSA, 2015a, p. 8).
- (13) Universal design encompasses the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialised design. Universal design shall not exclude assistive devices for particular groups of persons with disabilities where this is needed (CRPD, 2006, p. 4).

- (14) Barriers are factors in a person's environment that, through their absence or presence, limit functioning and create disability. These include aspects such as a physical environment that is inaccessible, lack of relevant assistive technology, and negative attitudes of people towards disability, as well as services, systems and policies that are either non-existent or that hinder the involvement of all people with a health condition in any area of life (WHO, 2008, p. 28).

1.6.3.3 Disabilities applicable to this study

In the context of this research, the types of physical disabilities that were reported by the sample of persons with physical disabilities encompassed orthopaedic injuries (musculo-skeletal fractures, amputations or soft tissue injuries); neurological injuries (nerve damage, brachial plexus lesions, hemiplegia, hemiparesis or paraplegia); sensory injuries (partial or total loss of senses, particularly vision and hearing); and myological injuries (muscle damage).

Medical professionals, including those in South Africa, classify the severity of impairment in terms of the AMA (American Medical Association) Guides, and award an impairment rating in respect of the body part affected as well as a whole person impairment (WPI) rating. The AMA Guides to the Evaluation of Permanent Impairment ® published by the American Medical Association, are used in workers' compensation systems, federal systems and automobile personal injury cases to rate impairment, not disability (American Medical Association, 2007).

These impairment ratings serve as a guide in terms of severity (trivial, mild, moderate or severe). In the medico-legal domain, inclusive of the psycho-legal field, in which the researcher works, occupational therapists relate the whole person impairment (WPI) rating to the individual's residual physical work capacity to execute his or her particular job tasks and, by implication, his or her employability in the open labour market.

1.6.4 Prevalence of disability and employment rates

1.6.4.1 The global perspective

Since this study addressed an aspect of disability, namely employment, it seemed appropriate to present available data on the prevalence of disability as well as the labour force participation of persons with disabilities in certain countries. Prevalence of disability in the case of the USA, UK and Australia were included since they are member states of the UN and offer comprehensive, abundant, accessible research on disability management, which provided a sound frame of reference for this study. According to the World Report on Disability (WHO, 2011), based on 2010 global population estimates, more than a billion people or about 15% of the world's population are estimated to be living with some form of disability.

The number of persons with disabilities is increasing, since populations are ageing and owing to a global increase in chronic health conditions associated with disability, such as diabetes, cardiovascular diseases and mental illness. The prevalence of disability in a specific country is influenced by trends in health conditions, the environment and other factors, such as traffic collisions, natural disasters, conflict, lifestyle and substance abuse (WHO, 2011). In an analysis of the World Health Survey (2002-2004), Mitra and Sambamoorthi (2014), estimated the prevalence of disability among adults in 54 developing countries. Severe or extreme functional or activity difficulties were found to be highly prevalent, estimated at 14% for adults in all the countries studied. Low and middle income countries reflected higher disability prevalence than high income ones. Furthermore, disability prevalence amounted to 12% among working age adults while women had higher prevalence than men. These findings hold implications for policy, resources and public health. According to Ryder (2020), existing inequalities experienced by persons with disabilities are expected to increase owing to transformation in the workplace such as technological advancements, demographic shifts and climate change. However, their marginalisation can be countered by employers' policies that cater for diversity, inclusion and accessibility.

1.6.4.2 The USA

According to the US Bureau of Labor Statistics, the disability employment statistics for December 2019, comprised the following:

The labour force participation rate for persons with disabilities was 20.5%, while that for persons without disabilities was 68.7%. The unemployment rate for persons with disabilities was 7.0%, while that for persons without disabilities was 3.2% (US Bureau of Labor Statistics, 2019).

1.6.4.3 The UK

There were 7.7 million persons of working age with disabilities in the UK in 2019, of whom 4.1 million (52.6%) were employed as opposed to 81.5% of persons without disabilities. The unemployment rate for persons with disabilities was 7.3% in 2019 as opposed to 3.4% for persons without disabilities. Furthermore, 43.3% of persons with disabilities were economically inactive, either being unemployed or not seeking work, as opposed to 15.6% of persons without disabilities (UK, 2019).

1.6.4.4 Australia

In 2015, there were 2.1 million (13.9%) Australians aged 15 to 64 years with disability. Successive Australian Bureau of Statistics data indicates that these statistics do not change significantly (Australian Human Rights Commission, 2016). In 2019, it was reported that 48% of working-age (15-64) persons with disabilities were employed as opposed to 79% of persons without disability (Australian Institute of Health and Welfare, 2019).

1.6.4.5 South Africa

Based on the Census 2011 data, Statistics South Africa released a report in 2014 in which persons with disabilities in South Africa were profiled. The disability

prevalence rate was found to be 7.5% in South Africa. In the executive summary, it was conveyed that the report excluded statistics on children under the age of five and persons with psychosocial and/or certain neurological disabilities owing to data limitations (Statistics South Africa, 2014). Various models of deriving statistics pertaining to disability, including prevalence, will produce different outcomes in a given society. When mild difficulties are included, the prevalence of disability could be 16 per cent of the South African population, while those with severe disabilities could amount to four per cent (Statistics South Africa, 2016)

Maja, Mann, Sing, Steyn and Naidoo (2011) found that there were no comprehensive statistics available on the number of persons with disabilities in South Africa. However, according to the 2001 census, approximately 5% of the population had disabilities at the time.

In the 19th Annual Report of the Commission for Employment Equity (CEE) (RSA, 2019), it transpired that in 2018, 27 485 employment equity reports were submitted by designated employers to the CEE. The report also contained the percentages of employed persons with disabilities by occupational level as illustrated in Table 1.1.

Table 1.1

Percentages of employed persons with disabilities by occupational level

Occupational Level	Percentage
Top management level	1.3
Senior management level	1.2
Professionally qualified level	1.1
Skilled level	1.1
Semi-skilled level	0.9
Unskilled level	1.1

The conclusion was drawn that persons with disabilities remain grossly under-represented at all job levels (RSA, 2019).

1.6.5 Policy frameworks

The South African Baseline Country Report (2013) on the implementation of the CRPD was submitted to the United Nations (UN) in 2014. South Africa appeared before the UN Committee on the Rights of Persons with Disabilities in August 2018 to address a comprehensive list of issues relating to the domestication of the CRPD, including, inter alia, employment equity, the built environment, reasonable accommodation, etc. The domestication process has commenced, including the development of national disability law, under the leadership of the South African Law Reform Commission. Also, in May 2019, the Ministry in the Presidency: Women, Youth and Persons with Disabilities was reconfigured to co-ordinate disability matters while service related issues remain within relevant departments (L. Pretorius, email communication, November 8, 2019).

The current policy framework applicable to persons with disabilities in particular, is described in Chapter 4, including the White Paper on the Rights of Persons with Disabilities (WPRPD) (2015), the South African Constitution (1996a), the Employment Equity Act (1998), the Integrated National Disability Strategy White Paper (1997), etc.

1.7 RESEARCH DESIGN

Mouton (2001) defined a research design as a plan or outline of how the research will be conducted. According to Kerlinger and Lee (2000), this plan is structured in such a way as to obtain answers to research questions.

1.7.1 Conceptual framework

Trafford and Leshem (2008) explained the origins of conceptual frameworks, in essence as, firstly, reading the literature on the topic to gain theoretical perspectives, as well as a deeper understanding of related issues and to clarify relationships between ideas. Secondly, the personal experiences and assumptions which

researchers have on their topic form perspectives that can modify interpretations of what the literature contains. Thirdly, reflecting on the topic and how to conceptualise it, provide potentially deeper understanding of that topic and the manner in which it might be investigated. A conceptual framework represents the researcher's "map of the territory being investigated".

One accepts that researchers' points of departure might differ. The researcher became aware of the need to address the topic of this study through many years of work experience with and exposure to persons with disabilities and their struggle to secure gainful employment. The researcher set out to determine the causes of exclusion of persons with physical disabilities from the workplace and likely interventions which could be devised to assuage this situation. It emerged from the literature that this scenario is a global phenomenon, necessitating numerous policy frameworks such as the CRPD (2006). The researcher intended to establish the concomitant circumstances related to the topic which are unique to South Africa as a developing nation and a young democracy with limited resources (South African Baseline Country Report, 2013.) The theory related to the barriers to employment faced by persons with disabilities is expounded on in Chapters 2 and 3. The paradigms and methodologies for investigating the topic were then conceptualised, based on the research aims and hypotheses, as described earlier in this chapter.

The conceptual framework of the study culminated in a research process. Babbie and Mouton (2014) illustrated the logical flow of steps and procedures to facilitate a systematic approach from initiation to completion of research. Figure 1.2, adapted from Babbie and Mouton (2014), depicts the research process applicable to this study. The abbreviations used comprise employers (E), persons with physical disabilities (PWPD) and advocacy organisations and associated groups (AG).

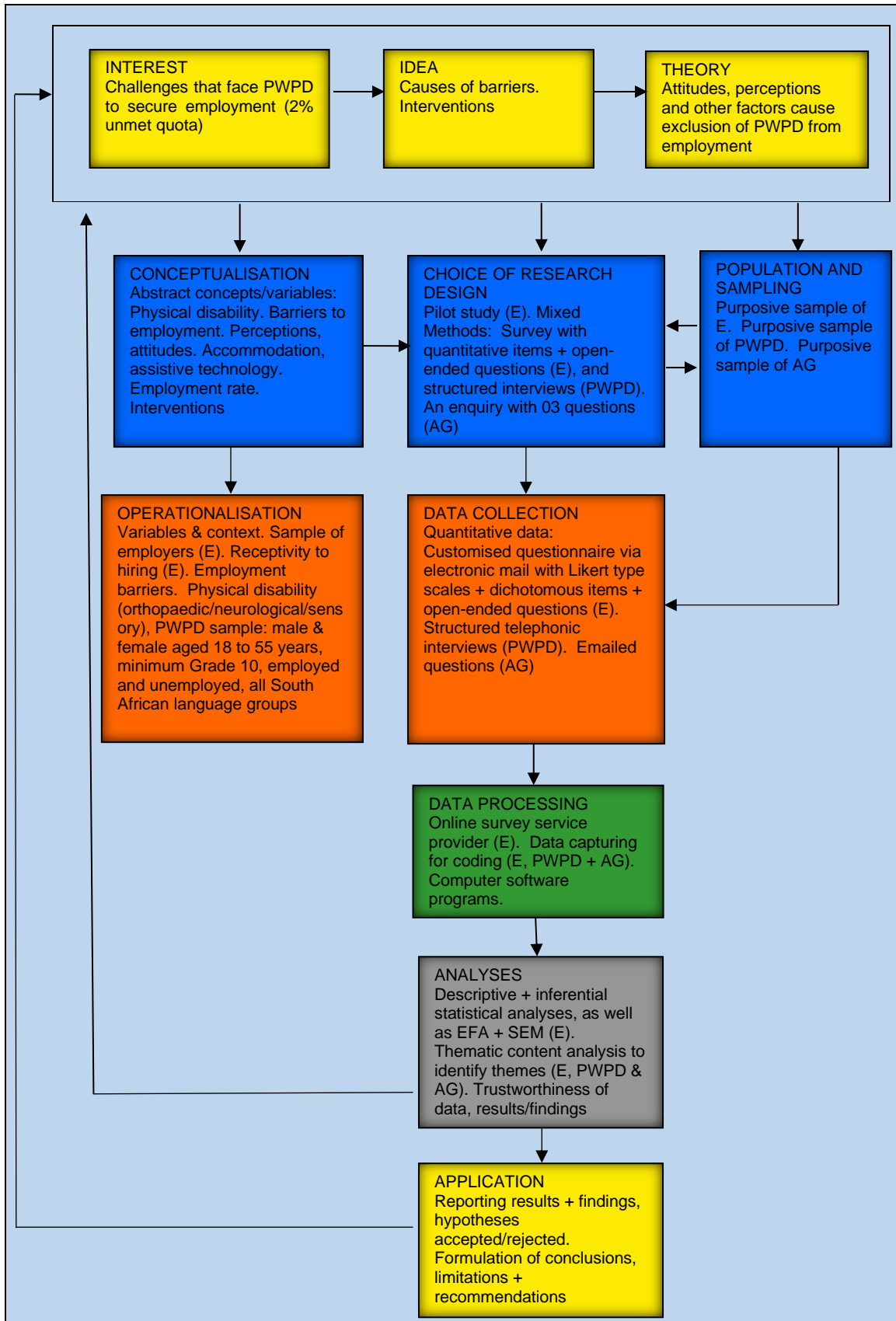


Figure 1.2 The research process followed in this study (Adapted from Babbie & Mouton, 2014, p. 98).

As illustrated in Figure 1.2, the research process commenced with the researcher's interest in the reasons why willing and able persons with disabilities faced challenges to secure employment in the South African open labour market. Questions arose about the nature and causes of barriers that culminate in this exclusion and whether interventions could be conceptualised to counter these obstacles. It emerged from the theory that able-bodied persons' attitudes towards and perceptions of persons with disabilities, as well as other factors, caused this exclusion from the workplace. Concepts that appeared to require description and investigation entailed certain variables, types of disability, barriers to employment, perceptions, attitudes and accommodation and assistive technology needed to enable a person with a disability to execute the essential tasks of a job. In order to uncover the causes referred to, the researcher chose a mixed methods research design which comprised a customised survey questionnaire, distributed to a sample of South African private sector employers, and structured telephonic interviews conducted with a sample of persons with physical disabilities. The researcher specifically chose physical disability as the focus of the study. Certain advocacy organisations and associated groups (disability placement agencies and occupational therapists) were also approached to obtain their suggestions, especially pertaining to possible interventions. The potential respondents therefore consisted of private sector employers, persons with physical disabilities and representatives from advocacy organisations and associated groups.

The collection of data for the mixed methods research study focused on employers and persons with physical disabilities, respectively. A customised survey questionnaire, which contained closed questions (Likert-type scale and dichotomous items) and open-ended questions, was distributed to the sample of employers by electronic mail. Researchers such as McKinney (2013) and Snyman (2009) reported difficulty locating persons with disabilities as potential respondents. This researcher was fortunate to have access to a large database of individuals with disabilities acquired as a result of injuries sustained in vehicle collisions. These included physical injuries, mainly of an orthopaedic nature, but in some cases, also neurological and/or sensory impairments. Structured telephonic interviews, based

on interview schedules, were conducted with the sample of persons with physical disabilities. Furthermore, an electronic enquiry, composed of three questions, was sent to certain advocacy organisations and associated groups. In respect of data processing, responses from the employers were processed by an online survey service provider and presented to the researcher in a Microsoft Excel format. Responses from persons with physical disabilities were recorded verbatim, transcribed and captured in a Microsoft Excel format.

The quantitative data that emanated from the survey questionnaire were analysed by means of descriptive and inferential statistical methods, as well as exploratory factor analysis (EFA) and structural equation modelling (SEM). The qualitative data that were forthcoming from the open-ended questions, contained in the customised survey questionnaire, and the structured telephonic interviews, respectively, were subjected to thematic content analysis to derive themes. The results obtained from the quantitative data and the findings based on the qualitative data were judged in terms of their trustworthiness, reported and discussed. The hypotheses of the study were accepted or rejected. Conclusions, limitations of the study and recommendations were formulated.

1.7.2 Literature review

The first phase of the research design encompassed the literature review in order to investigate prior research relating to the challenges faced by persons with disabilities, physical disabilities in particular, to secure employment. The aims of the literature review were presented earlier in this chapter. The theoretical constructs to be described entailed disability; causes of exclusion of persons with physical disabilities from employment; barriers that exacerbated or resulted in exclusion; negative attitudes; organisational and other factors that contributed to such exclusion; and corrective mechanisms or interventions that could promote inclusion of persons with physical disabilities in the workplace, in line with international conventions and domestic policy.

1.7.3 Research approach

1.7.3.1 Quantitative research approach

Creswell and Creswell (2018, p. 4) defined quantitative research as follows:

An approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analysed using statistical procedures.

To determine the causes of exclusion of persons with physical disabilities from the workplace, as perceived by employers and persons with physical disabilities respectively, the researcher adopted a convergent mixed methods research strategy. The study therefore consisted of a quantitative strand (employers' responses to the customised survey questionnaire that contained Likert-type scaled items, dichotomous and open-ended items) and a qualitative strand (responses of persons with physical disabilities elicited during structured telephonic interviews). In the case of both strands, primary data were obtained. The customised survey questionnaire comprised a cross-sectional field survey of employers.

A correlational research approach to the quantitative strand was followed since relationships between latent factors (components), that emanated from exploratory factor analysis, were sought in order to uncover the underlying causes of exclusion of persons with physical disabilities from employment. Responses to the open-ended questions took the form of text which was analysed by means of thematic content analysis.

1.7.3.2 Qualitative research approach

Creswell and Creswell (2018, p. 4) defined qualitative research as follows:

An approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. The process of research involves emerging questions and procedures, data typically collected in the participant's setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data.

As indicated earlier in this chapter, a convergent mixed methods research strategy was adopted to determine the causes of exclusion of persons with physical disabilities from employment, as perceived by employers and persons with physical disabilities, respectively.

In the case of the qualitative strand, thematic content analysis was performed in respect of the transcribed text responses, obtained during the structured telephonic interviews conducted.

1.7.3.3 Research strategy

A convergent mixed methods research strategy was adopted, associated with the theoretical paradigms of pragmatism and hermeneutics, as described earlier in this chapter.

Hanson, Creswell, Plano Clark, Petska and Creswell (2005, p. 224) defined mixed methods strategies as follows:

The collection and analysis of both quantitative and qualitative data in a single study in which the data are collected concurrently or sequentially, are given a priority, and involve the integration of the data at one or more stages in the process of research.

In this study, the quantitative and qualitative strands were combined in the mixed methods research undertaken. According to Babbie and Mouton (2014), by

combining methods in the same study, the shortcomings of each method can be overcome to an extent.

As expounded on in Chapter 5, the researcher applied a convergent mixed methods research strategy to explore the causes of exclusion of persons with physical disabilities from employment as well as possible interventions to promote inclusiveness. On the one hand, a customised survey questionnaire was distributed to South African formal private sector employers, via electronic mail, which contained quantitative and a few qualitative items, derived from the literature review. On the other hand, structured telephonic interviews were conducted with persons with physical disabilities, to gain insight into their perspectives and experiences in their quest for employment. The contents of the interview schedules were derived from the body of scholarship. The views of certain advocacy organisations and associated groups were also canvassed via an electronic inquiry composed of three open-ended questions.

The methodological convictions of the research were based on the premise that a mixed methods research strategy would produce quantitative and qualitative data, the analyses and interpretation of which would answer the research question.

1.7.4 Research method: Quantitative strand of the mixed methods research strategy

In this study, the quantitative strand of the mixed methods research consisted of data collected from employers, by means of a customised survey questionnaire.

1.7.4.1 Sampling of research participants

The type and size of the sample should be adequate for the chosen research design (O’Cathain, 2010). In her thesis on disability employment attitudes and practices in South African companies, Wigget-Barnard (2013) obtained a sample of 86 organisations who reported 14 different job titles which included human resources

directors/executives/managers and officers, employment equity managers, financial managers, project managers, medical officers, corporate affairs managers and wellness specialists.

A purposive sample of employers in the South African formal sector was obtained for the quantitative strand of the mixed methods research. The goal was to target individuals who held human resources (HR) positions in private sector organisations and who were involved in the recruitment and selection of staff. The online survey service provider acquired a database of 20 000 incumbents, who reportedly held HR roles in private sector organisations, from a database supplier. However, upon closer inspection, it became evident that a large portion of these incumbents did not hold HR positions and were removed from the database, leaving 8 597 potential respondents. At this juncture, it needs to be clarified that, throughout the thesis, the “employer” or “employers” were represented by the respondents who completed the online customised survey questionnaire. They comprised HR directors, HR managers and HR officers, while a few senior managers participated. These job titles were provided by the respondents and are entrenched in the private sector, as also contained in the PE Corporate Services SA Remuneration and Benefit Survey (2019). This survey is widely used by South African organisations for data on, inter alia, job grading, remuneration and fringe benefits associated with corporate jobs, statistics and market trends in the South African labour market. The survey is published twice a year. It was hoped that a large database would yield a satisfactory response rate.

1.7.4.2 Data collection measuring instrument

The first empirical research aim of the study was to adopt a mixed methods research approach in order to uncover the causes of exclusion of persons with physical disabilities from employment in the South African formal sector, while the first literature research aim was to conceptualise the causes that culminate in barriers to employment experienced by persons with physical disabilities, as contained in the body of scholarship. The issues surrounding the exclusion of persons with physical

disabilities from the workplace emerged from the literature review and served as the frame of reference based on which the questions contained in the customised survey questionnaire were formulated and presented as items.

As indicated by Uebersax (2006), Likert scales were developed by Rensis Likert, a sociologist at the University of Michigan, in 1932. Likert was concerned with measuring psychological attitudes and sought a method that would produce attitude measures that could be interpreted as measurements on a metric scale.

The researcher developed a customised survey questionnaire that was distributed and collected via electronic mail by an online survey service provider. The questionnaire was developed using six-point Likert-type scale items, without a neutral point, dichotomous items and open-ended questions. The rationale for this choice of measuring instrument was the wide use of the Likert scale when measuring attitudes in survey research. Furthermore, it consists of multiple items, the average score of which results in a more reliable measure than is possible with a single item (Lavrakas, 2008).

Handwerker (1996) stated that Likert scales test whether a number of questions measures a single, underlying concept. Long lists of possible items are subjected to factor analysis in order to identify those items that measure the variable being studied the most effectively, a technique also applied in this study.

An example of such an item entails the following:

Persons with disabilities should be subjected to the same performance standards as able-bodied employees.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
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If you disagree, please state reasons.

According to Joshi, Kale, Chandel and Pal (2015), the validity of a Likert scale is determined by the applicability of the topic being investigated to the understanding and context of the respondents as well as the judgement of the item designer. Preston and Coleman (2000) reported that the rating scales in their study, that yielded the least reliable scores, turned out to be those with the fewest response categories.

In this study, computer software programs were used to calculate the scores, analyse the data and produce the graphic presentations, as discussed in section 1.7.4.4. The scores that emanated from the Likert-type scaled items were subjected to descriptive statistics, inferential statistics and data reduction techniques. The latter demonstrated internal consistencies (Cronbach alpha coefficients) as reported in Chapter 6. Croasmun and Ostrom (2011) emphasised the importance of calculating Cronbach alpha coefficients for internal consistency reliability in order to establish the relationship between all the items and their relationship with the total instrument. Furthermore, the debate over the use of a mid-point in a Likert scale has not been settled and remains the preference of the researcher (Croasmun & Ostrom, 2011).

1.7.4.3 Research procedure

A mixed methods research strategy was adopted which comprised a quantitative strand (customised survey questionnaire) focused on employers, and a qualitative strand (structured telephonic interviews) involving persons with physical disabilities. For validation of the quantitative strand, the customised survey questionnaire, once developed, was subjected to a pilot study. As expounded on in Chapter 5, experts were approached with the aim to canvass their opinions and identify any modifications to be made to the content and/or structure of the instrument. They hailed from academia, the public sector, the corporate sector and private practice in the field of industrial and organisational psychology, specifically, an HR manager in a large automotive plant, a director tasked with disability in a state department and three industrial psychologists, one of whom is now a retired professor. A pilot study consisting of experts provides a researcher with meaningful feedback about the

features of the instrument (Hox, De Leeuw & Dillman, 2008). Following refinement of the customised survey questionnaire, it was submitted to an online survey service provider for distribution to a purposive sample of South African formal sector employers. Distribution and collection occurred via electronic mail. The responses from the employers were then provided to the researcher.

1.7.4.4 Data analysis

In this study, the statistical techniques used to analyse the quantitative data, entailed descriptive statistics, inferential statistics and data reduction methods. Data present as fragmented pieces of information requiring statistical methods for analysis to enable the researcher to identify patterns in the data and make inferences related to the research question (Leedy & Ormrod, 2010). Descriptive statistics summarise data to identify patterns and explain results. These techniques include frequency tables, means and correlations (Teddlie & Tashakkori, 2009). Inferential statistics are used to estimate population characteristics or parameters (e.g. the mean) and to test hypotheses. Hypotheses represent expectations about differences between groups in the population or about relationships between variables (Durrheim, 1999b).

Factor analysis extracts a relatively small number of factors that underlie the relationships between a set of variables and is useful for reducing a mass of correlations. It enables a wide range of variables to be represented by a small number of underlying dimensions (Tredoux & Pretorius, 1999).

Structural equation modelling hypothesises that particular indicators (items) measure particular constructs (factors) (Kline, 2011). A structural equation model consists of a measurement model (set of observable variables) and a path model which describes relations of dependency between the latent variables (constructs) (McDonald & Ho, 2002).

The statistical methods implemented produced frequencies, percentages, means, chi-square tests, exploratory factor analysis and structural equation modelling,

illustrated with tables, bar graphs, pie graphs and diagrams, where appropriate. Structural equation modelling was not initially anticipated when the study commenced. The themes that emerged from the employers' text responses to the open-ended questions were, where applicable, transformed and presented in frequency tables.

At this juncture, the role of the statistician needs to be explained. The researcher and the statistician worked in close, face-to-face collaboration, for 136 hours, discussing the plan for analysis of the data, capturing and analysing the data, applying robustness checks, investigating patterns and identifying relationships in the sets of data obtained. The statistician cleaned the data to remove errors and applied the statistical methods, using IBM SPSS Statistics Version 24 for the descriptive and inferential statistics, as well as for exploratory factor analysis (EFA). For structural equation modelling (SEM), IBM SPSS Amos Version 24 was used. In the case of the Chi square test, the statistician trained the researcher on how to write up and interpret the data on the first round, whereafter the researcher followed suit. The EFA and SEM were also executed together, in close collaboration, including identifying outliers and deciding how to handle missing data. The text data generated by the various participants were analysed, coded manually and themes derived by the researcher, while the statistician captured the frequencies of these themes in tables. The codes deduced from the employers' data were audited by the researcher's supervisor and the codes derived from the data emanating from persons with physical disabilities were audited by the statistician who is a data scientist.

IBM SPSS is used by statisticians and researchers to rapidly and effectively execute data exploration, data cleaning, data engineering and data analysis, while reporting findings with ease (D Venter, personal communication, August 09, 2016). IBM SPSS software offers advanced statistical analysis, machine-learning algorithms, text analysis, integration of large data sets and seamless deployment into applications (IBM, 2020).

1.7.5 Research method: Qualitative strand of the mixed methods research strategy

Cohen and Crabtree (2006) suggested that qualitative approaches depend on naturalistic methods such as interviewing, observation and text analysis in order to construct a meaningful reality.

In this study, the qualitative strand of the mixed methods research consisted of data collected from persons with physical disabilities, by means of structured telephonic interviews. In a qualitative research endeavour, the researcher focuses on the meaning that the participants attach to an issue and considers this picture to resemble real life (Creswell & Creswell, 2018). Furthermore, an electronic inquiry, composed of three open-ended questions, was submitted to advocacy organisations and associated groups to also obtain their perspectives on certain aspects.

1.7.5.1 Research setting

This research did not entail field research and therefore characteristics of the research setting were inapplicable. Persons with physical disabilities responded to structured telephonic questions in their natural setting, whether at work or at home.

1.7.5.2 Entrée and establishing researcher roles

This research did not entail field research and therefore access to a research setting was inapplicable.

Persons with physical disabilities were contacted telephonically since many resided in distant towns and in different provinces while some had mobility restrictions. The telephonic discussion commenced with an explanation of the aim of the research and also obtaining their consent to participate, followed by posing the structured questions contained in the interview schedules. For this purpose, a qualified court interpreter was contracted to overcome language barriers. She was coached by the

researcher on the contents of the interview schedules, including gaining consent, clarifying and repeating responses, and recording the responses verbatim.

Access to advocacy organisations and associated groups was gained via electronic mail, which contained a formal letter that briefed them on the aim and context of the research, obtained their consent to participate and assured them of the confidentiality and anonymity of their responses.

1.7.5.3 Sampling of research participants

a Persons with physical disabilities

Persons with disabilities are considered a vulnerable group and their rights should be protected as described by the CRPD (2006). For two decades, the researcher has been involved in psycho-legal assessments of persons with disabilities, acquired as a result of injuries sustained in motor vehicle collisions, who lodged claims for compensation with the Road Accident Fund. From an existing database, which exceeded 7 000 cases at the time the study commenced, a convenience purposive sample was drawn in respect of the following criteria: Male and female individuals with physical disabilities, from any South African language group, aged between 18 and 55 years, in possession of at least a Grade 10 (Std 08) level of education, employed and unemployed. The researcher contracted a computer programmer who assisted with extracting the specific sample from the large database. It should be emphasised that it was a readily available convenience purposive sample of persons with physical disabilities acquired in vehicle collisions, but the cause of their impairment was immaterial to the research aims of the study. Researchers such as Snyman (2009), Van Staden (2011) and McKinney (2013) all referred to the difficulty locating persons with disabilities as samples. In this study, the sample of persons with physical disabilities amounted to 312, of whom 157 were unemployed and 155 were employed.

b Advocacy organisations and associated groups

Advocacy organisations have numerous objectives but, in essence, they act on any matter related to persons with disabilities (Bokies & Mhlari, 2009). Advocacy organisations involved with persons with disabilities were identified by means of the internet and approached to obtain the contact details of an appropriate person who could assist with an electronic inquiry composed of three open-ended questions. These institutions included Disabled People South Africa, the Association for the Physically Disabled, the National Council for Persons with Physical Disabilities in South Africa, the South African Disability Alliance and the Women's Achievement Network for Disability (L. Pretorius, email communication, August 25, 2015). The first two mentioned responded.

Associated groups, specifically disability placement agencies, also identified through the internet, were approached with the same inquiry composed of three open-ended questions. These encompassed DWDE, Progression-Transformation Enablers and I Can! Work Corporate Disability Solutions of whom two responded. Furthermore, the Occupational Therapy Association of South Africa and individual occupational therapists (also known as rehabilitation therapists) known to the researcher by virtue of our medico-legal work, were also approached. Three of the occupational therapists responded. None of the advocacy organisations or associated groups required managerial consent to participate, since the respondents were either the managers or the owners who participated. The responses of those who obliged, are reported in Chapter 6.

1.7.5.4 Data collection methods

a Persons with physical disabilities

The first empirical research aim of the study was to adopt a convergent mixed methods research approach in order to uncover the causes of exclusion of persons with physical disabilities from employment in the South African formal sector, while

the first literature research aim was to conceptualise the causes that culminate in barriers to employment experienced by persons with physical disabilities, as contained in the body of scholarship. Based on the literature review, the issues surrounding the exclusion of persons with physical disabilities from the workplace emerged and served as the frame of reference from which the questions contained in the two interview schedules were formulated. Interview protocols are used to conduct telephonic interviews (Creswell, 2009). The researcher developed two interview schedules, one for employed and one for unemployed persons with physical disabilities.

The convenience, purposive sample of persons with physical disabilities, drawn from a database of persons with physical disabilities that resulted from vehicle collisions, was interviewed telephonically, using a structured approach with questions focused on, inter alia, their current employment status; perceptions of the reasons for failure to secure gainful employment, if applicable; obstacles encountered in this endeavour; positive and negative experiences; and strategies adopted to pursue employment. A qualified court interpreter was contracted by the researcher to conduct the telephonic structured interviews. Apart from her proficiency in all of the official South African languages, enabling her to communicate with all the respondents, she holds a BA Translation and Interpretation degree and has more than 30 years experience in court interpretation. She also attends assessments at experts' offices to translate during their interviews with plaintiffs. She was coached by the researcher in all of the aspects contained in the two interview schedules designed for the purpose. Another reason for utilising her services was to ensure that all respondents received the same treatment (Creswell & Creswell, 2018). She recorded the responses verbatim (Hall & Hall, 1996) which were then transcribed, captured and analysed to identify codes and derive themes. Before a researcher reaches the stages of data analysis and interpretation, the trustworthiness of qualitative research already applies to sample adequacy since the type and size of the sample should suit the research design (O'Cathain, 2010).

b Advocacy organisations and associated groups

Certain advocacy organisations, disability placement agencies, the Occupational Therapy Association of South Africa and individual occupational therapists were contacted and approached with an electronic inquiry, composed of three open-ended questions, designed to gain their perspectives on the barriers to employment faced by persons with disabilities as well as proposed interventions. The questions posed to them entailed the following:

- (1) In your experience, what are the causes of exclusion of persons with disabilities (physical disabilities in particular) from formal employment, that is, what are these barriers?
- (2) What are the strategies adopted by your organisation to facilitate the employment of persons with disabilities?
- (3) What interventions or suggestions would you propose to promote the employment of persons with disabilities in the formal labour market?

1.7.5.5 Recording of data

The responses of persons with physical disabilities, obtained during the telephonic structured interviews, were recorded verbatim and repeated to them by the interpreter, to ensure accurate understanding of the content, while clarity was sought where necessary. All data were then transcribed, captured, sorted by question and stored safely for analysis. The electronic responses of advocacy organisations and associated groups, were sorted by question and stored safely for analysis. According to McNeeley (2012), quality control is ensured through accurate recording of interviews.

1.7.5.6 Data analysis

The researcher implemented thematic content analysis in respect of the qualitative strand of the convergent mixed methods research, which comprised the responses

of persons with physical disabilities obtained during the structured telephonic interviews. The aim was to identify themes within the text, aligned with the research questions (Bergman, 2010). The transcribed data were read several times, then coded manually by the researcher and categorised based on their underlying meaning (Creswell, 2009). Themes were then derived and again checked against the patterns formed by the data extracts (verbatim quotes) (Braun & Clarke, 2006). When data are transcribed systematically, reliability is enhanced (Silverman, 2000). The text as well as the derived codes and themes were submitted for co-coding, specifically the codes derived from the employers' data were audited by the researcher's supervisor and the codes derived from the data emanating from persons with physical disabilities were audited by the statistician who is a data scientist. Where possible, the frequency of themes was transformed into counts by the researcher and tabulated by the statistician using computer software, namely IBM SPSS Statistics, Version 24, as discussed in section 1.7.4.4. The trustworthiness of the data analysis is discussed in the next section.

1.7.6 Trustworthiness of data

The quality of quantitative research is usually judged by the criteria validity, reliability, replicability and generalisability, while qualitative research is normally subjected to the goals of credibility, confirmability, transferability and dependability. Researchers have debated whether the quality of mixed methods research should be assessed against these criteria for the separate components (quantitative and qualitative strands) or whether it should be judged as a whole, since the meta-inferences are derived from the whole study (O'Cathain, 2010). The concept of inference quality was introduced by Teddlie and Tashakkori (2009) which incorporates design quality in terms of methodological rigour and authenticity of conclusions drawn from results and findings of the mixed methods study.

The researcher took cognisance of the criteria applicable to quality data and implemented firstly, design quality, which refers to the suitability of designs to the research questions (Teddlie & Tashakkori, 2010). In this study, a customised survey questionnaire was designed to canvass the sample of employers' perspectives,

while structured telephonic interviews were conducted to obtain the views of the sample of persons with physical disabilities. The former encompassed the quantitative strand and the latter the qualitative strand of the mixed methods research. The quantitative data were analysed by means of appropriate statistical techniques and the qualitative data were subjected to detailed thematic content analysis in order to answer the research questions. Secondly, the researcher took cognisance of interpretive rigour (Teddlie & Tashakkori, 2010), which refers to, in essence, consistency. The researcher formulated interpretations based on the results and findings of the mixed methods research study and connected these to the relevant theory on the phenomenon. Specific conclusions were drawn and set against other plausible explanations, while the research questions remained in the foreground of the mixed methods enquiry. The meta-inferences drawn were based on inferences that emanated from both the quantitative results and the qualitative findings, while reflecting consistencies and inconsistencies that emerged. The meta-inferences were related to the aims of the study and whether these had been met (Nastasi, Hitchcock & Brown, 2010). The specific steps taken by the researcher to enhance the trustworthiness of the results and findings are described in Chapter 5.

1.7.7 Ethical considerations

The research project was classified as carrying minimal risk for employers, while the prospect existed that the results could be beneficial to respondents, namely, employers and persons with physical disabilities. Their names were kept confidential and a number was assigned to each respondent. All collected and analysed data were electronically stored, for retrieval when required, with access by the researcher and statistician only.

Ethical clearance to conduct the study involving humans was obtained from the UNISA College of Economic and Management Sciences Research Ethics Review Committee, based on a comprehensive document completed by the researcher. The specific aspects of the research that required ethics clearance entailed the research tools, namely the survey questionnaire and the structured telephonic interviews, as

well as any related documents. In respect of risk assessment, none was expected on the part of employers but the research included vulnerable persons (RSA, 2014b; CRPD, 2006), being persons with physical disabilities. This required sensitivity on the part of the researcher and court interpreter. Also, this sample included a contingent of persons who did not speak English and who lived in poverty. Personal and social information needed to be collected directly from these respondents. An existing database of individuals injured in traffic collisions was utilised in order to obtain a convenient, purposive sample of persons with physical disabilities that met the researcher's criteria (male and female potential respondents, aged between 18 and 55 years with a minimum education of Grade 10, from any of the official South African language groups). Employers provided electronic consent to participate in the study. Persons with physical disabilities provided telephonic consent to participate in the structured interviews. The court interpreter explained the reason for the research clearly before they agreed to participate, as contained in the introduction section of the interview schedules. The persons with physical disabilities who comprised the sample, were all adults, aged 23 to 56 years, and therefore qualified to agree or disagree to participation. They were clients of attorneys not the Road Accident Fund, until their claims were settled. It would have been near impossible to locate 312 attorneys some years later in order to obtain their consent to use their prior client's personal information. Following settlement of a claim, the attorney no longer has a mandate from the plaintiff (injured person) to represent him or her. A qualified court interpreter was contracted to conduct the structured telephonic interviews with the sample of persons with physical disabilities, since she holds a BA degree in Translation and Interpretation, has more than 30 years experience in translating in court, in all of the official South African languages. She also attends experts' interviews at their premises when required to translate. Incidentally, she is a person with a physical disability. She explained the aim of the research to each respondent, ensured that they understood what was expected of them, obtained their telephonic consent to participate and abided by the questions contained in the interview schedules. The researcher coached her on the administration of these interview schedules. She signed every interview schedule and undertook to keep the information obtained confidential. Apart from the

advantage of her language proficiency, the utilisation of a qualified court interpreter to conduct all the interviews with persons with physical disabilities ensured consistency of treatment across the board. The researcher had met these individuals some years previously when they were in the process of claiming compensation for their injuries sustained in traffic collisions. By the time that this research was conducted, their claims had been settled with the Road Accident Fund and they therefore could not have anticipated anything to be gained from their participation.

1.7.8 Reporting of the results and findings

As concisely conveyed by Babbie and Mouton (2014), research reports should be written in the best possible literary style, applying logic, clarity and honesty. In the quantitative strand of the mixed methods study, the data comprised responses from employers pertaining to their perspectives of and willingness to employ persons with physical disabilities. Responses to both closed and open-ended questions were obtained, resulting in numerical data as well as text for analyses. In the qualitative strand of the mixed methods study, the data consisted of responses from persons with physical disabilities pertaining to their experiences and views in the context of employment. These responses took the form of text that was coded in order to derive themes. In both strands, themes formed the headings under which the results and findings were discussed, supported by data extracts (verbatim quotes). Where possible, the data were transformed and presented in tables and graphs to facilitate discussion and interpretation of the findings.

1.8 RESULTS AND FINDINGS

1.8.1 Results of the quantitative data

The results of the quantitative strand of the mixed methods research obtained from the sample of private sector employers in this study, were analysed and interpreted in relation to the research aims, hypotheses formulated and the literature review. The statistical procedures applied were described and the results illustrated with

tables and graphs. The questions contained in the customised survey questionnaire resorted under certain dimensions according to which they were grouped and discussed. Furthermore, the responses to the open-ended questions contained in the customised survey questionnaire, which had served to augment the quantitative data, took the form of text which was coded, categorised and themes derived, supported by verbatim data extracts. Where possible, these findings were transformed into numerical data and tabulated. Following presentation of the descriptive statistics, the results of the industrial sector comparisons were reported and interpreted, also illustrated with tables and graphs. Finally, the results from the exploratory factor analysis and structural equation modelling implemented, were discussed and interpreted, as well as depicted in tables and diagrams. Contradictory and unexpected findings were reported.

1.8.2 Findings of the qualitative data

The findings of the qualitative strand of the mixed methods research obtained from the sample of persons with physical disabilities, took the form of text which was analysed, coded, categorised and themes derived for interpretation in relation to the research aims and the literature review. Themes were supported by verbatim data extracts and, where possible, findings were transformed into numerical data and tabulated.

1.9 DISCUSSION OF THE RESULTS AND FINDINGS

The results of the quantitative strand and the findings of the qualitative strand of the mixed methods research study were analysed and then compared, contrasted and interpreted in order to formulate meta-inferences and obtain a holistic explanation of the topic investigated (Venkatesh et al., 2013). Integration was facilitated by transforming qualitative findings into numerical data (Plano Clark, 2010), where possible, for ease of comparison.

The researcher integrated and discussed the various results and findings and, in each case, indicated whether the outcome supported or departed from the theory. The implication of a particular result or finding was then presented. Possible explanations for unexpected or contradictory findings were offered. The results and findings were assessed in terms of their theoretical, methodological and practical contributions. The results and findings of the research were evaluated in relation to the research aims of the study and hypotheses were supported or rejected. The transferability of the results and findings of the mixed methods research study to other settings was considered (Teddlie & Tashakkori, 2009).

1.10 CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

1.10.1 Conclusions

Conclusions were formulated as they pertained to the literature aims, empirical aims, central hypotheses and the general aim of the study. In the relevant sections, it was discussed whether or not the particular research aim had been achieved and whether the specific hypothesis had been supported or rejected.

Conclusions relating to the contributions of the study to the field of industrial and organisational psychology were drawn, especially the contributions of the literature review and the empirical study. The latter included contributions at a theoretical level, methodological level and practical level.

1.10.2 Limitations

Limitations of the literature review and those of the empirical study were identified, especially with regard to the samples and generalisability of the results and findings.

1.10.3 Recommendations

Recommendations were formulated in the context of organisations (employers) persons with disabilities and national policy. Furthermore, recommendations for future research were conceptualised.

1.11 CHAPTER SUMMARY

In this chapter the background to the research, the research problem statement, the research questions and the aims of the research were presented, followed by philosophical assumptions. Meta-theoretical constructs relating to disability were described, including models of disability, type of disability, prevalence of disability and employment rates, while policy frameworks were mentioned. The research design of the study was outlined, incorporating the literature review and the mixed methods research approaches and methods, as implemented in the quantitative and qualitative strands, respectively. The trustworthiness of the data and ethical considerations were addressed. The modus operandi for reporting, interpreting and discussing the results and findings of the mixed methods research study was communicated. Finally, reference was made to the conclusions, limitations and recommendations of the study.

1.12 CHAPTER LAYOUT

Chapter 1: Scientific orientation to the research

Chapter 2: Causes of exclusion of persons with physical disabilities from employment

Chapter 3: Challenges encountered by persons with disabilities to secure employment

Chapter 4: Mechanisms to promote workplace inclusion of persons with physical disabilities

Chapter 5: Research design and methodology

Chapter 6: Mixed methods research results and findings

Chapter 7: Conclusions, limitations and recommendations

CHAPTER 2

CAUSES OF EXCLUSION OF PERSONS WITH PHYSICAL DISABILITIES FROM EMPLOYMENT

In this chapter the causes of exclusion of persons with physical disabilities from the workplace are conceptualised as gleaned from the extant literature on the topic.

2.1 INTRODUCTION

An inclusive workplace refers to an enabling and accessible environment where all employees and customers are treated equally and in accordance with their rights, while persons with disabilities are included in decisions and policy formulation that affect them (SAHRC, 2017)

The causes that culminate in the exclusion of persons with physical disabilities from employment were investigated in line with the research aims of the study. The literature review was organised in accordance with themes that were derived from research undertaken in developed and developing countries, which specifically addressed the employment situation of persons with disabilities. According to Mouton (2001), a literature review can be arranged around a theme or a key construct in the study and this approach is prevalent in exploratory quantitative and qualitative research endeavours.

Both the economic and human rights-based perspectives of exclusion of persons with disabilities from employment are considered, followed by a description of the social model of disability as it pertains to this study. Attitude, as a construct, is described, particularly in the context of negative attitudes towards persons with disabilities. Negative perceptions of and attitudes towards persons with disabilities, as inferred from the literature, were categorised and described by the researcher in terms of sources of attitudes towards persons with disabilities in the organisational context and stereotyped perceptions. Other factors, not attributable to negative

attitudes, were also addressed. It should be mentioned that in the case of several of these categories, African and/or South African research could not be located.

Although the researcher focused on physical disability, for the most part, the literature did not differentiate between the types of disabilities. The perspectives of persons with physical disabilities relating to their challenges to secure employment are contained in Chapter 3, while appropriate mechanisms, to assuage this state of affairs, are described in Chapter 4.

2.1.1 Economic perspective

Buckup (2009), in the International Labour Office Executive Summary, investigated the economic price and consequences of excluding persons with disabilities from employment and reported that the results pertaining to ten low and middle-income developing countries in Asia (China, Thailand and Vietnam) and in Africa (Ethiopia, Malawi, Namibia, South Africa, Tanzania, Zambia and Zimbabwe) suggested that these economic losses relating to disability are large and measurable, ranging from three per cent (Vietnam) to seven per cent (South Africa) of the Gross Domestic Product (GDP). This finding implies a substantial impact on a country's economy.

2.1.2 Human rights-based perspective

Persons with disabilities count among the most marginalised on earth with higher rates of poverty, poorer health results, lower education levels and low economic participation (WHO, 2011).

In the USA, Snyder, Carmichael, Blackwell, Cleveland and Thornton (2010) found that despite the passage of decades since the Americans with Disabilities Act (ADA) was implemented, individuals with disabilities are still underrepresented in the workforce, tend to hold lower level jobs and are remunerated lower wages. They also experienced more discrimination and procedural injustice than their able-bodied

counterparts, while persons with non-physical disabilities reported more negative experiences than those with physical disabilities.

At a regional level in Africa, Combrinck and Mute (2014) conveyed that the Working Group on Older Persons and People with Disabilities in Africa was established by the African Commission on Human and Peoples' Rights in accordance with Resolution 143/45 of 2009. The terms of reference of the Working Group include researching the rights of persons with disabilities and advising the Commission on the adoption of a Protocol on the Rights of Persons with Disabilities, in line with the CRPD (2006).

The South African Human Rights Commission, in a report entitled "Towards a Barrier-free Society" (SAHRC, 2002), concluded that although South Africa has a progressive, rights-based constitution, citizens with disabilities continue to face barriers that prevent them from fully participating in society and they are still systematically denied fair access to their rights. A comprehensive South African Disability Act is offered as an alternative to piecemeal amendments of the current legislative framework.

South Africa signed and ratified the CRPD (2006) and its Optional Protocol in 2007 (Disabled World, 2010). Also, the South African Constitution specifically enshrines equality for persons with disabilities under Article 9(3) which makes reference to the need for a South African disability scholarship to promote the interests of persons with disabilities (Disabled World, 2010).

Following implementation of the CRPD (2006), perceptions of disability shifted from a social welfare approach to a human rights issue, resulting in governments of United Nations member countries reviewing their policy frameworks to promote economic empowerment of persons with disabilities (Mizunoya & Mitra, 2012). The CRPD is discussed in Chapter 4 but at this juncture it would be prudent to mention Article 27 which addresses work and employment, the essence of which reads as follows:

States Parties recognize the right of persons with disabilities to work, on an equal basis with others; this includes the right to the opportunity to gain a living by work freely chosen or accepted in a labour market and work environment that is open, inclusive and accessible to persons with disabilities (CRPD, 2006, p. 19).

Envisaged and existing policy frameworks that address the right to work of persons with disabilities are presented in Chapter 4.

2.2 SOCIAL MODEL OF DISABILITY

In essence, the social model entails the following aspects: The social context within which persons with disabilities function affects their full participation and inclusion in society; disability is a social construct resulting from the interaction of actual or perceived impairments with environmental barriers; focus is placed on the abilities of persons with disabilities with the aim to assuage social barriers and discrimination; and attitude changes in society are cultivated (WPRPD, 2015d).

The models of disability were alluded to in Chapter 1. The social model of disability has become the benchmark against which to address issues relating to disability, now regarded as a social construct. Human characteristics cannot be limited to fixed categories and therefore impairment, as a characteristic, does not define the person with a disability. As a consequence of the social model, the CRPD (2006) was formulated (Mostert, 2016). Therefore, signatory states of the CRPD and the employers who operate within their borders, need to change their orientation towards persons with disabilities (Hurling, 2008).

As posited by Shakespeare (2014), in addition to physical and economic barriers, the social model was extended to include problematic interpersonal encounters, social relations and psycho-emotional well-being. For example, a degenerative condition or a physical impairment can cause depression, anxiety and reduced self-esteem, with a concomitant impact on relationships.

This study investigated the causes of exclusion of persons with physical disabilities from employment and the social model of disability was applicable to the orientation of the research.

2.3 NEGATIVE ATTITUDES

The authors of the literature reviewed in respect of the employment challenges of persons with disabilities emanated from several disciplines, each with their own unique perspectives and contributions. These disciplines included, inter alia, psychology, education, sociology, medicine, occupational therapy/rehabilitation sciences and law. Employment, per se, falls within the realm of industrial and organisational psychology, but close collaboration with the other disciplines is essential in identifying the causes of exclusion and the interventions required to facilitate the employment of persons with disabilities.

Kerlinger and Lee (2000, p. 712), defined attitude as follows:

An attitude is an organized predisposition to think, feel, perceive and behave towards a referent or cognitive object. It is an enduring structure of beliefs that predisposes the individual to behave selectively towards attitude referents.

The National Director of the QuadPara Association of South Africa, Ari Seirlis, identified attitudes as being far more problematic in the employment of persons with disabilities than obeying the letter of any law (Seirlis & Swartz, 2006).

Balcazar (2000) differentiated between global attitudes, which are evaluative responses to general topics without planned actions or intentions, and specific attitudes, which have a narrow scope and may include a statement of intent. He found that while it has become socially appropriate for employers to espouse positive global attitudes towards individuals with disabilities, they appear to be less likely to endorse their hiring.

In the development of the Multidimensional Attitudes Scale Toward Persons with Disabilities (MAS), Vilchinsky, Werner and Findler (2010) found more than 30 definitions of the construct, attitude. Despite no universally accepted definition, they inferred that consensus exists about the assumption that attitudes are constructs with affective, cognitive and behavioural components.

Antonak and Livneh (2000) who were responsible for developing and refining the Scales of Attitudes toward Disabled Persons (SADP), regarded attitudes as latent or inferred psychosocial processes that lie dormant unless evoked by a specific referent. Furthermore, knowledge of the components underlying the onset and structure of attitudes towards persons with disabilities is required to change them and promote the integration of persons with disabilities into society.

The causes of exclusion of persons with physical disabilities from employment, as deduced from the extant literature, were demarcated by the researcher as sources of attitudes towards persons with disabilities in the organisational context, stereotyped perceptions and other factors.

2.4 SOURCES OF ATTITUDES TOWARDS PERSONS WITH DISABILITIES IN THE ORGANISATIONAL CONTEXT

In the case of this research, the literature review covered an expanse of studies and therefore only a selection of these were subjected to detailed discussion and critical evaluation. Studies older than 2009 were not included in this particular exercise. Apart from research studies, the literature review also contains authors' academic contributions and reviews of research executed. Against the backdrop of the topic and research aims of this study, the researcher selected literature that contained similar studies in order to present and compare their results; to relate and link this study to the body of scholarship; to substantiate the research problem and research questions; and to organise the findings into categories (Creswell, 2018). Furthermore, the literature review enabled the researcher to identify voids that could be addressed in this study so as to contribute to the current state of research.

Although frowned upon by the disability community, the term “persons with disabilities” will be abbreviated as “PWD” where necessary.

The majority of African studies found reflected the views of persons with disabilities, per se, and are therefore presented in Chapter 3.

2.4.1 Presentation and evaluation of selected studies that involved employers or policy makers

2.4.1.1 Studies in developed countries

These studies are depicted in Table 2.1

Table 2.1

Employers' perspectives in developed countries

Source & Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Chan, Strauser, Maher, Lee, Jones, and Johnson (2010)</p> <p>To investigate demand-side employment factors that could influence employment and retention of persons with physical disabilities (Demand-side refers to jobs that the employer needs to fill and support from placement specialists when hiring PWD)</p>	<p>Survey with 64 items. Sample of 132 HR and line managers in the Midwest, USA. Descriptive stats, multiple regression & correlation analysis</p> <p>Receptivity to hiring PWDs is significantly related to strong commitment to diversity and knowledge of related legislation and job accommodation</p>	<p>Managers are moderately positive about the productivity and reliability of PWDs. Barriers include lack of commitment to include PWDs in their diversity plans; and inadequate knowledge of related legislation and accommodation for PWDs</p>	<p>Use of convenience sample; limited generalisability of results; respondents were from the Midwest in the USA only; and possible presence of social desirability in self-reporting on disability groups.</p>	<p>Persuade employers to include disability in diversity programmes; implement incentives for managers to hire PWDs; develop internships; present sensitivity training; identify occupations that are in demand and train PWD for these; prepare PWDs for interviewing, workplace socialisation and teamwork.</p> <p>All of these initiatives would also apply to South Africa as is evident in the sample of employers' responses in this study.</p>

Source & Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Copeland, Chan, Bezyak, and Frasier (2010)</p> <p>To assess cognitive and affective reactions of employers towards persons with disabilities in the workplace.</p>	<p>Survey using subscales of the Disability Questionnaire. Sample of 142 employers in Colorado Springs, USA. Exploratory factor analysis (EFA) & multiple regression analysis</p> <p>Three factors emerged from the EFA: Negative perceptions, willingness to accommodate and equal treatment, all of which showed a significant correlation with level of experience working with PWDs</p>	<p>Employers did not show significant negative reactions towards PWDs; they maintained a reasonably positive attitude about job accommodation; they had highly positive attitudes about treating PWDs and able-bodied employees the same. A high level of experience working with PWDs, can result in positive attitudes and perspectives about PWDs</p>	<p>Results confined to employers in Colorado Springs; limited generalisability; possible bias in self-reporting and social desirability on sensitive issues as well as legal obligation to employ PWDs</p>	<p>Promoting awareness of negative attitudes towards PWDs by educating employers about workplace accommodation and increased exposure to PWDs can improve attitudes towards them.</p> <p>These outcomes could apply to South Africa, as also found by this researcher</p>
Source & Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Ju, Zhang, and Pacha (2012)</p> <p>To identify “employability” skills that employers require from entry-level employees with and without disabilities. These are generic skills required in all jobs at all levels, e.g., work ethic, team-orientation, communication skills, social responsibility, reading comprehension, social skills, reliability, interest, efficiency and adaptability</p>	<p>Survey, self-designed with 36 items. Sample of 168 employers, presumably based in Texas, USA. Factor analysis, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA)</p> <p>Five constructs confirmed by satisfactory model fit indices. Five most important “employability” skills were integrity/honesty, ability to follow instructions, respect for others, punctuality, and show high regard for safety procedures</p>	<p>The “top” five skills are personality traits rather than job skills. A difference was that employers expected PWDs to show a high regard for safety, while able-bodied employees required reading comprehension</p>	<p>Self-reporting could produce “politically correct” responses; results might not be generalisable to the entire USA; the respondents might have been a group with better awareness of disability matters.</p> <p>Surveys have inherent limitations, e.g., being unable to determine a respondent’s reasons for their answers</p>	<p>“Employability” skills are needed to secure and retain employment, and should be taught at school; educators are crucial to “employability” skills training to ensure targeted career preparation, since employers need work-ready applicants; PWDs need to master job applications, interviewing skills and self-presentation, all of which should be taught at school.</p> <p>The above could also apply to South Africa and its schools</p>

Source & Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Strindlund, Abrandt-Dahlgren, and Ståhl (2019)</p> <p>To increase the understanding of employers' views on the employability of persons with disabilities</p>	<p>Semi-structured interviews with a sample of 27 Swedish employer representatives. Phenomenographic approach with thematic analysis</p> <p>Three categories emerged, namely employability as constrained by disability; employability as independent of disability; and employability as conditional</p>	<p>From the three categories, three common themes emerged, namely trust, contribution and support. According to some employers, there was a lack of trust in the reliability of PWDs which curtailed employability. In respect of making a contribution, some employers perceived PWDs as being demanding in terms of energy, time and resources. The third theme, support, pertained to employers' criticism of the nature of support provided to PWDs by the authorities</p>	<p>The findings of the qualitative study are not generalisable to the broader population. Not all professional areas of work were included</p>	<p>Employers' views on the employability of PWDs are qualitatively different and complex, which may partly explain the inconsistencies in the results of related studies.</p> <p>One can accept that South African employers would also maintain diverse points of view in respect of the employability of PWDs</p>

2.4.1.2 Studies in developing countries

These studies are illustrated in Tables 2.2 and 2.3

a Uganda

Table 2.2

Role players' perspectives in Uganda

Source & Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Ojok (2015)</p> <p>To determine the status of the Persons with Disabilities Act (2006) of Uganda and investigate the barriers that delay its implementation</p>	<p>Semi-structured interviews with a sample of 25 policy makers, implementing officials, academics and leaders of disabled persons' organisations.</p> <p>Implementation of the act in Uganda had been delayed by several factors such as gaps in the law that made it "not implementable"; the language was forceful and ambiguous; duplication with other laws; and a lack of penalties for non-compliance</p>	<p>Despite support for and commitment to implement the Act, the necessary resources had not been allocated, the tax incentive was repealed and disabled peoples' organisations should have exerted more pressure to facilitate its implementation.</p> <p>The study found evidence of barriers to employment encountered by PWDs, such as negative attitudes and discrimination against them by employers</p>	<p>Lower level stakeholders, such as municipalities and town councils, were excluded. All the participants had a stake in disability which could have affected their objectivity. The study focused on only one part of the Act, namely employment policy</p>	<p>Implementation of an Act requires high-level support, funding, a skilled team and pressure from disability advocates</p> <p>The Ugandan Disability Act is being reformed to include reasonable accommodation and to be aligned with the CRPD. There should be a quota system for the employment of PWDs, attached to a penalty and reward system to enforce compliance.</p> <p>In South Africa, all disability-related legislation is being reviewed in line with the CRPD, as discussed in Chapter 4</p>

b South Africa

Table 2.3

Employers' perspectives in South Africa

Source & Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Smit (2012)</p> <p>To investigate the conditions pertaining to the employment of PWDs in three franchised hotels in Cape Town</p>	<p>Interviews held with three cases (hotel staff). The total sample for the three hotels consisted of three general managers, one HR manager, one financial manager, one assistant manager, nine able-bodied employees and two PWDs.</p> <p>Participants ascribed their low employment rate of PWDs to the nature of jobs in their industry which requires physical activity and guest relations; PWDs did not apply for jobs; there was a lack of training in awareness of disability; and accommodation of employees with disabilities was limited</p>	<p>The participants generally lacked knowledge of disability in the broad sense, how to be inclusive and where to find PWDs. The majority saw disability as physical impairment. There was concern about the time and costs associated with accommodating a PWD. Also, employment equity was seen as related to racial integration, not disability. PWDs were considered suited to "back-of-house" jobs such as accounting, planning, reservations, etc. However, able-bodied employees were generally positive about working alongside PWDs. They also indicated a need for training in disability matters to increase PWDs in the workplace</p>	<p>The samples were small and dictated by management, likely not generalisable to the hospitality sector at large</p>	<p>BBBEE scoring was found to be the major reason for employing PWDs. Also, their employment would have guests perceive the hotel as practising equity and non-discrimination. Universal access remains a far cry, owing to the perception of high costs. Overall, there seemed to be a great need for awareness creation about disability, since discrimination and stereotypes about PWDs prevail</p>

Source & Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Van Staden (2011)</p> <p>Constraints that inhibit the employment of persons with disabilities and the development of a human resources management strategy to address these</p>	<p>Concurrent triangulation, self-designed survey questionnaire with Likert-type items and open-ended questions.</p> <p>Sample of 38 persons with disabilities and 46 persons without disabilities, all employed except for three.</p> <p>Descriptive and inferential statistics, as well as Atlas ti.</p> <p>A total of 27 constraints to the employment of PWDs were identified</p>	<p>Each constraint was presented as a conclusion and 18 strategies as possible solutions were offered. These included the development of policies in respect of the employment of PWDs, related targets, training in disability management, reasonable accommodation, etc.</p>	<p>Small sample and limited information on disability by type</p>	<p>A disability management strategy should enhance consistent behaviour on the part of HR role players in changing negative perceptions about PWDs and also define inherent job requirements to increase their employment in suitable jobs</p>
Source & Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Wiggett-Barnard (2013)</p> <p>To investigate South African employer attitudes and practices relating to the employment of PWDs as well as experiences with and of PWDs in the sample of companies</p>	<p>Mixed methods research. Self-designed online survey questionnaire with 49 questions, sent to South African companies of whom 86 participated, although some did not answer all the questions. Semi-structured interviews were conducted with three companies (case studies) that already employ PWDs in excess of the 2% target. A total of 16 PWDs were interviewed. Non-parametric tests used for the survey data obtained.</p> <p>Work teams were receptive to interaction with productive PWDs, which counters stigma. Physical accessibility was emphasised while other types of accommodation were disregarded.</p>	<p>Generally positive attitudes towards hiring of PWDs yet they remain under-represented in the labour market. Employers also struggle to find suitable PWDs for vacancies. Physical and sensory disabilities were preferred to psychiatric or intellectual disabilities. Also, ignorance of and negative attitudes towards PWDs still prevailed. Employers reported satisfaction with the job performance of PWDs. Positive experiences implied future intent to hire PWDs. Few PWDs had been promoted and few held managerial positions, often owing to inflexible job descriptions. Accommodation for PWDs was still perceived as costly. Employers were familiar with the Employment Equity Act but not with other disability-related policies</p>	<p>Small sample of employers. Intentions to employ PWDs might not materialise. Generalisability to other companies cannot be assumed. Response bias since companies already employed PWDs where a positive attitude prevailed. The length of the survey questionnaire may have reduced the response rate</p>	<p>PWDs are more likely to secure work with larger organisations. Flexible job descriptions would increase the employment rate of PWDs. Monitoring of quotas and incentives to employers for employing PWDs. Recommendations were made with regard to management commitment, recruitment, accommodation and promotion</p>

2.4.1.3 Evaluation of the studies selected for detailed analysis

Certain patterns emerged from these studies. The sample sizes ranged from three to 168 employers, depending on whether interviews or surveys were conducted, the latter being the approach in the majority of cases. A general weakness that became evident was the lack of generalisability of the results owing to either small sample sizes or the geographical location of the participants. However, clear themes emerged of which the main ones entailed limited knowledge and awareness of disability matters. Such knowledge and legislation were crucial and had a direct impact on employers' receptivity to hiring persons with disabilities, as well as their willingness to implement the accommodation required by them to perform the essential functions of the job. In the same vein, awareness of what disability entails, needs to be created through training and exposure to persons with disabilities. Research makes it clear that experience with persons with disabilities culminates in positive attitudes and a willingness to employ them. Furthermore, it emerged that employers should receive incentives, such as tax concessions, to employ persons with disabilities. An interesting suggestion was made by Ju et al. (2012) that generic "employability" skills should be taught at school.

As was the case with this research, these selected studies focused on the factors that influence an employer's receptivity to hiring persons with disabilities. The researcher set out to identify the causes of exclusion of persons with physical disabilities from the workplace as well as the interventions that could raise their employment rate.

Taking cognisance of the limitations of the selected studies aids in identifying voids in the research. This researcher endeavoured to obtain a larger sample of employers who hailed from different sectors all over South Africa. Furthermore, the customised survey questionnaire distributed to employers, contained not only closed items, but also a number of open-ended questions to augment the Likert-type scaled and dichotomous items, in order to counter mechanical responses.

A mixed methods research strategy was adopted that included both employers and persons with physical disabilities, in order to obtain both sides' viewpoints. Thus, a wide range of perspectives of various issues could be gathered for analysis in both this study and in future research, to take the field forward.

2.4.2 Specific organisational dimensions

The question arose whether South Africa, as a developing country, with a unique population composition and employment legislation, would render comparable or different outcomes to research than is the case with developed countries.

The causes of exclusion of persons with disabilities from employment would be the very dimensions to address in order to create an inclusive work environment where all individuals are treated with respect and their rights upheld. This implies that persons with disabilities should be included in matters that affect them such as decisions, policy formulation and representation on relevant committees in the organisation (SAHRC, 2017).

As indicated earlier in this chapter, based on the literature review and therefore a combination of other researchers' findings, the researcher demarcated the causes of exclusion of persons with physical disabilities from employment as sources of attitudes towards persons with disabilities in the organisational context, stereotyped perceptions and other factors.

A long list of causes of exclusion of persons with disabilities from the workplace emanated from the extant literature. While all of these causes would need to be addressed, one of the main contributions of this study entailed that latent constructs, which appear to underlie the exclusion of persons with physical disabilities from employment, were derived from exploratory factor analysis (EFA) and structural equation modelling (SEM). These were associated with particular variables (indicators) variables to measure employers' receptivity to hiring persons with physical disabilities and could serve as a point of departure

for the implementation of strategic interventions and innovative policies to promote the employment of persons with disabilities.

2.4.2.1 Type of organisation (sector)

The type of organisation, or the sector in which it operates, emerged as a key factor in the receptivity of employers to hiring a person with a disability. However, studies of the relationship between the type of industry (sector) and employer attitudes towards persons with disabilities in the workplace produced mixed findings.

a Developed countries

In the UK, Goldstone (2002) found that the sectors least likely to employ persons with disabilities were construction, services, trade and manufacturing. Unger (2002) alluded to USA employers in the social service industry who expressed less concern with aspects such as poor enthusiasm, bizarre behaviours and poor memory than employers representing other industries. In the same vein, Dixon, Kruse and Van Horn (2003) reported that, in their large-scale study of employers in the USA, respondents indicated that persons with disabilities would be unable to perform their work roles effectively owing to the nature of the particular business.

Some industries appeared more positive about the employment of persons with disabilities than others. Lengnick-Hall, Gaunt and Brooks (2005) established that persons with disabilities were more likely to secure employment in fast-growing sectors than in those with slower growth. They cited Yellin and Trupin (2000), who found that fast-growing sectors such as professional services and the wholesale/retail trade improved the chances of persons with disabilities retaining their jobs as opposed to low-growth sectors such as agriculture, mining, construction and manufacturing.

Domzal, Houtenville and Sharma (2008) also discerned that the type of organisation and therefore the nature of their work could be such that it cannot be effectively performed by a person with a disability, a hiring obstacle cited by the majority of companies surveyed. However, public administration organisations in the USA were more likely to actively recruit persons with disabilities than their private sector counterparts; and among the latter, those in service industries were more likely to actively recruit than those in manufacturing industries. Service industries had the largest number of employers that actively recruited persons with disabilities (Domzal et al., 2008).

Hernandez et al. (2012) found that, given the notable differences between non-profit and for-profit organisations, it was surprising that limited attitudinal research had focused on sectoral differences in employing persons with disabilities. However, there were studies that found that non-profit employers held more favourable views towards workers with disabilities than for-profit ones.

b Developing countries

For a master's dissertation, Tshobotlwane (2005) interviewed 52 contractors, 35 general workers and 20 persons with disabilities working on construction sites in the Western Cape in order to ascertain the potential role of persons with physical disabilities and the barriers they faced in the construction sector. In essence, the findings showed that only a few contractors were willing to employ persons with disabilities, while the majority of participants opined that persons with disabilities would be more suited to on-site administrative roles and positions at their head offices.

In South Africa, the Commission for Employment Equity (CEE) releases annual reports based on, inter alia, Employment Equity Reports submitted by designated employers. In the period 2018 to 2019, 27 485 such reports were received, covering 7 415 876 employees, of whom the majority were in Gauteng, Western Cape and KwaZulu-Natal. The prevalence of disability by occupational

level was reported in Chapter 1. Bearing in mind that the overall employment rate of persons with disabilities, as reported by the CEE, has not yet met the current two per cent target (RSA, 2006) it stands to reason that the percentage per sector would be nonsignificant. According to S Pillay, Director: Governance and Compliance, Department of Social Development, the current disability employment equity target is being increased (Personal communication, November 10, 2020). However, sectoral employment equity numerical targets are envisaged (RSA, 2020d).

The researcher inferred that there appears to be consistency in findings that sectors such as mining, construction, manufacturing and certain (unspecified) service industries would be recalcitrant towards employing persons with physical disabilities. However, in investigating the relationship between the type of organisation and receptivity to employing persons with disabilities, the researcher found that, in the literature, limited emphasis was placed on the type and severity of the disability. In most cases, generic references were made to disability. Certainly, a person who is confined to a wheelchair would probably be unable to work underground in a mine or on a construction site or on a farm, but there are forms of disability, including physical disabilities, that do not hamper access to an array of industrial sectors. To make a contribution to knowledge, this research covered a contingent of formal private sector organisations operating in different sectors in South Africa, and specified disabilities by type in order to ascertain specific trends in the employment of persons with disabilities.

2.4.2.2 Size of the organisation (staff complement)

The size of the organisation was identified as a determinant in the employment of persons with disabilities. A perception that emerged is that larger companies are more likely to employ persons with disabilities since they have more jobs on offer and greater resources for associated support, compared with smaller organisations.

a Developed countries

In a review of the literature, Unger (2002) reported mixed findings in an examination of the relationship between employer size and attitudes towards persons with disabilities, attributed to variations in geographical areas of samples and data gathering procedures. In a large-scale study in the USA, Dixon et al. (2003) found that larger firms were more likely than smaller ones to recruit workers with disabilities and accommodate them. Similarly, in another large-scale survey of employers in 12 industrial sectors in the USA, Domzal et al. (2008) found that larger and medium-sized companies were more likely to actively recruit persons with disabilities than smaller ones.

b Developing countries

Kleynhans and Kotzé (2010) deduced from the research that larger companies with in excess of 45 employees displayed more positive attitudes towards persons with disabilities than smaller ones.

The researcher surmised that the size of an organisation plays a role in overall receptivity to employing persons with disabilities, but the type of organisation would warrant consideration in conjunction with the nature and severity of the applicant's disability. To make a contribution to knowledge, this research focused on formal private sector organisations in South Africa of varying sizes in terms of staff complement in order to accommodate this variable as it relates to the research aims in terms of causes of exclusion of persons with physical disabilities from employment.

2.4.2.3 Culture of the organisation

The phenomenon of organisational culture comprises a myriad of aspects of organisational life, including vision, mission, goals, structure, policies, product range, customer base and focus, affiliations and so on. By implication, these

facets of an organisation form its values and would influence the managerial style, adaptability to change, flexibility and receptivity to diversity and inclusiveness. By implication, the willingness to employ persons with disabilities becomes relevant.

Schur, Kruse and Blanck (2005) cited Schein (1999) in describing the three levels of culture within organisations. The most fundamental level entails values and norms that guide an organisation when encountering new situations and problems. Thus corporate culture consists of a pattern of shared assumptions learnt, as problems were solved in terms of external adaptation and internal integration. The next level consists of solutions considered valid, that are taught to new members and comprise shared understandings about the organisation's, strategies, goals, philosophies and policies. The third level is described as manifestations of culture, which include the physical space and social environment, as well as behaviour and dress codes.

The researcher inferred that, while an organisation may cultivate a culture that is conducive to the employment of persons with disabilities, such would also require, inter alia, supportive co-worker and supervisory attitudes as well as suitable job content and physical accessibility, all of which were addressed in this study.

Those dimensions of organisational culture that have a bearing on the employment of persons with disabilities, were extrapolated as follows:

a Flexibility

A flexible organisational culture would embrace change, and thus, by implication, be receptive to the employment of persons with disabilities.

i Developed countries

Stone and Colella (1996) purported that bureaucratic organisations with standardised, impersonal systems, could disadvantage persons with disabilities since they might be unable to comply with rigid rules and procedures, experience obstacles to job performance and encounter treatment-related problems. Co-workers might resent personalised treatment, such as special accommodation, while values associated with competitive achievement or conformity in appearance might reduce the extent to which persons with disabilities are considered qualified for jobs.

Wooten and James (2005) posited that the so-called “adaptive organisational learning perspective” assumes learning to be a function of changing behaviour either in response to experience or as a result of failure. Predetermined goals, rules, strategies and work ideologies could inhibit experimenting with new procedures and result in barriers and failure to properly manage and prevent discrimination against persons with disabilities.

Flexibility in the workplace facilitates the successful integration of assistive technology for persons with certain disabilities, needed to execute their work effectively, according to Driscoll, Rodger, and De Jonge (2001).

ii Developing countries

The contributions of authors who hail from developed countries are accepted as also applicable to developing countries, since flexibility in respect of hiring persons with disabilities would be required in order to abide by the stipulations of the CRPD (2006).

In a changing environment, with ever-increasing emphasis on employment equity and equality, including hiring persons with disabilities, organisations are challenged to adapt their strategies, rules and procedures in order to

remain relevant, competitive and socially responsible. To make a contribution to knowledge, this study endeavoured to determine employers' receptivity to hiring persons with disabilities, especially physical disabilities.

b Diversity management

Disability is accepted as part of diversity. It emerged from the literature that diversity management encompasses several concepts, including diversity plans, policies and training programmes.

i Developed countries

The majority of organisational diversity strategies appear to focus on race, ethnicity and gender, with limited emphasis on disability, according to Ball, Monaco, Schmeling, Schartz, and Blanck (2005). Spataro (2005) posed the following question: What does a culture of differentiation imply for diversity in general? This is probably the most common type of culture in businesses and social environments in the USA. A culture of differentiation means that those who possess the desired characteristics will enjoy advantages. However, if a person hails from a traditionally underrepresented group (e.g., being disabled, female or a racial minority) that is not desired in a particular organisation, his or her contributions could be discounted, with fewer opportunities to succeed.

ii Developing countries

Smallwood and Haupt (2008) analysed the underutilisation of persons with disabilities in the construction sector since, arguably, this industry trails behind other sectors in South Africa in this regard. However, several construction organisations have come to pursue diversity in the workplace in order to remain competitive and to respond to globalisation of their activities.

In South Africa, diversity management and training have been prevalent for decades, initially inspired by calls for affirmative action. According to Christianson (2012), there is a small percentage against employees with disabilities who are in employment and deriving benefit from statutory protections. Also, few cases challenging unfair discrimination against employees with disabilities have come before the courts.

The researcher inferred that disability, per se, has not yet formed part and parcel of diversity policies and training courses at the level of formal private sector organisations. To make a contribution to knowledge, this research addressed disability, as a component of diversity, by exploring both the presence of training in disability matters and organisational disability policies. Interventions and policy frameworks to facilitate the inclusion of persons with disabilities in a diverse workplace are identified and described in Chapter 4.

c Management commitment

It transpired from the literature that without the commitment of management to diversity and, by implication, the employment of persons with disabilities, their inclusion in the workplace would not increase.

i Developed countries

Stone and Colella (1996) predicted that when top management is committed to including persons with disabilities in the workplace and managers are rewarded accordingly, persons with disabilities will be placed in challenging jobs, be included in work group activities and be afforded opportunities for career advancement.

According to Domzal et al (2008) and Gilbride, Stensrud, Vandergoot, and Golden (2003), commitment and values concerning inclusion of persons with disabilities in employment should emanate from top management. Chan et al.

(2010) reported that managers appeared quite positive about persons with disabilities as being productive and reliable, but barriers to hiring them included a lack of strong commitment to include persons with disabilities in diversity plans, a lack of resources to recruit and retain them and insufficient training in both labour legislation and the nature of workplace accommodation required by them.

ii Developing countries

In the South African context, Gida and Ortlepp (2007) inferred from their study that managers who acknowledge the importance of employing persons with disabilities are generally supportive but not necessarily actively involved and the human resources (HR) department is then tasked with the implementation process. It appeared that line managers only take an interest in the inclusion of persons with disabilities into the workplace when specific targets form part of their performance rewards. In some instances, targets are set, but there is no monitoring of achievement of these and no penalties for non-compliance.

Bezuidenhout, Bischoff, Buhlungu, and Lewins (2008) concluded that employment equity as practised in South Africa does not take disability seriously. Lip service is paid, but there is little pressure and inadequate progress in this regard across the different sectors.

The researcher surmised that organisational commitment to employ persons with disabilities has not yet been adequately fostered and monitored by senior management and, where present, the human resources function has been tasked to facilitate such employment. A lack of management commitment to diversity and transformation would thwart the inclusion of persons with disabilities. However, such commitment would be influenced by the nature of the organisation and the type of disability that its management would be able or willing to include. To make a contribution to knowledge, in this study, the researcher covered the aspects of accountability for meeting disability employment targets, if already implemented, as well as the existence and

nature of incentives and penalties for compliance and non-compliance, respectively.

d Disability policies and programmes at organisational level

Appropriate policies and programmes at the level of the organisation, and thus the employer, would accelerate the inclusion of persons with disabilities in the workplace and facilitate their full participation in decisions that affect them. The absence of such suggests that a concerted effort to employ persons with disabilities would likely not exist. Public policy formulated by organs of the state to ensure equality and fairness in the workplace are presented in Chapter 4, while an overview of progress made in South Africa in respect of the employment of persons with disabilities is conveyed in section 2.7 of this chapter.

ii Developed countries

According to Stone and Colella (1996), organisational norms and values influence the formulation of policies and practices which dictate the design of jobs, staffing methods, evaluation procedures and reward systems, all of which could have an impact on persons with disabilities. Also, job analysis, recruitment and selection could determine whether persons with disabilities are perceived as qualified for jobs and, if not, they might be denied employment or promotion since they do not display the “ideal” characteristics.

Brennan, Hemenway, King, Rohani, and Word (2003) found that businesses with formal disability policies in place tended to maintain more positive attitudes towards persons with disabilities, while those with no such employees as well as no disability policies were inclined to have more negative attitudes towards them. In their study of Fortune 100 Companies, Ball et al. (2005) reported that companies in the technology sector represented on the Fortune 100 list were the most consistent in their inclusion of persons with disabilities in their diversity policies. In instances where diversity policy included persons with disabilities,

many companies failed to mention a specific commitment to the inclusion of persons with disabilities, per se, but commended their own accomplishments with other under-represented groups in the USA.

In a large-scale survey, the Kessler Foundation (2010) found that medium-sized and large companies were more likely to have diversity policies and programmes. According to Hyland and Rutigliano (2013), while most companies have diversity policies and programmes, few have disability-specific policies or programmes, yet the latter would create awareness and ensure inclusion of persons with disabilities in the organisation.

ii Developing countries

In the case of South Africa, Gida and Ortlepp (2007) posited that the organisations sampled did not have a policy for the employment of persons with disabilities, but were working on a framework for such. They were ostensibly addressing the employment of persons with disabilities as only one aspect of their employment equity plan, not based on a strong business case. The researchers declared that their findings supported the assertions made in the literature that persons with disabilities remained the most disadvantaged of the disadvantaged.

At a Parliamentary Monitoring Group briefing session (2013), Disabled People South Africa (DPSA) reported that policies relating to disability were neither enforced nor attached to penalties for failure to comply.

It would seem that in South African organisations, a policy or programme to recruit and appoint persons with disabilities had not yet emerged as a separate endeavour containing specific guidelines and targets, but instead, if in place, formed part of an overall employment equity strategy. The researcher inferred that larger companies were more inclined to have formulated disability policies which, by implication, suggested a willingness to include persons with disabilities

in the workplace. However, the mere presence of a diversity policy that includes disability does not necessarily amount to employment. Any organisational disability policies and programmes would need to take cognisance of prevailing disability-related policy frameworks, as discussed in Chapter 4. To make a contribution to knowledge, the researcher undertook to establish the prevalence of disability policies in South African formal private sector organisations and, where absent, their willingness to adopt such policies.

e Training in disability matters

The need for training to impart knowledge and promote understanding of disability ties in with the lack of awareness of disability in general, which culminates in negative attitudes. In the context of diversity management, which has become customary in reputable organisations, training in disability matters should be specifically implemented to counter these negative attitudes.

i Developed countries

Stone and Colella (1996) suggested that organisations could use education and training programmes to modify co-workers' expectations of persons with disabilities and thus allay negative reactions, especially where rewards are shared.

Hagner and Cooney (2003), Dixon et al. (2003) and the Kessler Foundation (2010), found in their respective studies in the USA, that supervisors and managers reported that they had had little or no training relating to managing individuals with disabilities. They felt unprepared to address problems or implement appropriate accommodation for employees with disabilities. Paetzold et al. (2008) posited that organisations need to learn how to manage disability, including the accommodation process, and create a culture, through training, that embraces these aspects. Furthermore, they found that accommodation can be perceived by peers as unfair and that it enabled the person to have a

performance advantage, to absorb less stressful tasks and to enjoy special furniture and work hours. Chan et al. (2010) suggested training to cultivate sensitivity and reduce stigma as well as incentives to motivate managers to appoint and retain persons with disabilities.

ii Developing countries

In a South African study, Wiggett-Barnard (2013) found that disability awareness training for staff was a recurrent theme and perceived by the sample of employers as an effective facilitator for the employment of persons with disabilities.

The researcher surmised from the scholarship that training in disability matters, which includes managing persons with disabilities, modifying negative perceptions and expectations, creating sensitivity to their situation and implementing appropriate accommodation, remains deficient. Policies on the employment of persons with disabilities would be expected to go hand in hand with training in disability matters. Furthermore, such training would need to be based on the content of the CRPD (2006), the South African Baseline Country Report (2013) that was submitted to the United Nations and all disability-related legislation and policies, as presented in Chapter 4. To make a contribution to knowledge, this researcher specifically posed a question about the presence of training in disability matters in organisations to the participating South African formal private sector employers.

f Employment quotas

A discussion of diversity in organisations would likely be flawed without reference to the controversial concepts of tokenism, hiring quotas, “window dressing” and charitable employment, all of which can evoke negative attitudes and even lead to “lip service”.

i Developed countries

As far back as 1987, Colorez and Geist indicated that positive attitudes towards hiring persons with disabilities might not necessarily reflect a willingness to actually hire them, which implies “lip service”. Stone and Colella (1996) postulated that legislation might not change reactions to persons with certain types of disabilities such as facial disfigurement. Also, negative reactions among able-bodied employees could transpire if hiring quotas are perceived as preferential treatment of persons with disabilities, irrespective of their abilities.

Wooten and James (2005) contended that organisations should stop “window dressing” and engage in higher-order learning to develop effective routines that enable diversity and counter discrimination. Robert and Harlan (2006) came across situations where persons with disabilities were segregated by physical space or concealed by room dividers in the workplace. According to Luecking (2008), historically, employers harboured conflicting views about disability and employing persons with disabilities, while hiring initiatives were driven by charitable appeals, such as the so-called “Hire the Handicapped” campaigns at the time.

ii Developing countries

The National Director of the QuadPara Association of South Africa, Ari Seirlis (Seirlis & Swartz, 2006) purported that so-called “window-dressing” or branding an employee as an equity candidate, exacerbates marginalisation and also disempowers the individual, such as a person with a disability.

In a South African study, Oosthuizen and Naidoo (2010) detected certain themes which emerged from the experiences of previously disadvantaged groups in terms of employment equity, namely a lack of training and development, unfairness in the workplace, preferential treatment of African women, minimal

inclusion of persons with disabilities, negative expectations of designated groups, tokenism, discrimination and unequal salaries and benefits.

In the case of South Africa, the equity target that two per cent of staff complement should comprise persons with disabilities, has not been met, as reflected in the Annual Reports of the Commission for Employment Equity, including the most recent publication referred to in Chapter 1 (RSA, 2019).

In August 2018, South Africa appeared before the United Nations Committee on the Rights of Persons with Disabilities to respond to a list of issues relating to the South African Baseline Country Report submitted in 2014 (L. Pretorius, email communication, 2019, November 8). One of these issues entailed discrimination against black women and girls with disabilities.

The response was that the WPRPD indicates that a minimum of 50% of affirmative action economic opportunities targeting persons with disabilities, should be allocated to women with disabilities, and a minimum of 7% (concomitant to the disability demographics in the country) of affirmative action opportunities targeting women in general, should be allocated to women with disabilities. The Amended Employment Equity Act (2013) prioritises black persons with disabilities over their white counterparts to acknowledge the slow pace of transformation since the original act was passed (UN Committee on the Rights of Persons with Disabilities, 2018).

The researcher surmised that the matter of quotas appears to be a global issue as organisations are obligated to employ disadvantaged individuals, including persons with disabilities. The concepts of hiring quotas/equity targets, coercion, “window-dressing”, preferential treatment and charitable employment, as contained in the literature, may have an adverse impact on certain employers’ perspectives. In Chapter 4, the mechanisms to increase the employment rate of persons with disabilities are presented.

2.4.2.4 Recruitment and selection practices

The literature contained studies that investigated forms of bias towards persons with disabilities that materialised in recruitment and selection practices. However, discrimination against them, per se, resorts under stereotyped perceptions as conveyed in the next section. Research into recruitment and selection practices incorporated the willingness or not to locate and employ persons with disabilities.

a Developed countries

According to Braddock and Bachelder (1994), large companies in the USA were the most likely to employ persons with disabilities, but viewed them as the least likely source of labour. Also, qualified persons with disabilities were not considered for managerial or professional positions and therefore not recruited for these levels, including potential internal candidates.

Waterhouse, Kimberley, Jonas, and Glover (2010) found that employers were uneasy about discrimination laws and occupational health and safety, as well as disconcerted by the “secrecy” surrounding disability and restraints on its open discussion. Many employers who claimed to be positive about hiring persons with disabilities, admitted that they might be reluctant to employ them, being unsure whether their company could accommodate them.

Recruitment and selection practices that served as obstacles to the employment of persons with disabilities, were investigated from different perspectives by Blanck and Marti (1997), Bricout and Bentley (2000), Dalgin and Bellini (2008), Domzal et al. (2008), Duff, Ferguson, and Gilmore (2007), Egan (2001), Hayes and Macan (1997), Luecking (2008), Millington, Leierer, and Abadie (2000) and Ren et al. (2008). Their findings reflected that in many instances HR officers did not know how or where to find suitable persons with disabilities; those who possessed the required qualifications and skills received positive hiring

recommendations; self-presentation during an interview affected employability ratings; persons with disabilities who could demonstrate motivation, productivity and self-reliance received higher employability ratings, as did an optimal match between the needs of the applicant and those of the employer; females with disabilities received higher ratings than males with disabilities; and persons with psychiatric disabilities and those with severe physical disabilities received lower employability ratings than those with other disabilities. A lack of knowledge of accommodation and assistive technology was a recurrent theme but there were mixed findings about the extent to which disclosure of accommodation needs and disclosure of an invisible disability affected hiring decisions. The utilisation of a targeted selection strategy was suggested to overcome many of the obstacles mentioned. McMahon et al. (2008) uncovered hiring allegations under Title 1 of the Americans with Disabilities Act and detected that employers in educational services; public administration; transportation; warehousing; professional, scientific and technical services; agriculture, forestry, fishing, and hunting; and construction were more likely to be named in hiring allegations, while employers in finance, insurance, information, manufacturing, real estate, utilities, retail trade and wholesale trade, were more likely to be named in non-hiring allegations.

According to Egan (2001), the employer should look beyond the wheelchair, prosthesis and physical or emotional disability. In a large-scale survey, the Australian Human Rights Commission (2016) found that, according to employers, a diverse pool of candidates was not necessarily available and placement agents incorrectly matched persons with disabilities to a job.

b Developing countries

In Ethiopia, with an unemployment rate of around 24 per cent, persons with disabilities face an even greater rate on unemployment, including those who are university graduates. Causes include discrimination, poor job hunting skills and methods. In order to improve their chances of being recruited for jobs, an ILO-

Irish Aid Programme - Promoting Rights and Opportunities for People with Disabilities in Employment through Legislation (PROPEL) assisted the Ethiopian Centre for Disability and Development (ECDD) with developing a training programme which included writing a curriculum vitae, communication skills, assertiveness/confidence building, searching and applying for jobs online using appropriate websites, access to job vacancies via social media platforms and short internships. Furthermore, workshops were held to train and sensitise human resources professionals on disability matters and instruments on disability, such as the CRPD (2006) (ILO, 2015).

In a South African study, Gida and Ortlepp (2007) established that, despite receiving attention, recruitment and selection practices lacked a structured approach. Meeting numerical targets was sought but recruitment was not part of an integrated disability strategy. Also, equity targets were set but their achievement was not monitored. Some employers reported that persons with disabilities were encouraged to apply in advertisements for vacancies.

In South Africa, the TAG (2017) provides guidelines to employers in respect of the recruitment and selection procedures relating to persons with disabilities, as described in Chapter 4.

Closer inspection by researchers of the actual recruitment and selection techniques applied would have been informative, as well as whether or not consistency prevailed across all position levels, including the media used and the approaches adopted to interviewing, through to the appointment of new employees. The researcher surmised that central to recruitment and hiring recommendations were the employability ratings awarded to persons with disabilities. This research incorporated recruitment and selection methods, being the crucial hurdle to cross for a person with a disability in the pursuit of employment. The study included the perceptions of employers in respect of disclosure of an invisible disability during the interview, requests for accommodation and/or assistive technology, targets for the employment of

persons with disabilities, penalties for non-compliance with such targets, the active recruitment of persons with disabilities, their responses to job advertisements in the media and the use of a form of targeted selection and employability ratings. As opposed to a long list of causes of exclusion to address, a main contribution of this study entailed that latent constructs, which appear to underlie the exclusion of persons with physical disabilities from employment, were derived from exploratory factor analysis (EFA) and structural equation modelling (SEM). These were associated with particular variables to measure employers' receptivity to hiring persons with physical disabilities and could serve as a point of departure for the implementation of interventions and innovative policies to promote the employment of persons with disabilities.

2.4.2.5 Knowledge about persons with disabilities

The exclusion of persons with disabilities from employment is ascribed to deficient knowledge about these individuals, according to the vast majority of researchers in the field. In particular, a lack of awareness of, exposure to and contact with them culminates in misconceptions about their abilities in general and work capacity in particular. Consequently, barriers are created that exclude persons with disabilities from employment.

a Developed countries

Levy (1993) detected that clear response patterns were reflected by the measure of contact of employers with persons with disabilities. Attitudes were significantly more favourable among those employers who had previously had experience with employees with disabilities, especially positive experiences, and those who had hired persons with disabilities over a span of a few years.

In their model, Stone and Colella (1996) proposed that individuals with substantial prior contact with persons with disabilities (e.g. family, friends or

colleagues) may react more positively to them, since contact situations allow appreciation of them as individuals rather than members of a stereotyped group.

A voluminous body of scholarship specifically addressed the lack of knowledge (awareness of, exposure to, contact with and prior experience) as a cause of negative attitudes towards persons with disabilities. This phenomenon culminated in barriers to hiring, managing, accommodating and retaining persons with disabilities, as reported by the following researchers based on their respective findings: Ali, Schur, and Blanck (2011), Balcazar (2000), Barr and Bracchitta (2008), Brennan et al. (2003), Brostrand (2006), Bruyère, Erickson, and VanLooy (2004), Chan et al. (2010), Copeland, Chan, Bezyak, and Fraser (2010), Daruwalla and Darcy (2005), Dixon et al. (2003), Goreczny, Bender, Caruso, and Feinstein (2011), Hernandez, Balcazar, and Keys (2004), Hyland and Rutigliano (2013), Kaye et al. (2011), Krahé and Altwasser (2006), Scott-Parker and Zadek (2001) and Waterhouse et al. (2010).

In a large-scale survey, the Australian Human Rights Commission (2016), found that employers reported deficient knowledge and confidence on their part about employing and working with persons with disabilities, as well as a lack of training in diversity and inclusion. This limited exposure and experience also applied to co-workers. Another perspective, also related to knowledge about persons with disabilities, encompasses a past adverse experience with an employee with a disability, which could culminate in a negative attitude towards others with disabilities. In this regard, Luecking (2008) stated that discrimination manifests when an employer is disappointed with the performance of an employee with a disability and vows to never again hire someone from that category or group again.

b Developing countries

In a meeting to present the business case for employing persons with disabilities held between PROPEL (Promoting Rights and Opportunities for People with

Disabilities in Employment through Legislation) and the Zambian Federation of Employers, it emerged that employers had little awareness of, inter alia, inaccessible workplaces, negative attitudes, how inclusion can contribute to company performance and where to find skilled persons with disabilities. One outcome was the establishment of a network of Zambian employers to support each other and facilitate the hiring of persons with disabilities (ILO, 2015).

In a South African study, Gida and Ortlepp (2007) inferred that extensive ignorance, fear and stereotypes resulted in unfair discrimination against persons with disabilities, in society and in the workplace. Also, in South African research, Maja et al. (2011) ascertained that some organisations had limited awareness of disability, especially exposure to psychiatric disabilities. They reported that banks in general had a lack of knowledge about the types, degrees and definitions of disability. Human resources managers were often consulted about how their company defines disability. They concluded that this lack of knowledge and understanding of disability and the role of the various professionals who could be consulted, contributed to barriers pertaining to the recruitment, selection and employment of persons with disabilities. From the perspective of service providers, Colerez and Geist (1987) opined that although the rehabilitation profession does not provide immunity against prejudicial attitudes, it creates an understanding of the employee with a disability.

The body of scholarship analysed by the researcher rarely specified the types of disabilities investigated, but it can be inferred that able-bodied persons, including employers, were not well-versed in disability, particularly by type and associated implications. The symbol of a wheelchair has become synonymous with disability, which naturally constricts the complexity and multifariousness of the phenomenon. The lack of knowledge about disability is fertile ground for nurturing stereotyped perceptions. The researcher has worked with persons with disabilities for two decades and supports the notion that ease and understanding emanate from exposure to persons with disabilities. The researcher ascertained whether employers felt unfamiliar with managing the

needs of persons with disabilities. This research also covered past negative experiences and the nature thereof, as relayed by formal private sector employers. As opposed to a long list of causes of exclusion to address, a main contribution of this study entailed that latent constructs, which appear to underlie the exclusion of persons with physical disabilities from employment, were derived from exploratory factor analysis (EFA) and structural equation modelling (SEM). These were associated with particular variables to measure employers' receptivity to hiring persons with physical disabilities and could serve as a point of departure for the implementation of interventions and innovative policies to promote the employment of persons with disabilities.

2.4.2.6 Type of disability

The rationale for choosing physical disability as the focus of this study emanates from the researcher's exposure to physical disability. There are many types of disabilities, broadly classified as mobility/physical, spinal cord (SCI), traumatic brain/head injuries (TBI), vision, hearing, cognitive/learning, psychological and invisible (Disabled World, 2019). Sensory impairments count as physical disabilities (Hurling, 2008). In the context of this research, physical disabilities included sensory impairments, mobility and/or physical impairments of the upper or lower limbs, manual dexterity limitations and orthopaedic injuries. In several cases, other disabilities were acquired simultaneously (e.g. both a fractured vertebra and a brain injury). Every category of disability would likely warrant research in its own right.

Naturally, the type of disability dictates the nature of accommodation and/or assistive technology, if any, required to equip a person with a disability to perform the essential job functions and deliver satisfactory work performance (SAHRC, 2017). An argument could also be made for the type of environment in which certain disabilities cannot be accommodated, for example, underground mining operations where medical fitness is a prerequisite and a so-called "Red Ticket" is issued (RSA, 1996b).

a Developed countries

According to Livneh (1982), factors such as level of functionality, visibility and severity associated with a disability could contribute to specific negative attitudes. In the same vein, Stone and Colella (1996), in their model, posited that the nature of the disability is a significant determinant of the manner in which a person with a disability is perceived and treated in a social and organisational setting, since the extent to which disabilities evoke negative reactions from others varies. Psychosocial and sensory impairments are apparently viewed more negatively than physical ones, owing to different images and stereotypes.

Brennan et al. (2003), Bricout and Bentley (2000), Brostrand (2006), Dalgin and Bellini (2008), Gouvier, Sytsma-Jordan, and Mayville (2003), Hernandez et al. (2000), Ren et al. (2008) and Unger (2002) determined in their respective studies that employers' expectations in respect of employability, ease of accommodation and performance expectations and ratings, were more favourable towards persons with physical disabilities as opposed to those with mental, psychological, psychiatric, behavioural or cognitive disabilities. Also, in certain roles such as frontline customer liaison, entertainment or modelling, scarring, especially facial disfigurement, could serve as a barrier to employment. Kaplan (n.d.) described this as a disability of appearance only, shaped by stigma and cultural meaning.

b Developing countries

Types of disabilities are likely universal. In an analysis of, inter alia, employment rates, Mizunoya and Mitra (2012) analysed data on 15 developing countries using the World Health Survey. In essence, they determined that the employment rate of persons with disabilities was consistently lower than that of able-bodied persons in 13 of the 15 countries and those with multiple disabilities showed even lower employment rates than those with single disabilities. Furthermore, persons with severe disabilities revealed a low level of employment (RSA, 2015c).

It might have been more edifying if researchers had dissected both the specific type of disability and its severity in further detail. For example, in an office environment, would an employer be equally reluctant to employ a person with a prosthetic lower limb compared with an individual in a wheelchair or a person with an amputated non-dominant arm? The researcher inferred that a physical disability is perceived as visible and predictable by an employer, allowing for measurable performance outcomes and accommodation, while psychiatric and psychosocial categories would be regarded as invisible, unpredictable and challenging to manage. However, the severity of the disability, whether physical or psychosocial, acts as a further barrier to employment. To make a contribution to knowledge, formal private sector employers were questioned about their willingness to employ persons with physical, neurological, sensory and psychosocial/psychiatric disabilities by type and in which positions. Latent constructs that appear to underlie the exclusion of persons with physical disabilities from employment were derived from exploratory factor analysis (EFA) and structural equation modelling (SEM). These were associated with particular variables to measure employers' receptivity to hiring persons with physical disabilities and could serve as a point of departure for the implementation of interventions and innovative policies to promote the employment of persons with disabilities.

2.4.2.7 Work capacity

A large body of the literature was dedicated to several concerns raised by employers in respect of the perceived work capabilities of persons with disabilities, albeit not necessarily by type of disability, which resulted in reservations about hiring them. The researcher broadly categorised these concerns as relating to competence (skills and experience levels), job performance (productivity, reliability, flexibility, multi-tasking and endurance), absenteeism (related to health issues), dependence on assistance from others, socialisation (interpersonal skills, acceptance by others, co-workers' impressions, tensions, morale and perceptions of "special treatment"),

supervisors' apprehension (amount of supervision required, performance assessment and legal liability in the case of dismissal), job retention, promotability and staff turnover.

At this juncture, it seemed prudent to distinguish between the concepts of disability and medical incapacity. As explained by Hurling (2008, p. 141):

The disability of an employee does not amount to his or her medical incapacity. If these two concepts meant the same, the Labour Relations Act (LRA) would not have distinguished between medical incapacity as a valid ground for dismissal and disability as a prohibited reason for dismissal. Employers must appreciate this distinction in terms of the LRA and accordingly not treat an employee or job applicant with a disability as being medically incapacitated, unless it is established that the person is also incapacitated.

a Developed countries

In their model, Stone and Colella (1996) suggested that the nature and specifications of a job, the type of disability involved and other attributes of the person such as gender, influence the perception of the person's competency. When tasks are interdependent and/or group reward systems apply, able-bodied individuals may fear that a co-worker with a disability will have an adverse impact on their own success, while a change in their work schedules will cause them inconvenience.

Based on a literature review, Lengnick-Hall et al. (2005) derived certain job-related assumptions that serve as barriers to the employment of persons with disabilities, namely that they are subjected to stereotypes; lack the necessary knowledge, skills, abilities and other characteristics; and maintain lower productivity; while employers fear litigation when dismissing them; expect negative co-worker reactions; are concerned about customer reactions; and incentives to hire persons with disabilities are either inadequate or unknown.

In their respective research endeavours, Brennan et al. (2003), Bruyère et al. (2004), Chan et al. (2010), Dixon et al. (2003), Domzal et al. (2008), Fraser et al. (2010), Goldstone (2002), Graffam et al. (2002), Green and Brooke (2001), Greenwood and Johnson (1987), Hernandez et al. (2008), Kaye et al. (2011), the Kessler Foundation (2010), Louvet (2007), Peck and Kirkbride (2001), Ren et al. (2008) and Waterhouse et al. (2010) ascertained employers' concerns about the work capacity of persons with disabilities. In essence, these misgivings entailed unsatisfactory levels of productivity; different performance/productivity standards; lack of skills and experience (incompetence); impact on team relations and performance outcomes; time-consuming dependence on co-workers and supervisors for support or assistance; additional supervisory time; supervisors being unsure about how to apply discipline; absenteeism; reduced staff morale; the need for flexitime and/or modified shifts; inflexibility in rotating between tasks or jobs; the inability to multi-task; inadequate tolerance for work pressure; increased staff turnover; difficulty to dismiss a poor performer; limited promotional potential; employers' fear of the costs and insufficient knowledge of accommodation/assistive devices to enhance job performance; challenges locating qualified persons with disabilities; and increased time spent on training staff in disability matters.

b Developing countries

In their South African study, Gida and Ortlepp (2007) reported that, apart from attitudes towards persons with disabilities about their work capacity, finding those with the right skills for the job was a frequently mentioned challenge.

Also in South Africa, Maja et al. (2011) found that formal qualifications were often required for positions, while organisations experienced difficulty with sourcing suitably qualified and skilled persons with disabilities. Part of the problem of unskilled persons with disabilities probably stems from the educational system which hampers opportunities for children with disabilities. However, even in the case of a formal qualification, their opportunity to work can be further curbed by

the type of disability and the inherent nature of the work. Certain environments are not suitable for individuals with mobility disabilities. Productivity also emerged as a hindrance where able-bodied employees had to carry the workload of a person with a disability.

Van Niekerk and Van der Merwe (2013) stated that persons with disabilities still experienced problems in certain public sector departments with receiving training and being promoted, owing to the prejudice of their superiors about their potential to succeed in more senior positions. They also experienced discrimination and opined that staff members should be sensitised to issues of disability. The training and development opportunities that were offered either included low-level courses or contributed little to their career advancement.

The type of disability, the nature of work and work capacity seem to be inter-related. In respect of the work capacity of persons with disabilities, several concerns on the part of employers emerged, the most profound of which included negative perceptions about their competence (skills and experience) and job performance (productivity, endurance, coping with pressure, mobility, dependence on colleagues/supervisors, multi-tasking and absenteeism) which resulted in relegating persons with disabilities to low-level, routine jobs. These concerns seem to be universal. In the case of this research, the issues relating to the perceived work capacity of persons with disabilities, physical ones in particular, were investigated, since this is a fundamental cause of their challenge to secure employment. The study covered, inter alia, employers' perceptions of disability by type, the skills and experience of persons with disabilities, their productivity, their performance standards, their dependence on assistance from colleagues, discomfort experienced by co-workers, team work-based incentives and their likelihood of development and promotion. The strategies designed to enhance the skills and employability of persons with disabilities are presented in Chapter 4. As opposed to a long list of causes of exclusion to address, a main contribution of this study entailed that latent constructs, which appear to underlie the exclusion of persons with physical

disabilities from employment, were derived from exploratory factor analysis (EFA) and structural equation modelling (SEM). These were associated with particular variables to measure employers' receptivity to hiring persons with physical disabilities and could serve as a point of departure for the implementation of interventions and innovative policies to promote the employment of persons with disabilities.

2.4.2.8 Nature of work

The nature of work or job design was a recurrent theme in the literature as a reason advanced by certain employers for their reluctance to employ persons with disabilities. However, in many instances in the literature, there was no differentiation between the type of disability versus the nature of work. Closely linked to the nature of work, was job restructuring, the cost effectiveness of redesigning an existing role, the allocation of a person with a particular disability to a specific type of job and flexible work schedules.

a Developed countries

Greenwood and Johnson (1987) found that employers seemed evasive about identifying specific jobs for persons with disabilities but tended to associate them with lower-level, unskilled jobs. In their model, Stone and Colella (1996) adopted the stance that the technology used by an organisation could determine the extent to which persons with disabilities are considered qualified for their jobs, since technology determines the nature of the work processes, the machinery used and the skills set required to execute the work. Some jobs, such as those on an assembly-line, would be less amenable to restructuring.

Graffam, Shinkfield, Smith, and Polzin (2002), in an Australian study, discerned that job matching was considered to be a key feature of placing a person with a disability in a particular position, but such should also be coupled with the conditions and needs of the workplace. Lengnik-Hall et al. (2005) inferred that

information technology and the internet would be ideal domains in which persons with disabilities could work without restrictions or prejudice. Hernandez et al. (2008) conducted a study that involved employers in healthcare, hospitality and retail in the USA and found that persons with disabilities were mostly employed in entry-level and semi-skilled roles, such as clerical work, food service and laundry service. Few held professional jobs. Louvet (2007) found that owing to subjective stereotyping, persons with disabilities were considered to be a poor fit for “male” jobs and more competent to execute “female” jobs. This categorisation ties in with the finding of Fraser et al. (2010) that persons with disabilities were regarded as lacking in physical strength.

In their research, Blanck, Adya, Myhill, Samant, and Chen (2007), Dixon et al. (2003), Goldstone (2002), Gouvier et al. (2003), Kaye et al. (2011), Luecking (2008), Robert and Harlan (2006) and Schriener (2001), all reported research findings that suggested the existence of a relationship between the nature of work and employers’ willingness or unwillingness to employ persons with disabilities, mainly centred around their perceived competence to do the job.

Wilton (2006) referred to non-standard work arrangements as a tendency to reduce labour costs, which included part-time work and temporary/contract jobs which typically offered lower wages, fewer if any benefits, little job security and less cover by labour laws, also known as precarious work. Wilton (2006) opined that precarious work could be an option for those persons with disabilities who are unable to work on a full-time basis. Schur (2003) indicated that health problems could compel persons with disabilities to accept contingent or part-time work.

b Developing countries

Mizunoya and Mitra (2012) posited that in developing countries, that are agrarian in nature, the majority of jobs would exist in the primary sector, particularly

agriculture and forestry, which require heavy physical labour and therefore exclude persons with physical disabilities.

In South Africa, Gida and Ortlepp (2007) found that, although the majority of the organisations in their study indicated that persons with disabilities occupied positions across the different levels in the organisation, most of them held lower-level jobs, especially administrative positions. There was a tendency to identify certain types of positions exclusively for persons with disabilities, for example, that of call centre agent. However, this could exacerbate exclusion of persons with disabilities, hamper their integration into the organisation, stunt their career growth and deprive other employees of the opportunity to better understand and include persons with disabilities.

Maja et al. (2011) investigated two private sector organisations, based in Durban. In the context of nature of work, they established that, irrespective of qualifications, the type of disability versus the nature of work can curtail the work opportunities of persons with disabilities where reasonable accommodation cannot be implemented, as would be the case with, inter alia, hazardous environments.

It is the researcher's contention that a generic approach to a discussion of the nature of work perhaps disregards the actual job content versus the type of disability. A job applicant with a disability would need to be assessed on merit so as to determine applicable job matching, job or workplace redesign, flexible work schedules and other accommodation, if any. The researcher surmised that cases exist where persons with disabilities were being allocated to entry-level, low-skilled, semi-skilled or "female" roles. It also emerged that certain types of job content might be inflexible and not conducive to restructuring. In some instances, persons with disabilities were segregated by space or concealed by room dividers. On a positive note, information technology and the internet create new opportunities for persons with disabilities where their disability could be managed. In the context of formal private sector employers, this research

should make a contribution to knowledge by covering aspects such as the nature of the employers' work processes and their perspectives of job restructuring/redesign, flexible hours/work schedules, the allocation of persons with disabilities to particular jobs and the initial temporary/contract or permanent employment of persons with disabilities. The levels and nature of jobs currently held by persons with disabilities employed by the organisation, were also determined.

2.4.2.9 Accommodation and assistive technology

Research into the forms of accommodation and assistive technology required, depending on the nature of the disability, was abundant. However, it emerged that knowledge about the types of accommodation and assistive devices was inadequate, while the perceived costs caused resistance and negativity on the part of employers. In the context of this research, the types of physical disabilities that were involved encompassed orthopaedic injuries (musculo-skeletal fractures, amputations or severe soft tissue injuries); neurological injuries (nerve damage, brachial plexus lesions, hemiplegia, hemiparesis or paraplegia); sensory injuries (partial or total loss of a sense, particularly vision or hearing); and myological injuries (muscle damage).

a Reasonable accommodation

The CRPD defines reasonable accommodation as follows:

Reasonable accommodation refers to the necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms (CRPD, 2006, p. 4).

i Developed countries

Blanck and Marti (1997) described accommodation as a modification to the workplace or environment that enables a qualified person with a disability to perform the essential job functions.

Conversely, an employee is not qualified if he or she cannot perform the job with or without reasonable accommodation, and such should not impose undue hardship on the employer, such as significant difficulty with or expense of the accommodation. The ADA (1990) introduced the concept of reasonable accommodation (Blanck & Marti, 1997). According to Brennan et al. (2003), reasonable accommodation calls for increased physical accessibility and societal accessibility for persons with disabilities and could involve the creation of features such as ramps or parking spaces.

ii Developing countries

Zambia is discarding the system of separate special schools for persons with disabilities in favour of an inclusive approach to mainstream education and vocational training, in line with the CRPD. This strategy involves incorporating diverse learning and cultural needs of learners as well as implementing accommodation and an appropriate curriculum. PROPEL (Promoting Rights and Opportunities for People with Disabilities in Employment through Legislation) has facilitated improved access to skills training through the removal of barriers and improving ease of use of premises, physical accessibility of buildings and structures and using appropriate tools and training materials. Across all participating colleges, the numbers of learners with disabilities have improved (ILO, 2015).

As cited in Mitra (2008), the Code of Good Practice of the South African Employment Equity Act refers to reasonable accommodation as expected from employers. Also in the South African context, Van Niekerk and Van der Merwe

(2013) cited Thomas (2006), who found that disability is the aspect of employment equity with the least progress, since many structures and buildings remain inaccessible to persons with disabilities. As such, the relevant building regulations should be enforced.

According to the QuadPara Association of South Africa (QASA) (2009), weak legislation, coupled with weak enforcement, is the main reason for many buildings still being inaccessible. Municipalities should ensure that all building plans submitted reflect accessible buildings. However, there is no obligation on owners to make existing buildings accessible.

The concepts of reasonable accommodation and undue hardship appear to be open to interpretation by the employer or property owner as to what constitutes “reasonable” and presumably one of the causes of inaction. Also, not all employers own the premises from which they operate, restricting their ability to make structural modifications.

b Types of accommodation and assistive technology

Forms of accommodation required to facilitate the employment of persons with disabilities include, inter alia, workplace design and modification of the environment to enable accessibility, such as ramps, elevators, wide doorways, adjustable heights of shelves and desks, location of the job, cloakrooms, modular/adjustable furniture, designated parking bays and so forth. Job-related forms of accommodation include job restructuring, job support and flexible hours of work, schedules and deadlines (SAHRC, 2017).

Assistive technology refers to, inter alia, devices or special equipment required to enable the execution of work by a person with a disability in accordance with his or her type of disability, needs, preferences, capabilities and comfort. Assistive devices can range from low-tech products (wrist supports, alternative keyboards, automatic page turners, etc.) to high-tech devices (voice recognition

software, keyboard emulators, voice adapted dialling, environmental control systems, etc.), as reported by Driscoll et al. (2001). Assistive devices for wheelchair users include swivel seat cushions, adjustable desk heights and incline platform lifts (SAHRC, 2017).

Schneider (2006) referred to advocating for universal design in the USA that would promote accessibility to assistive technology, healthcare systems and community activities, which encompasses the design of products and environments to be usable to the greatest extent possible, by all people (with or without impairments) without the need for adaptation or specialised design.

In response to the CRPD, the WPRPD (2015), approved by Cabinet on 9 December 2015, addresses the need for universal design access standards in respect of transportation, assistive technology and the built environment (RSA, 2015d), while the TAG (RSA, 2017) explains the implementation of reasonable accommodation. These frameworks are presented in Chapter 4.

c Cost of accommodation and assistive technology

In the organisational context, costs are always of paramount concern. It emerged from the literature that the perceived cost of accommodation and assistive technology, required to facilitate the employment of persons with disabilities, translates into fear on the part of employers which then serves as a barrier to their inclusion in the workplace.

i Developed countries

Bricout and Bentley (2000) discerned that an employer's limited knowledge of and concern with the cost of accommodation contribute to negative perceptions about hiring persons with disabilities. Hernandez, Keys, and Balcazar (2000) also found that private sector representatives were apprehensive about the cost of workplace modifications.

Numerous researchers such as Dixon et al. (2003), Domzal et al. (2008), Kaye, Jans, and Jones (2011), Langton and Ramseur (2001), Lengnick-Hall et al. (2005), Peck and Kirkbride (2001), Schur et al. (2005) and Younes (2001), all found in their respective studies that the perceived cost of accommodation and assistive technology created a major concern, enough to deter employers from hiring persons with disabilities.

Gold, Oire, Fabian, and Wewiorski (2012) also indicated that the findings of their study pointed towards accommodation costs as a deterrent to hiring persons with disabilities and opined that employers should adopt a strategic approach to retaining and increasing the productivity of qualified employees with disabilities. Kaye et al. (2011) suggested a centralised fund instead of line managers' budgets to pay for accommodation.

ii Developing countries

In a South African survey, Gida and Ortlepp (2007) found that some organisations have progressed beyond the point of arguing about the cost to provide reasonable accommodation for persons with disabilities. While many have ramps and elevators, in some cases the latter are too narrow for wheelchair users and, in certain instances, organisations even choose to employ persons with paraplegia since they do not require special equipment to perform their jobs.

The South African Baseline Country Report (2013) addressed Article 20 (Personal mobility) of the CRPD (2006). Assistive devices form part of the public sector health service package offered free of charge to qualifying members. However, severe capacity constraints in the assessment and issuing of assistive devices and a lack of state funding are problematic. In the case of the private sector, employers are obligated to provide reasonable accommodation, including assistive technology, at their expense. The TAG (RSA, 2017) devotes a chapter to reasonable accommodation to assist employers with the implementation of such. These measures and related policies are presented in Chapter 4. Smit

(2001) reported that the cost of accommodation and/or assistive technology is usually quite low and often only minor adjustments to equipment are needed, such as the height of a desk or a machine.

Rehabilitation professionals would determine the nature of accommodation and/or assistive devices required for the specific type of disability of a person. The researcher accepts that a willingness to absorb the cost of accommodation would depend on considerations such as size and type of organisation, available resources, return on investment and suchlike. In this study, the aspects of accommodation and assistive technology were addressed by the researcher including the impact of the perceived cost on an employer's attitude towards employing a person with a disability. A contribution to knowledge of this study could be to ascertain whether South African employers are knowledgeable about and/or sceptical of the cost of accommodation. As opposed to a long list of causes of exclusion to address, a main contribution of this study entailed that latent constructs, which appear to underlie the exclusion of persons with physical disabilities from employment, were derived from exploratory factor analysis (EFA) and structural equation modelling (SEM). These were associated with particular variables to measure employers' receptivity to hiring persons with physical disabilities and could serve as a point of departure for the implementation of interventions and innovative policies to promote the employment of persons with disabilities. One of the latent constructs that emerged entailed the willingness to implement accommodation and/or assistive technology.

2.4.2.10 Safety risks

The literature intimated that, in some cases, employers perceived the employment of a person with a disability as a safety risk, be it a threat to other employees, company property or machinery, or the like, which would then inhibit receptivity to their inclusion in the workplace. The inference can be made that

the nature of the disability plays a role in conjunction with the job description and the location of the workstation.

a Developed countries

According to Blanck and Marti (1997), persons with visible, hidden or perceived disabilities are sometimes labelled as unqualified for a job when assumed to pose a safety or health threat to themselves or others in the workplace. The duration of the risk and the nature and probability of potential harm could implicate underlying and unfounded bias about hidden or perceived impairments of a genetic, psychiatric, addictive or contagious nature. Title I of the ADA prohibits disability-related pre-employment inquiries and medical tests. Medical test results obtained following a conditional offer of employment may not serve to exclude a qualified individual from a job unless the exclusion can be demonstrated to be a business necessity, job related and not amenable to reasonable accommodation.

Wooten and James (2005) found that in some cases employers' safety concerns were used to justify discriminatory practices against workers with disabilities. In their study, Waterhouse et al. (2010) discerned that safety became an issue when both managers and work groups were hesitant about how to respond to unexpected behaviour and how to ensure workplace safety. Furthermore, depression and mental health issues of employees were reported as particularly difficult for employers to manage. Kaye et al. (2011) detected that safety tied in with a fear of liability in the event of an accident or injury in the workplace. In a similar vein, Hernandez et al. (2007) identified prejudice towards persons with disabilities as a basis for fear of workplace accidents.

b Developing countries

There seems to be a paucity of research in South Africa in respect of safety concerns in the workplace pertaining to persons with disabilities.

In their study on the underutilisation of persons with disabilities in the construction sector, Smallwood and Haupt (2008) found that a contingent of respondents considered persons with disabilities to be a threat to the health and safety of their co-workers, while there was consensus that persons with physical disabilities would be precluded from on-site supervision and working at elevated heights.

To enhance safety in the workplace, employers are permitted to conduct medical testing. As per the TAG (RSA, 2017, pp. 33-34), such testing includes the following:

- Full or partial physical exam by a doctor or other medical professional
- Vision tests conducted and analysed by an ophthalmologist or an optometrist
- Blood, urine, and breath tests to check for alcohol use, urine, saliva, and hair analyses to detect disease or genetic markers
- Blood pressure and cholesterol screening
- Nerve conduction tests
- Range of motion tests that measure muscle strength and function
- Pulmonary function tests
- Psychological tests designed to measure a mental disorder or impairment
- Diagnostic procedures such as x-rays, CAT scans, and MRIs (Magnetic Resonance Images).

Once a conditional offer is made, the employer may require a medical exam or ask disability-related questions. If the job offer is subsequently withdrawn because of medical information, the employer must show that the reason for doing so was relevant and appropriate to the kind of work for which the applicant or employee is being tested. Health screening and safety procedures, in general, should apply to all persons regardless of whether they have a disability (RSA, 2017, p. 34).

According to the Occupational Health and Safety Act (1993), the employer is obligated to provide and maintain a work environment that is safe for all employees. Evacuation procedures should cater for any specific or additional measures to ensure safe evacuation of an employee with a disability from a building or work site during emergencies (Pathways, 2016).

Research about safety concerns in the workplace should be related to the nature of the disability. From the perspective of physical disability, the implications of an amputated non-dominant upper limb versus a mobility restriction would likely differ. To make a contribution to knowledge, this research incorporated the aspect of safety and potential occupational hazards as appraised by formal private sector employers from different sectors, in order to ascertain whether these could act as deterrents from hiring persons with disabilities.

2.4.2.11 Financial incentives

Several authors have cited inadequate financial incentives for employers to hire persons with disabilities as a barrier to their employment.

a Developed countries

In the USA, there are several programmes to assist employers in their endeavours to employ persons with disabilities. However, Brennan et al. (2003) found that employers seemed uninformed about resources in the form of state and national agencies in the USA such as Welfare to Work, School-to-Work training programs, One-Stop Career Centers, Florida Division of Vocational Rehabilitation and the Department of Veterans Affairs.

In their research, Burkhauser and Stapleton (2004), Domzal et al. (2008), Fraser et al. (2010), Hunt and Hunt (2004), Kaye et al. (2011), McFarlin, Song, and Sonntag (1991) and Waterhouse et al. (2010) identified financial incentives that

would encourage employers to hire persons with disabilities such as, inter alia, tax credits and subsidies from the government in respect of salaries paid to employees with disabilities and/or for the cost of accommodation required by them.

b Developing countries

In South Africa, envisaged strategies and policies to promote the employment of persons with disabilities were addressed in the Integrated National Disability Strategy (1997), which resulted in numerous pieces of new and amended legislation. However, financial incentives and/or subsidies for private sector employers have not been promulgated.

According to L. Pretorius (Email communication, August 25, 2015), there are no financial incentives or subsidies for the employment of persons with disabilities. Incentives were phased out with the passing of the Employment Equity Act of 1998, which places an obligation on designated employers to accommodate persons with disabilities. Some Sector Education and Training Authorities (SETAs), such as the Services SETA, have in the past provided a “top-up” reasonable accommodation subsidy when persons with disabilities were enrolled in their learnerships, but this was not applied consistently. The South African Revenue Service (SARS) provides for a disability-related expenses tax rebate for small and medium enterprises. The only other incentive is related to the new BBBEE scorecard and its interface with employment of persons with disabilities. There are also no government financial incentives or subsidies for private sector employers in respect of building modifications to facilitate wheelchair accessibility. South African legislation is in the process of a coordinated and extensive review across all statutes for alignment with the obligations contained in the CRPD (2006), ratified by South Africa in 2007. In a subsequent email communication (November 8, 2019), L. Pretorius indicated that the development of national disability legislation has commenced under the leadership of the South African Law Reform Commission (SALRC).

The WPRPD (RSA, 2015d) proposes that incentives and reward systems must be devised to promote accessible built environments in accordance with universal design and regulated norms and standards. These incentives must therefore aim to transform the orientation of built environment professionals towards designing barrier-free spaces and facilities.

The researcher anticipates that the envisaged new legislation will stimulate extensive research into its impact on the lives and employment of persons with disabilities in South Africa. However, according to L. Pretorius (Email communication, March 22, 2017), new or amended legislation in respect of disability, could take several years to materialise but the process has commenced (Email communication, November 8, 2019). To make a contribution to knowledge, this researcher canvassed the opinions of formal private sector employers in respect of incentives that could encourage the employment of persons with disabilities.

2.4.2.12 Image of the organisation

The perceived impact of employing persons with disabilities on the company's image would relate to stereotyped attitudes. A company's image would incorporate the impression made by its products, management and employees as created in the eyes of the beholders such as customers and the public.

Kalb (2016) described corporate image as the image of the creator of products and determines how others perceive the leader of the organisation or the latter in itself. This image can either enable the achievement of goals or block attainment.

a Developed countries

According to Lengnick-Hall et al. (2005), customers might fear that employees with disabilities would not produce products of high quality or be unable to deliver

the same level of service as their able-bodied peers. Also, customers could harbour fear about contagious conditions, feelings of awkwardness, discomfort and ambivalence or feel guilty about how they should interact with staff members with disabilities. In the same vein, Kaye et al. (2011) suggested that even if employers are themselves comfortable around workers with disabilities, they may have qualms that their customers or clients are not.

b Developing countries

The role of the image of the organisation was alluded to in the study of Smit (2012) as described in section 2.4.1.2.

There was a paucity of research on this topic overall. Concerns about company image in the eyes of customers, might be countered by perceptions of social responsibility. Moreover, from a commercial perspective, persons with disabilities are also consumers and thus customers. Image, per se, would appear to be a secondary reason for not employing persons with disabilities. In this study, the researcher addressed concerns about customer reactions when interacting with an employee with a visible disability, with the sample of employers.

2.4.2.13 Legal sanctions

In the context of employing persons with disabilities, a fear of legal recourse, on the part of employers, emerged from the literature.

a Developed countries

As reported by Balcazar (2000), Domzal et al. (2008), Fraser et al. (2010), Hernandez et al. (2008), McMahon et al. (2008) and Waterhouse et al. (2010), the main sources of legal sanctions confronting employers were identified as discrimination against persons with disabilities in respect of their hiring, job

retention and career advancement. In some cases, employers felt disempowered to discipline or dismiss an employee with a disability who delivered unsatisfactory work performance. Kaye et al. (2011) found that one of the main reasons for employers being unwilling to employ persons with disabilities, was a fear of being unable to discipline or dismiss such a worker owing to a potential lawsuit.

Chan, McMahon, Cheing, Rosenthal, and Bezyak (2005) analysed 35 763 allegations of discrimination filed by persons with disabilities under the employment provisions of the Americans with Disabilities Act (ADA). To a lesser or greater extent, the ten most frequent allegations identified encompassed the following: discharge; intimidation; harassment; failure to provide reasonable accommodation; inequitable terms and conditions; failure or refusal to hire; discipline; constructive discharge; promotion; and inequitable wages.

In the USA, the ADA does not offer protection to workers with disabilities who are unable to perform their jobs adequately, thus they can be dismissed as long as the reason is unrelated to their disability (Maja et al., 2011).

b Developing countries

Maja et al. (2011) reported that, according to the International Labour Organization, many employers assumed that persons with disabilities had limited work capacity, caused problems in the workplace and dismissal was difficult because of their legal rights. The South African Employment Equity Act of 1998 stipulates that an employer can terminate employment if the employee is not capable of fulfilling the job requirements and reasonable accommodation cannot be made.

In South Africa, aggrieved persons with disabilities have recourse to the Commission for Conciliation, Mediation and Arbitration (CCMA), Equality Courts and the Labour Court.

The main functions of the CCMA are to conciliate workplace disputes; arbitrate certain categories of disputes that remain unresolved after conciliation; facilitate workplace forums and statutory councils; and compile and publish information and statistics about CCMA activities (RSA, 2020a)

Equality courts are specialised courts designated to adjudicate matters relating to unfair discrimination, hate speech and harassment. They facilitate access to justice for marginalised and vulnerable citizens to uphold their rights (RSA, 2020b).

The Labour Court has the same status as a High Court and adjudicates matters arising from labour disputes (RSA, 2020c). However, according to Cole (2013), thus far, courts in South Africa have had few cases to adjudicate involving disability as a non-discrimination issue.

In this research, formal private sector employers were questioned about whether their organisation had been charged before the CCMA by a person with a disability and, if so, the reason and outcome of the matter.

2.4.2.14 Cost of health insurance

The literature revealed that, in some instances, employers were concerned about increased costs in, inter alia, health insurance and compensation funds when employing persons with disabilities, which could serve as a deterrent to hiring them.

a Developed countries

As early as 1987, Greenwood and Johnson suggested that employers were becoming increasingly aware of the impact of different disabilities on workers' compensation. Braddock and Bachelder (1994) referred to both workers' compensation and healthcare benefits as a national concern in the USA,

especially paying benefits to injured persons who are able to work. Many healthcare plans exclude certain types of coverage that are important to workers with disabilities, while they encounter barriers as a result of pre-existing medical conditions for which insurers could reject or restrict coverage. In the same vein, Domzal et al. (2008), Egan (2001), Kaye et al. (2011) and Ren, Paetzold, and Colella (2008) found that employers had misgivings about increased costs in health insurance, worker's compensation and liability insurance, when employing persons with disabilities. Burkhauser and Stapleton (2004) postulated that one potential explanation of the decreasing employment rate of persons with disabilities could be the increasing cost of healthcare, since they have higher than average costs in this regard.

b Developing countries

Persons with disabilities earn lower levels of income, even if they are employed, than their able-bodied peers, which results in them utilising public health services as opposed to private doctors. Furthermore, they utilise health services more frequently, suggesting likely higher health care costs, yet the majority are not covered by a medical aid scheme (Graham et al., 2014).

In respect of Articles 25 (Health) and 26 (Habilitation and rehabilitation) of the CRPD (2006), the South African Baseline Country Report (2013) reflected on compliance, progress and obstacles in achieving the objectives. The National Health Act of 2003, regulates health services nationwide in the case of both public and private health service providers. Subsection 2(c) (iv) identifies persons with disabilities as a designated group whose constitutional right of access to healthcare services should be protected and promoted. Furthermore, section 24(2) (e) of the Medical Schemes Act of 1998 prohibits unfair discrimination on the basis of disability. However, there are challenges with inter-sectoral funding of services which will be prioritised for implementation over the next few years.

The WPRPD (2015), contains, inter alia, recommendations on a major review of all legislation affecting persons with disabilities, including access to affordable health care services; social assistance that is aligned with the actual cost of disability and related expenses; a review of insurance benefits to remove all discriminatory practices on the basis of disability; and the expansion of benefits for persons with disabilities and their families (RSA, 2015d).

The researcher inferred that efforts are focused on improving access to health care for persons with disabilities, which could serve to allay employers' concerns about absenteeism and late-coming owing to health issues.

2.4.2.15 Trade union involvement

In a few instances in the literature reference was made to the role of trade unions in influencing inclusion of persons with disabilities in the workplace.

a Developed countries

Schur et al. (2005) surmised that, while unions and employers are covered by the ADA in the USA, collective bargaining agreements incorporated systems and rules that could complicate workplace accommodation. Many unions and employers have included exceptions in their agreements to address the accommodation of employees and job applicants with disabilities. According to Schur (2005), the extent to which unions had formulated policies to assist persons with disabilities to obtain jobs and remain employed has not been researched. Fraser et al. (2010) referred to a respondent's comment that implied some difficulty with the union in accepting employees with disabilities.

b Developing countries

In Ethiopia, under the auspices of PROPEL (Promoting Rights and Opportunities for People with Disabilities in Employment through Legislation), negative views

about disability have changed markedly. The Constitution of the Confederation of Ethiopian Trade Unions has been revised to incorporate the rights of persons with disabilities as well as guidance on disability matters in collective bargaining (ILO, 2015).

Brand (2015) recommended that South African trade unions should encourage their members to expose discriminatory practices and assist them with preparing for such disputes.

The researcher was unable to locate any South African studies that addressed the role of trade unions in the employment of persons with disabilities and associated factors. However, a question was posed to the sample of employers in respect of whether their trade union agreement contained a clause dealing specifically with persons with disabilities.

2.5 STEREOTYPED PERCEPTIONS

The vast majority of studies that addressed the topic of persons with disabilities, whether in the context of employment or in general, categorised stereotyped perceptions as the dominant cause of negative attitudes towards these individuals. The terminology used also included labelling, stigmatisation, bias, discrimination, prejudice and the like. It was inferred that stereotyped perceptions would be the most challenging to modify or eradicate, being entrenched and deep-rooted. Ostensibly, numerous assumptions, judgements and emotional reactions are engendered on the part of able-bodied persons when exposed to persons with disabilities, amplified by the type and severity of the condition. It became clear that these stereotyped perceptions would permeate the workplace and could have a detrimental impact on the working life of a person with a disability, from entry through to development, retention and promotion.

2.5.1 General forms of stereotyped perceptions

Livneh (1982) adopted a candid approach in his analysis of the origins of negative attitudes towards persons with disabilities and described these as socio-cultural conditioning (emphasis on appearance, health, athletic prowess, productivity, achievement, welfare, delineation of the sick role and stigma); childhood influences (rearing practices that emphasise health and normality, as well as anxiety-laden premises of the causes of certain illnesses); psychodynamic mechanisms (expected mourning of loss of a body part or function, fascination-avoidance or repulsion at the sight of a person with a disability, spreading attributes from one condition to another, attributing a personal-moral accountability of the cause to the individual, fear that association with the person with a disability implies psychological maladjustment and could lead to ostracism, feelings of guilt for being able-bodied, the perception of disability as a punishment for sin or an evil act, the person with a disability being perceived as dangerous and fear of imminent punishment by association); anxiety-provoking situations (uncertain social outcomes when interacting with a person with a disability could cause withdrawal or strain and fear when confronted with strange or mutilated bodies due to a lack of preparedness); and aesthetic aversion (feelings of repulsion and discomfort at the sight of a visible disability such as amputations, body deformities, cerebral palsy and skin disorders). Other causes of negative attitudes towards persons with disabilities include fear of losing one's physical integrity, fear of contamination or inheritance or death and assigning marginal or inferior status to the person with a disability.

Stone and Colella (1996) divided stereotypes ascribed to persons with disabilities into six categories that entailed interpersonal competence (e.g. shy, quiet, aloof and distant), task competence (e.g. helpless, dependent and non-competitive), concern for others (e.g. non-egotistical and benevolent), integrity (e.g. saint-like and honest), emotional adjustment (e.g., bitter, unhappy, nervous and hypersensitive) and strength (e.g. submissive). Since many of these traits could be linked to job performance, stereotypes could have an abject impact on

expectations about the ability of a person with a disability to execute a particular job.

Robert and Harlan (2006) reported that bureaucratic organisations tended to resist legislation that promoted equality associated with disability since they aimed to maintain the status quo. Despite the ADA in the USA, marginalisation, fictionalisation and harassment still occur in the workplace. Persons with disabilities are devalued and exposed to a hostile work environment with discrimination, job segregation and unequal career advancement opportunities.

Stereotyped perceptions reportedly constitute the dominant cause of negative attitudes harboured towards persons with disabilities. By implication, these stereotyped perceptions culminate in barriers to employment. This state of affairs was echoed by the research findings of Ali et al. (2011), Blanck and Marti (1997), Braddock and Bachelder (1994), Dixon et al. (2003), Fiedler and Simpson (1987), Graffam et al. (2002), Hunt and Hunt (2004), the Kessler Foundation (2010), Ren et al. (2008) and Schriener (2001). As a result of these perceptions, it emerged that labels were assigned to persons with disabilities, depending on the type of disability, such as mentally retarded, emotionally disturbed, learning disabled and so forth. Furthermore, fake assumptions were presumably made about traits that matched the disability. They are viewed as objects of pity, demanding “special treatment” or less of a person and therefore to be avoided or ignored. Able-bodied individuals reported feelings of discomfort, fear of the unknown and reduced job performance expectations with respect to persons with disabilities. They were associated with lower levels of ambition and productivity and higher staff turnover and absenteeism. Chronic, progressive and incurable disabilities evoked different reactions, while psychiatric and contagious ones engendered fear on the part of able-bodied persons. These outcomes amount to discrimination, both in the social arena and in the workplace, despite related legislation.

A notion presented by Stone and Colella (1996) was that of “master status” where a person with a disability is categorised accordingly – for example, “the blind lawyer”. Specifically in respect of women, Conejo (2013) investigated organisations and networks for women with disabilities and identified common goals that were aimed at eradicating violence, sexual abuse and disabling barriers in society.

In a somewhat different vein, Kaye et al. (2011) encountered a number of specific responses within the realm of stereotypes, where respondents referred to the “hassle”, “paperwork” or “trouble and effort” related to employing persons with disabilities, such as having to “spend time on issues they have never had to address before”, “deal with government bureaucracy”, or “be bothered researching accommodations”. It was perceived as cumbersome to hire a person with a disability because of government regulations and laws enforced on employers in the USA.

In the realm of the media, stereotyped perceptions were also formed. Stadler (2006), in an overview of media texts, technology, policies and production methods, posited that the media could foster understanding, tolerance and respect for diversity, but also portrayed disability unfavourably which reinforced negative attitudes.

2.5.2 Stereotyped perceptions in Africa

Mostert (2016) purported that the widespread social stigma attached to persons with disabilities presents a major threat to the effective implementation of the CRPD (2006) in Africa. Stigma leads to undesirable labelling of a person with a disability and, in turn, discrimination, social distance and curbed human rights in all spheres of life. According to WHO, approximately 40 per cent of Africans have disabilities, including children, who are mostly excluded from schools, while the literacy rate for adults is estimated at three percent. Adults with disabilities are excluded from employment, political and community life, while being more likely

to be abused than able-bodied citizens. The causes of stigma are many, including a lack of information on disability and cultural beliefs and values. In some African countries, disability is perceived to pacify evil or to be a gift. However, more prevalent are negative perceptions where persons with disabilities are excluded from being chief, or killed or abandoned as children, or viewed as a curse or punishment for immoral parental behaviour. In Africa, disability and poverty go hand in hand, resulting in a lack of resources to procure medical care, rehabilitation and devices. Finally, the unemployment rate of Africans with disabilities is double that of their able-bodied peers. In developing countries, it is estimated that around 80 per cent of persons with disabilities are unemployed owing to stigma and perceptions that they are less competent and also unproductive.

In a discussion of South African legislation, Ngwena (2004) asserted that addressing disability discrimination requires a principle of equality that is based on respect for human dignity and that treats disability as a normal range of human diversity rather than an aberration.

As discussed in Chapter 4, numerous pieces of South African legislation address discrimination against people in general, including persons with disabilities. However, all disability-related South African legislation is currently under review in order to be aligned with the CRPD (2006) (L. Pretorius, email communication, November 8, 2019).

Stereotyped perceptions of persons with disabilities appear to persist with far-reaching implications in both the employment and social spheres. This research surveyed the frame of reference of employers in the South African formal private sector in respect of numerous dimensions relating to hiring persons with disabilities. Any stereotyped perceptions pertaining to the employment of persons with disabilities, were to be inferred from their responses to the open-ended questions, if apparent. A main contribution of this study entailed that latent constructs, which appear to underlie the exclusion of persons with

physical disabilities from employment, were derived from exploratory factor analysis (EFA) and structural equation modelling (SEM). These were associated with particular variables to measure employers' receptivity to hiring persons with physical disabilities and could serve as a point of departure for the implementation of interventions and innovative policies to promote the employment of persons with disabilities.

2.6 OTHER FACTORS

Other factors, not attributable to negative attitudes, also exacerbate the plight of persons with disabilities to secure employment.

2.6.1 Labour market conditions

It was a logical deduction that during economic recessions, when fewer jobs are available, persons with disabilities would be placed at an increased disadvantage. World-wide, the employment rates of persons with disabilities fall considerably below that of able-bodied persons. The type of disability also influences access to the labour market, with persons with psychosocial and intellectual impairments being subjected to the lowest employment rates (WHO, 2011).

Fogg, Harrington, and McMahon (2010) utilised the US Current Population Survey (CPS) that contained employment data for the Great Recession that occurred from December 2007 to September 2009. This survey reflected six categories that defined the reasons for unemployment which entailed the following:

- (1) Job losers, who have been laid-off temporarily but likely to return to the labour market within six months.
- (2) Permanent job losers, who have lost their jobs and have no prospect of being recalled.

- (3) Temporary employment that ended.
- (4) Job leavers, who resigned but continue to search for employment.
- (5) Re-entrants to the labour market after having not participated for a period.
- (6) New entrants to the labour market with no work experience.

The difference in the unemployment rates of persons with and without disabilities were brought about mostly by re-entrants and permanent job losers, exacerbated by lower levels of education. Furthermore, extended periods of unemployment hamper an eventual return to the labour market (Fogg et al., 2010).

Jackson, Furnham, and Willen (2000) alluded to the overall state of the UK job market which affected each sector differently. Changes in the labour market were occurring with flexible contracts being preferred to traditional ones. This resulted in shorter periods being worked for each employer, likely leaving fewer persons with disabilities in permanent employment. Kaye (2010) analysed data from the US Current Population Survey (CPS) and discerned that, as a result of the 2007 to 2009 recession, workers with disabilities were left highly vulnerable to loss of employment. Those affected most were the ones with mobility impairment, younger adults, incumbents of medium-skill jobs, men and workers with disabilities without a tertiary education. The substantial increase in social security disability awards played a part in workers with disabilities leaving the workforce rather than to seek new employment. Schur (2003) speculated that when jobs are scarce, employer discrimination tends to be more prevalent. Persons with disabilities would likely accept contingent and part-time jobs when labour markets tighten.

Data on the employment of persons with disabilities remain scant, especially in low and middle-income countries, while a large portion of them work in the unregulated informal economy, including self-employment (WHO, 2011)

In South Africa, with an unemployment rate hovering around 29 per cent (Statistics South Africa, 2019), persons with disabilities would be especially adversely affected in their quest for employment.

2.6.2 Transportation

One can accept that transportation to a place of work would prove challenging to a less affluent person with a physical disability in the absence of reliable public transportation, including inaccessible vehicles. Special transport services could include shared vans with lifts that transport passengers for a fixed fare or accessible taxis (WHO, 2011).

Langton and Ramseur (2001) identified accessible transportation for persons with disabilities as an employment need, while Dixon et al. (2003) found that the lack of transport was a barrier to employment. Hernandez et al. (2007) regarded a lack of transportation as a barrier to employment since this prevented individuals with disabilities from seeking and retaining employment. Their study showed that many did not own vehicles and relied on family or friends for transportation, especially if they resided or worked in areas without public transportation. Ostensibly, public transit workers were indifferent to the needs of persons with disabilities. Furthermore, lifts on public buses were unreliable and para-transit was time-consuming owing to all the stops made along routes.

Accessible transport, which is also affordable, for persons with disabilities, remains a profound barrier. Public transport is not always accessible to wheelchair users. Services are often assigned to specific cities and are accessible for some persons with disabilities while those in rural areas rely on taxis. Private companies who provide transport to persons with disabilities include Pro Mobility, Travel With René, QASA and Charly's Care. QASA also rents out accessible or adapted vehicles with hand controls to persons with mobility impairments who can drive. The City of Johannesburg's Metrobus Service offers a subsidised transport service for persons with disabilities on

designated routes. These buses are equipped with a ramp and a hydraulic chair lift. Passengers pay a monthly fee. The Dial-A-Ride service, which operates in Cape Town and Durban, transports persons with disabilities by bus from their homes to work, school and other facilities. This service is intended to be temporary until public transport becomes universally accessible. The Rea Vaya Bus Service transports persons with disabilities between Soweto and Johannesburg, while GO GEORGE is a public bus service which caters for passengers with a variety of special needs, including wheelchair users. Intercity, suburban and cross-country trains have space for wheelchairs but many stations are still inaccessible in this respect. A Disabled Person's Railcard ensures a discount on rail tickets. The Gautrain and its stations and buses are accessible to those with mobility, visual and hearing impairments. Rikkies Taxis and Uber Assist cater for wheelchair users (Disability Info SA, 2020).

In the South African Baseline Country Report (2013), in response to Article 9 (Accessibility) of the CRPD (2006), it was acknowledged that public transportation in South Africa poses considerable challenges, which have a significant impact on affordable mobility for persons with disabilities, particularly in poor communities. In addressing the list of issues emanating from the Baseline Country Report (2013), South Africa reported to the United Nations Committee on the Rights of Persons with Disabilities in August 2018 that Cabinet had approved the National Transport Master Plan 2050 which addresses universal access of public transport (UN Committee on the Rights of Persons with Disabilities, 2018).

The researcher deduced that a lack of suitable transportation remains an obstacle to persons with disabilities, especially those with mobility challenges, more so when they do not reside in cities. In her study, Merrill (2012) relayed that one respondent had found Dial-a-Ride to be oversubscribed and another divulged having fallen after being pushed while attempting to board a train. In this study, employed persons with physical disabilities were questioned about their means of transportation to work.

2.6.3 Support services

In the extant literature, insufficient support services to assist employers with the employment of persons with disabilities, emerged as a barrier. There seems to be a need for service providers, such as rehabilitation experts and specialised employment agencies, to play a more prominent role in enhancing the employment opportunities of persons with disabilities.

Gilbride, Mitus, Coughlin, and Scott (2007) acknowledged that assisting persons with disabilities to find and retain suitable jobs remains a plight. In the USA, billions of dollars have been spent on placement assistance for persons with disabilities. Public and private agencies, as well as thousands of not-for-profit community rehabilitation programmes, provide a range of services to persons with disabilities in order to secure employment. Luecking (2008) postulated that even when employers have shared a willingness to employ persons with disabilities, they were often unsure about methods to recruit them, appropriate accommodation and how to elicit assistance, such as vocational rehabilitation professionals, to manage disability in the workplace. One form of assistance entails the Business Leadership Network, an employer-led peer-to-peer group that aims to promote the employment of persons with disabilities. In the same vein, Van Lieshout (2001) promoted the concept of a business leadership network, where the hiring of persons with disabilities is advanced through a coalition of employers, service providers and persons with disabilities, taking cognisance of the needs and interests of all parties involved.

In the case of South Africa, there appears to be a shortage of rehabilitation practitioners, which is even more pronounced in the public sector, as reflected in the South African Baseline Country Report (2013). These practitioners include occupational therapists, physiotherapists, orthotists, prosthetists and psychologists.

In the context of business networks, the South African Employers for Disability (SAE4D) was formed, comprising a number of corporate organisations (SAE4D, 2020). Furthermore, there are several employment agencies that specialise in the recruitment and placement of persons with disabilities in South Africa.

To make a contribution to knowledge, in this study, the researcher gleaned the perspectives of a few disability placement agencies and occupational therapists in respect of the plight of persons with disabilities to secure employment, as reported in Chapter 6.

2.6.4 Lack of response to advertised positions

One possible reason for the low employment rate of persons with disabilities could be that they fail to respond to advertised positions in the media.

Goldstone (2002) found that employers who had not employed persons with disabilities reported the main reason to be that nobody with a disability had applied for employment. Another barrier to employment emerged as a lack of self-efficacy in job-seeking skills. According to Barlow, Hergenrather, Rhodes, and Turner (2008), among persons with disabilities, the level of self-efficacy correlated with job-seeking skills, which, in turn, led to successful job-seeking behaviour. Job-seeking requires skills to competitively pursue employment and include writing, reading, basic mathematics, how and where to search for a job, completing an employment application, preparing a résumé, interviewee skills, social skills and job market familiarity. The level of self-efficacy was found to be the best predictor of securing employment and had a positive correlation with re-employment.

In the context of persons with disabilities not responding to job advertisements, one explanation can be derived from the findings of Graham et al. (2014) who investigated the link between poverty and disability, taking cognisance of the National Income Dynamics Study Waves 1 and 2 (2008 and 2011). The majority

of persons with disabilities indicated that they were discouraged job-seekers, with only 10 per cent indicating that they had family responsibilities. Thus, labour market despondency, rather than health-related issues, could be the main reason for them leaving the labour market.

One would expect an advertisement for a job vacancy, whether placed by the employer or an employment agent, to specifically invite persons with disabilities to apply. To make a contribution to knowledge, this research addressed the strategies adopted by South African formal private sector employers in their recruitment drives as well as their perceptions about whether or not persons with disabilities responded to job advertisements in the media.

2.7 EXCLUSION OF PERSONS WITH PHYSICAL DISABILITIES FROM EMPLOYMENT: AN OVERVIEW

As described in Chapter 2, numerous barriers exist, both in organisations and in the external environment, that hinder the inclusion of persons with disabilities in the workplace. As discussed in Chapter 4, over the years, a copious amount of laws, policies, conventions and guidelines have emerged, both at a global level and in South Africa, with the aim to advance the right of persons with disabilities to work. Organisations have become increasingly obligated to employ and, where necessary, accommodate persons with disabilities. However, as indicated in the 19th Annual Report of the CEE, the percentage of persons with disabilities employed by designated employers in South Africa, remains below the targeted two per cent of staff complement (RSA, 2019). As far back as 1997, the Integrated National Disability Strategy described the factors that culminated in the high level of unemployment amongst persons with disabilities, which included, inter alia, inaccessible transport and work environments; a lack of training and information; and discrimination (RSA, 1997a).

Igei (2018) analysed data from the 2002 to 2015 General Household Surveys, conducted by Statistics South Africa, to estimate the impact of disability on

employment outcomes during that period. It was found that the effects of disability did not bode well for employment. Persons with disabilities were less likely to be employed and more likely to leave the labour market, if unemployed, and thus not seek work. The situation had not yet improved after the South African government ratified the CRPD in 2007. Igei (2017) also analysed data from the 2011 South African Census (Statistics South Africa, 2014). In essence, it was found that the difference in levels of poverty between younger groups with and without disabilities, was exacerbated in the presence of disability, necessitating public policies to support young people with disabilities in respect of education and employment.

The CRPD (2006) was adopted by member states of the United Nations and contains 50 articles relating to the human right of persons with disabilities to participate in society on an equal basis as able-bodied persons, including in the economic sphere. South Africa signed the Convention and its Optional Protocol on 30 March 2007, later also ratified on 30 November 2007 (UN Enable, 2007). The CRPD raises awareness and understanding, while articulating concepts pertaining to disability with the intention to assuage the exclusion of persons with disabilities from society (Cole, 2013). Article 27 obligates member state governments to promote equal access to employment for persons with disabilities and prohibits discrimination against this group (CRPD, 2006). Progress made in terms of implementing the CRPD was described in the South African Baseline Country Report (2013) and, in August 2018, South Africa appeared before the UN Committee on the Rights of Persons with Disabilities to respond to a list of issues, as referred to earlier in this chapter. South Africa reports under the simplified reporting process which requires periodic reports. The next Periodic Country Report is due in June 2022 (L. Pretorius, email communication, November 8, 2019). In the context of employment, the denial of reasonable accommodation is classified as a form of discrimination, as covered in the Employment Equity Act (1998) and its amendment (2013), as well as the TAG (2017). The WPRPD (2015) aims to ensure that a minimum of 50 per cent of economic opportunities that target persons with disabilities be allocated to

women with disabilities. Furthermore, national and provincial government departments report annually on progress made with their implementation of the JobACCESS Strategic Framework for the Recruitment, Appointment and Retention of Persons with Disabilities Implementation Plan. From April 2018, accountable officers must report on their adherence to disability equity targets in their annual performance agreements, while appropriate disciplinary action for non-compliance is under consideration (UN Committee on the Rights of Persons with Disabilities, 2018).

The National Skills Development Strategy III (2011 - 2013), stipulated, as one of its many goals, access to career services designed to meet the needs of a diverse range of citizens, including persons with disabilities. During the period 2011 to 2013, several projects were launched that catered for persons with disabilities, such as Conquering Disability for Skills Development, skills programmes suited to amputees, internships, learnerships, wholesale and retail workplace skills, etc. (RSA, 2013b).

According to Cole (2013), the implementation and enforcement of legislation has been slow despite excellent support, likely owing to the inadequate definition of disability; performance management not being connected to policy stipulations; the absence of separate legislation on disability in South Africa; and a lack of funding and commitment.

According to the Research Brief on Disability and Equality in South Africa (SAHRC, n.d.), access to the labour market is dependent on education. Unemployment levels of persons with disabilities remain high and the employment target of two per cent of staff complement to comprise this group has still not been met. The WPRPD (2015) sets this target at seven per cent for 2030 (RSA, 2015d). The SAHRC (n.d.) advocated for more aggressive targeting of the private sector in raising awareness of the right to work of persons with disabilities; the collection of disaggregated data to support research on, inter alia, the employment of persons with disabilities; and more rapid transformation

of the labour market. The proposed Employment Equity Amendment Bill (2020) aims to set sector-specific numerical targets (SA News, 2020).

Persons with disabilities remain under-represented and under-utilised in the labour market and should be equipped with the required skills and support to prove their suitability for a position despite their disability (TAG, 2017).

The implications of disability-related legislation and policies for employers, especially once fully aligned with the CRPD, will be significant. They will be placed under increased pressure to reach equity targets in respect of the employment of persons with disabilities; to implement accommodation where necessary; to provide training to their employees on disability management and matters; to support government initiatives that promote the employment of persons with disabilities; and to be held accountable for contraventions of legislation and policies through sanctions.

2.8 CHAPTER SUMMARY

In this chapter, the causes of exclusion of persons with disabilities from the workplace were conceptualised as ascertained from the extant literature on the topic. These causes constitute barriers to employment which have their origin in negative attitudes and other factors, and appear to be universal when cognisance is taken of research findings from around the globe. The researcher derived two categories of negative attitudes, namely sources in the organisational context and stereotyped perceptions. Other factors, not attributable to negative attitudes, were also identified. A number of selected studies relating to the perspectives of persons with disabilities in their pursuit of employment, was discussed and evaluated in detail. Dimensions relating to the organisational context were divulged under the headings of developed and developing countries. The social model of disability was described, being applicable to the orientation of the study. The chapter concluded with an

overview of current progress in respect of the inclusion of persons with physical disabilities in the open labour market.

The next chapter focuses on the challenges encountered by persons with disabilities to secure employment.

CHAPTER 3

CHALLENGES ENCOUNTERED BY PERSONS WITH DISABILITIES TO SECURE EMPLOYMENT

In this chapter, the perspectives of persons with disabilities are conceptualised pertaining to the challenges they face to secure employment, as derived from the extant literature. Disability advocacy, which is inextricable from the notion and experience of disability, is discussed.

3.1 INTRODUCTION

The perspectives and experiences of persons with physical disabilities, as ascertained, formed part of this study in accordance with the motto of Disabled People South Africa (DPSA) “Nothing about us without us” (DPSA, n.d.)

The rationale for choosing physical disability as the focus of this study emanates from the researcher’s exposure to physical disability. In the context of this research, physical disabilities included sensory impairments, mobility and/or physical impairments of the upper or lower limbs, orthopaedic injuries and manual dexterity limitations which included neurological injuries that resulted in physical disability (e.g. brachial plexus lesions). In several cases, other disabilities were acquired simultaneously (e.g. both a fractured vertebra and a brain injury). Every category of disability would likely warrant research in its own right.

The exclusion of persons with disabilities, physical disabilities in particular, from employment was investigated in line with the research aims of the study. The literature review was organised in accordance with themes that were derived from research which specifically addressed the employment situation of persons with disabilities. According to Mouton (2001), a literature review can be arranged around a theme or a key construct in the study and this approach is prevalent in exploratory quantitative and qualitative research endeavours.

The nature of negative attitudes harboured towards persons with disabilities in the workplace was described in Chapter 2. Livneh (1982) alluded to behaviour on the part of persons with disabilities such as dependence, the pursuit of secondary gain, fearfulness, insecurity, inferiority, expecting to be treated in depreciating ways and silence or lack of interest in participating in public relations campaigns or self-help groups that address their concerns and combat stereotypic and negative attitudes. Fine and Asch (1988) suggested that certain common assumptions were associated with disability, namely that the disability and the person were synonymous; the impairment, per se, caused the problems experienced by the person; the person's sense of self-worth and reference groups were based on the disability; and disability equates to needing help and social support.

Prior to addressing the perspectives of persons with disabilities in respect of the world of work, it seemed apt to consider how they perceived themselves in general. Weinberg and Williams (1978) suggested that persons with disabilities ostensibly maintained more positive attitudes than was assumed by able-bodied individuals. Their disability was considered quite important but not their primary characteristic. To them, their disability was a fact of life or an inconvenience or a cause of frustration. Some perceived their disability as a challenge to overcome but it enabled sensitivity to and patience with others, facilitated interaction with people from all walks of life and cultivated a greater appreciation of life. Furthermore, as the person accepted the disability, his or her values changed and other aims were then pursued.

Marsay (2014) focused on persons with disabilities who had succeeded in the world of work. They indicated that they had changed their own attitude towards their disability and redefined it as a strength. Furthermore, when they did not see themselves as disabled, others did not either.

The researcher contends that the disability experience can surely only be investigated by including the perspectives of persons who live with disability and their subjective evidence of processing and coping with the consequences.

3.2 EXPERIENCES AND PERSPECTIVES OF PERSONS WITH DISABILITIES

In the case of this research, the literature review covered numerous studies and therefore only a selection of these were subjected to detailed discussion and critical evaluation. Studies older than 2009 were not included in this particular exercise. Apart from research studies, the literature review also contains authors' academic contributions and reviews of research executed. Against the backdrop of the topic and research aims of this study, the researcher selected literature that contained similar studies in order to present and compare their results; to relate and link this study to the body of scholarship; to substantiate the research problem and research questions; and to organise the findings into categories (Creswell & Creswell, 2018). Furthermore, the literature review enabled the researcher to identify voids that could be addressed in this study so as to contribute to the current state of research. Although frowned upon by the disability community, the term persons with disabilities will be abbreviated as PWD where necessary.

3.2.1 Presentation and evaluation of selected studies that involved the perspectives and/or experiences of persons with disabilities

3.2.1.1 Studies in developed countries

These studies are depicted in Table 3.1

Table 3.1

The perspectives and/or experiences of persons with disabilities in developed countries

Source & Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Hammel, Magazi, Heinemann, Gray, Stark, Kisala, Carlozzi, Tulskey, Garcia, and Hahn (2015)</p> <p>To describe the impact of environmental factors on the participation of PWD in, inter alia, economic life</p>	<p>Qualitative analyses of secondary data from 36 focus groups consisting of a purposive sample of 201 persons with diverse disabilities involved in five research projects in eight states in the USA. Eight major categories of environments were identified which impacted on the participation of PWDs in society, namely built; natural (e.g. weather); transportation; assistive technology; information and technology access; social support and societal attitudes, systems and policies; and economic environment. Environments can also intersect causing a cumulative effect and multiple barriers can occur simultaneously.</p>	<p>Relationships were found between environmental features, participation in society and the quality of life of PWDs. The eight environmental categories which emerged could serve as a frame of reference to develop items and rating scales that measure the lived experience of PWDs at the individual, community and societal levels. Attitudes towards PWDs resort under environmental barriers which inhibit societal participation.</p>	<p>The five projects used different questions, not all of them specifically emphasised environmental characteristics and the sample sizes varied. Thus the findings might not be transferable to all PWDs</p>	<p>Environmental factors at different levels were identified that impact on societal participation of PWDs, which allows for the thorough development of assessments of environments as barriers and the effectiveness of related interventions and policies.</p> <p>These results and implications would also apply to South Africa.</p>

Source and Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Shier, Graham, and Jones (2009)</p> <p>To determine mental, physical, physiological and intellectual disabilities which acted as barriers to securing and/or maintaining employment as experienced by persons with different disabilities in Canada</p>	<p>Qualitative research. Semi-structured personal and focus group interviews that enquired about barriers to securing and maintaining employment. Themes were derived from the transcripts.</p> <p>Purposive sample of 56 individuals with a variety of disabilities participating in training programmes in Calgary and Regina, Canada.</p> <p>In searching for employment, barriers were reported as employer discrimination once the disability is known; labelling, where employers viewed persons with disabilities as homogeneous and were concerned about job performance and safety; and negation of a PWD's human capital despite a collection of skills and training.</p> <p>In the case of attempting to maintain employment, the disability resulted in dismissal e.g. for seizures that occurred at work; or having developed an inability to continue to work owing to the disability</p>	<p>Suggestions made by PWDs on how employers could better meet their needs included educating employers on disability matters to allay their fears.</p> <p>Some PWDs modified their own behaviour by diverting attention from the disability or using humour to relieve uncomfortable interactions.</p>	<p>Disability by type was not indicated in this study although it was acknowledged that different disabilities were associated with different barriers. The findings can therefore not be assumed to be transferable to all types of disabilities.</p>	<p>Persons with disabilities still faced discrimination and stigmatisation in the labour market despite public measures of support and protection, implying a need for improved collaboration between employers and legislators as well as a need for employer education on disability issues.</p> <p>These findings and implications could also apply to South Africa.</p>

3.2.1.2 Studies in developing countries

These studies are illustrated in Tables 3.2 and 3.3

Table 3.2

The perspectives and/or experiences of persons with disabilities in Africa

a Uganda

Source and Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Ghore (2016)</p> <p>To explore the different assets that PWDs use and combine to master barriers and create a livelihood in two locations in Uganda in collaboration with Market Based Solutions for the Extreme Poor, ADD International, the Institute of Development Studies and the Coady International Institute.</p>	<p>Qualitative study where the sustainable livelihoods framework was used as tool for analysis which represented five categories of assets, namely human capital, social capital, physical capital, financial capital and natural capital, used for survival.</p> <p>Sample of 10 PWDs drawn from 102 life stories previously collected. (The sample excluded intellectual and psychosocial disabilities).</p> <p>Also 10 persons without disabilities were selected from the same area with similar livelihood activities, for purposes of comparison. Thereafter, 10 focus group discussions occurred to develop insight into the local context, government and market structures, environmental processes and their impact on the livelihoods of PWDs.</p> <p>Type of disability determined livelihood activity chosen e.g. a mobility impairment made transportation of farm produce difficult. Most PWDs were self-employed in retail trading, tailoring clothes, repairing shoes, carpentry and cleaning. Some possessed skills in videography, brewing, mechanics and electronic repairs.</p> <p>Family and friends were found to be essential for the PWDs to start and run an income-generating activity but in some cases PWDs were considered a curse and/or</p>	<p>Marginalisation was exacerbated by the type and severity of a disability. The successful PWD had family or neighbourly support, possessed necessary and suitable skills as well as business acumen, had access to mentorship, advice and financial literacy, focused on the sale of non-perishable products in informal markets and had access to affordable financial sources.</p>	<p>Findings cannot be transferred to PWDs with intellectual or psychosocial disabilities.</p>	<p>In an endeavour to plan market-based solutions, certain factors require thorough consideration, namely type and severity of the disability; available support systems and structures; particular circumstances of the PWD; skills development opportunities; and psychosocial support to enhance the self-image and confidence of the PWD in pursuing opportunities.</p> <p>Improved data on PWDs at district and local level would ensure more effective distribution of resources, while they should be involved in community meetings to become informed of developments.</p> <p>Infrastructure of roads and markets as well as access to banks, land and assistive devices require improvement, while barriers to financial support need solutions.</p> <p>These findings are probably comparable with circumstances in rural areas in South Africa.</p>

	were hidden owing to stigma. PWDs were often excluded from access to resources such as farming implements, mobile telephones, land and accessible, affordable transport. PWDs mostly operated in the informal sector and struggled to secure loans owing to perceived low credit worthiness and seasonal income.			
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b Kenya

Source and Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Koech (2016)</p> <p>To determine the factors that inhibit equal opportunities for persons with physical disabilities in Kenya (This study also addressed other categories unrelated to employment)</p>	<p>Mixed methods triangulation design. Self-designed, structured, self-administered, questionnaire and thematic content analysis followed.</p> <p>Pilot study of 10 and a sample of 354 persons with physical disabilities aged 18 to 60 years, of whom around half were unemployed.</p> <p>Six focus groups consisting of “key informants’ who had dealt with PWD, conducted in-depth interviews with six to eight PWD per group.</p> <p>Univariate and bivariate analyses, with chi-square tests, taking cognisance of gender and nature of the disability.</p> <p>Employed PWDs were involved in business, farming, construction, maintenance and informal employment or self-employment.</p> <p>Only 42 participants, who had completed the questionnaire, participated in the focus group discussions since many withdrew from such discussions.</p> <p>In many cases infrastructure, such as a lack of transportation, ramps and elevators, served as barriers to employment. The focus group discussions identified themes relating to factors that inhibited equal opportunities for PWDs, namely disability-related legislation; recruitment of PWDs especially in respect of educational level, nature of disability and gender; challenges such as personal and physical factors; and a lack of provisions such as environmental adaptations, counselling, etc.</p>	<p>Persons with physical disabilities still faced challenges to access employment services and other facilities, more so in rural areas. They also lacked the education and skills to compete for employment.</p> <p>The PWDs in this study held low status, poorly remunerated employment and those in wheelchairs struggled to access employment. PWDs also faced difficulties with starting businesses and securing suitable premises.</p> <p>It also emerged that PWDs were unaware of provisions made for them in policies and therefore did not utilise them.</p>	<p>The research included only persons with physical disabilities.</p> <p>“Key informants” “picked” those who participated in the discussions; and thus the findings might not be transferable to other types of disabilities</p>	<p>Policies are needed to promote the rights of PWDs. The government should create more awareness of PWDs to encourage their employment and hold sensitisation workshops.</p> <p>PWDs should enjoy exemption from tax. Physical barriers and transport problems still exist.</p> <p>Employers who do not employ PWDs should be penalised.</p> <p>Support groups should facilitate grants for PWDs.</p> <p>In South Africa, all disability-related legislation is being reviewed in order to be aligned with the CRPD.</p>

c Ghana

Source and Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Naami (2015)</p> <p>To develop an understanding of the employment situation of PWDs.</p>	<p>Quantitative design, using a customised questionnaire that contained open and closed-ended questions. Data generated from open-ended questions were recoded for statistical analysis.</p> <p>Sample of 110 persons with disabilities, aged 20 to 60 years, with different disabilities (blind, deaf, physical) who hailed from three regional capitals in Northern Ghana, sourced through disability organisations.</p> <p>Descriptive statistics, Mann-Whitey U, Kruskal-Wallis and chi-square tests were used.</p> <p>Four themes emerged, namely unemployment, employment, income and support. Unemployment: PWDs emphasised discrimination, inadequate capital to enable self-employment and lack of skills as the main causes. Many PWDs are unemployed, the majority of whom were female.</p> <p>Employment: More than half of the respondents were self-employed in marginal, menial and seasonal roles, while others worked for the government. Those who were self-employed also reported inadequate funding for their enterprises, lack of stores, etc. Employed PWD reported a lack of accommodation in the workplace. Some had received in-service training while more than half had not been promoted.</p>	<p>Practically no data on disability in Ghana.</p> <p>Discrimination based on negative perceptions of abilities, was found to be the greatest barrier to employment of PWD.</p> <p>Participants indicated their needs as further education, creating awareness about their abilities, anti-discrimination public education and start-up capital. Others also required assistive technology at work and an accessible environment.</p> <p>Females with disabilities showed higher unemployment rates than males and are more prevalent in marginal jobs such as informal trading with very low income and lack of job security.</p> <p>Apart from the self-employed, the government was the major employer of PWDs, mostly teachers.</p> <p>Exclusion from employment also resulted in PWDs begging on the streets, especially in cases of visual deficits.</p>	<p>Results cannot be generalised to all PWD in Ghana, being based on non-probability sampling.</p>	<p>Ghana has not yet adapted its policies in line with the CRPD. Discrimination against PWDs needs to be countered through public awareness of their capabilities.</p> <p>Funding is needed, specifically for disability-related ventures, such as microfinance credit. The government should follow the provisions of the CRPD and clarify concepts such as reasonable accommodation and the levels of education that are free as per the Persons with Disability Act 715.</p> <p>There is no reason to believe that PWDs in South Africa do not experience similar challenges, as demonstrated in the sections to follow.</p>

Table 3.3 *The perspectives and/or experiences of persons with disabilities in South Africa*

Source and Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Sipuka (2011)</p> <p>To examine how a developmental state can deal with economic disparities faced by black young women with physical disabilities</p>	<p>Qualitative research of the narrative of the experiences of female leaders with disabilities in respect of economic challenges. Unstructured interviews were conducted as well as follow-up interviews to verify the previously obtained information.</p> <p>Convenience sample that consisted of four female leaders with physical disabilities. One had quadriplegia and owned catering, construction and garden service enterprises. One had paraplegia and ran community projects for the disabled. One was a lower limb amputee and had held various positions in the disability sector.</p> <p>One had polio and had held several positions in disability politics.</p> <p>Thematic content analysis of the data was undertaken. The three major themes that emerged entailed: – “We are tired of projects” owing to little gained, multiple legislative and financial hurdles and other “obstructive” factors.</p> <ul style="list-style-type: none"> – “Missed opportunities” which referred to inhibited economic potential owing to family and sociocultural factors. – “No education, no future” owing to poor access to education and training. 	<p>These individuals referred to involvement of persons with disabilities in peripheral informal sector activities such as sewing and selling sweets and vegetables. They lacked skills and business experience, while unable to secure loans owing to a lack of collateral. Transport was also a problem.</p> <p>Disability organisations lacked resources and skills to enhance economic opportunities for PWDs.</p>	<p>Owing to the small sample, the findings would likely not be transferable to all PWDs, especially those in the urban areas.</p>	<p>“Force” the private sector to employ PWDs and allocate points in awarding tenders.</p> <p>PWDs should have the same opportunities as the able-bodied. Implementation of a targeted programme for the literacy of PWDs, especially women BBBEE, should be broadened to fully benefit women with disabilities. Employment equity targets should be enforced with timeframes and “hefty” fines to the private sector. The model for funding needs to be adapted to cater for PWDs. Transportation must be overhauled and universal access is needed at all levels, including schools. Learnerships need to result in employment.</p>

Source and Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Snyman (2009)</p> <p>To establish the requirements for the effective management of employees with physical disabilities in order to promote workplace equality</p>	<p>Quantitative and qualitative study using questionnaires and standardised telephonic interviews.</p> <p>Snowball and purposive sampling was used, respectively.</p> <p>A sample of 44 respondents completed the questionnaire and nine were interviewed. These persons with physical disabilities were in possession of minimum Grade 12 and at least one year's work experience. They hailed from Gauteng and the Western Cape, of whom eight were employed by the government.</p> <p>Overall, the majority of participants reported that their employers participated in disability awareness-raising projects, supported the employment and promotion of PWDs and consulted with them on disability issues. While the majority felt that they received equal opportunities, the extent of such varied and there were still issues around reasonable accommodation, accessibility and attitudes. It transpired that all of the PWDs received some form of reasonable accommodation.</p> <p>Many PWDs indicated that they had been at risk of dismissal when they became disabled.</p>	<p>Equal treatment and job satisfaction seemed dependent on, inter alia, training opportunities, attending seminars, physical accessibility, recognition for good work, disability awareness, access to technology and attitude change. Equality in the workplace was affected by discrimination in the form of negative attitudes and denial of access to the environment and to training. Furthermore, such discrimination had an adverse impact on their health (e.g. stress, depression), emotional state (frustration, anger), self-image (poor self-worth) and relationships (rejection, tension).</p>	<p>Conclusions cannot be generalised since the samples were too small and focused on physical disability only.</p> <p>Also, the findings probably cannot be generalised to the private sector.</p> <p>Technical and language editing were problematic in this study.</p>	<p>Consultation with and inclusion of PWDs in aspects that affect them. Retention strategies to keep PWDs employed, as well as assessing policies and practices to ensure equal treatment and opportunities for PWDs. Awareness and sensitivity programmes about disability issues.</p> <p>Reasonable accommodation and environmental access must be provided.</p> <p>Disability committees to provide PWDs with support and a voice.</p>

Source and Rationale	Method, Sample, Stats & Results	Discussion	Limitations	Implications/Recommendations
<p>Ximba (2016)</p> <p>To explore the perceptions of persons with disabilities with regard to the career advancement challenges faced by them.</p>	<p>Qualitative, phenomenological method, using semi-structured interviews with eight open-ended questions.</p> <p>Purposive and snowball sampling of 15 employees with different disabilities, aged 18 to 65 years, employed for at least six months by selected companies in the retail and financial service sectors in Gauteng, South Africa, who employed 150 or more staff.</p> <p>Themes were derived from the participants' interview responses, using content analysis.</p> <p>The main results indicated that, while some PWDs denied experiencing career advancement challenges, other participants indicated such challenges as slow or no promotional opportunities; inaccessible environment such as telephonic work or verbal training material for a hearing impaired person and physical inaccessibility for a wheelchair user; lack of job options owing to incompetence/reduced concentration; lack of awareness and understanding of disability; employment equity requirements; and lack of post-matric qualifications.</p> <p>In some cases, respondents reported career stagnation and even demotion once their disability had been declared, as well as reduced motivation and aspirations on their part. Again, the aspects of stigma, lack of reasonable accommodation and limited training opportunities came to the fore.</p> <p>Suggestions of PWDs included disability sensitisation, reasonable accommodation, increased responsibilities and developmental opportunities.</p>	<p>The dominant career advancement challenges faced by PWDs emerged as a lack of awareness and understanding of disability; an inaccessible environment; and a lack of promotional opportunities. These issues imply a need for disability sensitisation, reasonable accommodation and increased responsibilities and promotion opportunities.</p>	<p>A sample of 15 cannot represent "all workforce profiles in terms of gender, race, age and occupational levels"</p> <p>The findings might not be transferable or generalisable owing to the small sample from only two sectors.</p>	<p>Implementation of disability sensitisation programmes to create an inclusive environment and provision of reasonable accommodation.</p> <p>Skills training to enhance the career growth opportunities of PWDs.</p>

3.2.1.3 Evaluation of the studies selected for detailed analysis

Certain patterns emerged from the studies presented in section 3.2.1. The sample sizes ranged from four to 354 individuals with disabilities, depending on the research method adopted. Five of these studies encompassed qualitative research techniques, while the researcher of one opted for triangulation, one implemented both a quantitative and a qualitative approach and one chose a purely quantitative method. The major weakness of all of these studies comprised the lack of transferability/generalisability of the outcomes to populations with other types of disabilities than those addressed in the particular research. Nevertheless, recurrent themes emerged from the responses of persons with disabilities, of which the main ones entailed environmental and technological inaccessibility; lack of transportation; lack of accommodation and/or assistive technology; negative attitudes, stigma and discrimination; difficulties executing the particular job content; lack of education, skills and developmental opportunities; and lack of awareness about disability matters.

As was the case in this research, these studies canvassed the perspectives and experiences of persons with disabilities in their pursuit of employment, including self-employment. To compensate for the lack of generalisability/transferability of findings owing to small samples, this researcher endeavoured to obtain a larger sample of persons with disabilities, physical disabilities in particular, but many had other disabilities as well. Both employed and unemployed persons with physical disabilities were included.

In line with the research aims of this study, a mixed methods research strategy was adopted that included both employers and persons with physical disabilities in order to obtain both sides' viewpoints. Thus, a wide range of perspectives of various issues could be gathered for analysis in both this study and in future research, to take the field forward.

3.2.2 Dimensions in the societal context

The World Report on Disability (WHO, 2011) identified environmental barriers that inhibited the participation of persons with disabilities in society. These entail the following:

- (1) Policies related to disability are either inadequate or not enforced.
- (2) Negative attitudes towards persons with disabilities in respect of the disability itself, discrimination by employers and low expectations.
- (3) Lack of services with regard to health care and rehabilitation, coupled with challenges surrounding the quality and sufficiency of such services.
- (4) Inadequate funding to drive plans and policies that endeavour to address disability-related issues.
- (5) Lack of accessibility to the built environment, transportation and information.
- (6) Exclusion of persons with disabilities from decisions that have an impact on them.
- (7) Lack of comparable data on disability curbs insight and corrective action.

The challenges faced by persons with disabilities to secure employment emanate from dimensions associated with the societal context, being interwoven with the employment context. The experiences and perspectives of persons with disabilities, as derived from the extant literature, were categorised according to the themes which emerged.

3.2.2.1 Type of disability

As expounded on in Chapter 2, the type of disability influenced the attitude of able-bodied persons towards a person with a disability. By implication, a negative attitude would become a barrier in social and work contexts. In their study, Hernandez et al. (2007) found that persons with disabilities posited that employers appear to prefer physical disabilities to sensory disabilities, with particular receptivity to those individuals in wheelchairs.

In the context of physical disability, Ari Seirlis, the National Director of the QuadPara Association of South Africa, asserted that persons with physical disabilities have a hierarchy of needs, like the Maslow needs hierarchy, which entails accessible transport and buildings, skills development and employment opportunities, in that particular order (Seirlis & Swartz, 2006).

In line with the research aims, this research focused on persons with physical disabilities, although in several instances, sensory and/or neurological disabilities were also present. One assumes that some experiences of a person with a disability would be unique to the particular disability involved, while certain other encounters could occur to persons with disabilities in general. To make a contribution to knowledge, the researcher aimed to establish the causes of exclusion of persons with physical disabilities from the workplace, taking cognisance of the perspectives of employers on the one hand and those of persons with physical disabilities on the other.

3.2.2.2 Education

Education and training are crucial to securing gainful employment (WHO, 2011). Level of education emerged as a factor in the lives of persons with disabilities, with the lack thereof serving as a barrier to employment. According to Hernandez et al. (2007), persons with disabilities highlighted the need for advanced education to compete successfully and secure gratifying, well-remunerated positions. Many persons with disabilities lacked even a high school diploma, while those who possess a first degree from university were almost on an equal footing with able-bodied persons in securing employment. Furthermore, English proficiency was regarded as crucial in acquiring a suitable job. Similarly, Kim and Williams (2012) found that college students and graduates with physical disabilities realised that an advanced degree would enhance their employment opportunities and some first obtained qualifications before seeking employment.

Baffoe (2013) studied 500 persons with disabilities in Ghana and found that separate or special schools that cater for persons with disabilities continued to exist, yet they seemed to attain diplomas that did not enable entry into mainstream employment.

In a community survey (2016), Statistics South Africa discerned that, although there was an upward trend in persons with disabilities acquiring a higher level of education, the number was still small, despite policies that address their development through education and training.

Low educational levels associated with persons with disabilities is a recurrent theme in the literature. The researcher incorporated education as a variable in this study. The sample of persons with physical disabilities possessed a minimum education of Grade 10 (Std 08).

3.2.2.3 Age

There is a paucity of literature in respect of age as a factor that affects the perspectives of persons with disabilities.

Van Campen and Cardol (2009) reported that work satisfaction contributed to life satisfaction where persons with physical disabilities were younger and in possession of higher levels of education. Lindsay, McDougall, Menna-Dack, Sanford, and Adams (2015) investigated the barriers faced by youth with physical disabilities to secure employment in Canada. Youth with and without disabilities experienced such barriers as a lack of jobs owing to the state of the economy and age discrimination, based on a lack of work experience. However, youth with disabilities also faced the hindrances that affected adults with disabilities, such as a lack of physical access to the workplace, the nature of work and the employer's inadequate knowledge about managing disability.

In this research, persons with physical disabilities of working age, namely 18 to 55 years, were sampled, since the receptivity of employers to hire them lay at the core of the study.

3.2.2.4 Transformation of values

Acquired disability, as opposed to congenital disability, disrupts the expected life course of the person affected, often prompting a re-assessment of their values and priorities, as well as the construction of a new identity in an effort to adjust to their changed circumstances. According to Athanasou (2017), when disability occurs following personal injury, major personal adjustment is required since former life assumptions, plans and aspirations are stifled. Personal counselling and then career counselling need to precede vocational guidance and placement in a job.

Gill (2001) posited that persons with acquired disabilities resulting from personal injury or illness, developed new attainable goals and a keener perception of life and small things. Together with other persons with disabilities, they attempt to take collective action against unfair attitudes and practices, to counter misconceptions about their identity and create awareness about disability. Some refused to be treated as invisible and took pride in their residual abilities and their achievements. In effect, they validated themselves despite society's standards that define normal functioning and acceptable appearance. The assumption that functional limitation reduced the enjoyment of life was disputed by many persons with disabilities. Gill (2001) also referred to "master tragic identity" following disability, and emphasised that disability involved certain limitations in certain situations owing to imposed societal barriers apart from the actual personal incapacity. It was assumed that the disability experience depended on the stage of adaptation and acceptance of functional loss that the person with a disability has reached, be it denial, anger, depression or emotional resolution, which, in turn, affect interpersonal interactions.

The impact of disability on an individual would ostensibly depend on, inter alia, the attributes of the person affected and the type, onset and severity of the condition. The literature studied tended to reflect a generic approach without indicating the type or onset of disability. It can be accepted that a person with a congenital disability would have grown accustomed to their impairment, while acquired disability would rapidly change the person's life with concomitant physical and psychosocial consequences. To make a contribution to knowledge, the persons with physical disabilities who participated in this research, were questioned about the impact of their disability on their life in general where changed values would have come to the fore.

3.2.2.5 Interpersonal interaction

Stereotyped perceptions of persons with disabilities harboured by able-bodied persons were discussed in Chapter 2. The literature suggests that persons with disabilities are acutely aware of these prejudices and either withdraw from the social world or make compromises in order to gain acceptance, both of which would inhibit interpersonal interaction.

According to Makas (1988), the tension that often arises during interactions between persons with disabilities and able-bodied persons could be ascribed to misunderstandings of one another's expectations rather than negative intentions. Well-intended assistance could be misconstrued and emphasise the disability. A person with a disability could be made to feel patronised and even infantilised, disrupting his or her sense of normality and competence. In interactions with persons with disabilities, able-bodied persons have reported emotional distress, heightened physiological arousal, less motor activity, constrained verbal behaviour, reluctance to express their true beliefs and a tendency to terminate interactions sooner than would be the case with able-bodied persons. It would seem that persons with disabilities prefer clear communication with defined expectations and would request assistance if required. Makas (1988) recommended training to

improve the interaction between those with and without disabilities in order to foster successful relationships.

Gill (2001) also alluded to problematic interpersonal relations between persons with and without disabilities and described these as, ostensibly, strained, awkward and disconnected. In the case of acquired disability, the experience was often associated with exclusion from ordinary life, denial of full humanity, the loss of familiar social roles and even rejection from family members. Disability changes the person's identity which thwarts self-esteem and self-determination, forcing the individual to disguise his or her authentic self and feign appropriate reactions to gain acceptance and avoid mistreatment or retaliation. Persons with disabilities endeavour to minimise stigma in social settings with humour, proving their competence and concealing differences. They steer the conversation towards normal topics, agree with others' points of view and seek common ground.

Kennedy and Rogers (2000) conducted a study in the UK into the prevalence of depression and anxiety in spinal cord injured persons with either tetraplegia or paraplegia and found that these conditions remained present over time.

It was inferred that persons with disabilities feel compelled to make adjustments in several areas of their life, including navigating interpersonal actions and reactions, probably in an effort to avoid conflict and rejection. Interpersonal interaction, from the perspective of persons with disabilities, was included in this research. To make a contribution to knowledge, the researcher covered topics such as treatment by team members and supervisors, inclusion in work allocation and decision-making, as well as acceptance of the disability by others.

3.2.2.6 Stereotyped perceptions

The International Labour Organization (ILO) in its C111 Convention, defined discrimination as follows:

Any distinction, exclusion or preference based on race, colour, gender, religion, political opinion, national extraction or social origin, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation (ILO, 1958, art. 1)

Persons with disabilities are on the receiving end of stereotyped perceptions directed at them. Murphy, Scheer, Murphy, and Mack (1988) contended that wheelchair users have strained interactions with other people. They are subjected to unfavourable identities and made to feel like objects of discrimination. Disability can be seen as an “in-between state”, for the person is neither sick nor well, nor fully alive, and assigned a temporary sick role. Murphy et al. (1988) conducted research on persons with paraplegia and quadriplegia, many of whom could have re-entered the social arena, but who chose instead to isolate themselves because of prejudice. Wheelchair users were fully aware that when in public, they were given a wide berth by the able-bodied and treated as if contagious and/or invisible.

According to Shakespeare (2014), the label assigned to a person with a particular disability, becomes the most prominent feature of the person and disregards personality, gender and ethnicity. He referred to “identity spread” where the label is based on the initial diagnosis and every behaviour of the individual is then attributed to the condition. However, in the political arena, the “badge” will be accepted if needed to facilitate change.

Groce and Murray (2013) studied beggars with disabilities in Addis Ababa, Ethiopia, and found that many possessed skills and work experience that could be better utilised rather than categorising them as having no other options. Many showed drive, organisational skills and perseverance.

A South African author, McDougall (2006) posited that persons with disabilities were viewed as either heroic or pitiable, which disregards their achievements. Perceiving the person as dependent masks his or her individuality and humanity, while insincere compliments and admiration such as “you’re brave, courageous” are demeaning. Furthermore, a positive attitude on the part of a person with a

disability in itself engendered pity. It would seem that persons with disabilities felt judged as being dependent, pathetic, economically disadvantaged and in need of handouts and sympathy. Reference was made to the misconception that disability is homogeneous, for example, that disability represented a person in a wheelchair, or that a person with blindness, deafness or a physical impairment was also intellectually challenged or unable to speak for himself or herself and his or her companion or assistant was addressed instead.

Baffoe (2013) interviewed approximately 500 persons with disabilities in Ghana. The most profound barrier to living a normal, productive life was found to be stigmatisation of disabilities, flowing from superstition, ignorance, lack of empathy, fear and traditional beliefs, resulting in anger, avoidance, low self-esteem and feelings of hopelessness on the part of persons with disabilities.

It can therefore be surmised that persons with disabilities are wrongfully perceived as homogeneous, irrespective of their particular disability. Personality and behavioural characteristics are assigned to them which they experience as, at the very least, demeaning. Stereotyped perceptions lie at the core of negative attitudes harboured towards persons with disabilities. To make a contribution to knowledge, in this study, the researcher included elements such as positive and negative experiences of persons with physical disabilities that occurred in their quest for work, as well as issues that caused unhappiness and discomfort to them in the workplace.

3.2.3 Dimensions in the employment context

The barriers to employment experienced by persons with disabilities, from the perspective of external sources, were conceptualised in Chapter 2. In addition, this research also included the perspectives of persons with disabilities in their pursuit of employment. An array of issues emerged from the literature which served as the point of departure.

3.2.3.1 *Self-efficacy in job-seeking endeavours*

Efficacy refers to the power or capacity to produce the desired result or effect. Barlow et al. (2008) explored the self-efficacy of persons with disabilities and its impact on seeking employment. In this context, self-efficacy entails the confidence to request and complete a job application form, creating a résumé, travelling to the interview, interviewee skills, self-presentation and communication skills during the interview, meeting new people and contributing to discussions. Depending on the type and severity of the disability, a person could feel at a disadvantage to disclose his or her needs for physical access to facilities, accommodation and/or assistive technology, an assistant, or the like. Low self-efficacy can result in self-limiting, avoidance behaviour and forfeiture of job opportunities.

Lindsay, McDougall, Sanford, Menna-Dack, Kingsnorth, and Adams (2014) investigated the employment readiness skills of youth with disabilities. They found that mock job interviews and workplace role-play exercises served to identify the job interview skills required to improve their presentation at interviews. Furthermore, these skills should be included in life skills programmes. Merrill (2012) found that persons with disabilities who were attending learnerships, needed generic employment skills since they lacked knowledge of behavioural expectations and social norms required in the workplace.

Mock interviews and role-plays to develop job seeking skills could be introduced in Grade 12 as an essential life skill. To make a contribution to knowledge, the researcher explored the approaches adopted by persons with physical disabilities in their endeavours to seek employment, as well as the obstacles faced and associated experiences. It was necessary to establish how these approaches differed from the recruitment methods used by employers in order to make recommendations.

3.2.3.2 *Motivation to work*

Persons with disabilities, like their able-bodied counterparts, covet employment for similar reasons such as economic security, skills development and career advancement.

Schur (2002) suggested that persons with disabilities regard employment as a means to participate in mainstream society, reduce social isolation, feel useful and needed, experience higher levels of life satisfaction, escape poverty and counter depression and anxiety. They are less likely to challenge perceived unjust treatment or discrimination since they feel they have too much at stake to lose.

Stone and Colella (1996) posited that persons with disabilities might exert high levels of effort and job performance in order to modify other's perceptions of their competence. However, when subjected to negative feedback, they might attribute such to discrimination rather than acknowledge performance flaws on their part. Caga (2011) discerned that factors such as self-acceptance, self-confidence and adaptability to their disability, impacted on the levels of motivation and productivity of persons with disabilities. Mathaphuna (2007) asserted that employers should conduct a needs assessment in collaboration with their employees with disabilities to identify barriers, related to the job content and the work environment, in order to determine the accommodation and support necessary to enhance job performance and motivation.

Based on secondary data from the National Income Dynamics Study (2008; 2011) and a rural case study, Graham et al. (2014) determined that almost half of persons with disabilities in their study were unemployed with no desire to work, be it owing to them having severe disabilities or they discontinued searching for employment for health-related reasons or they had become despondent.

On a positive note, Marsay (2014) conducted a study of successful persons with disabilities and it emerged that they chose or created an enabling environment that

was aligned with their abilities and need for flexibility. They revealed a good ethic with a willingness to work hard and be dedicated; had support from superiors, colleagues and family; and possessed self-knowledge about their strengths and weaknesses. Nevertheless, some had to face difficulties with accessibility and transport; discrimination; and a negative self-esteem.

The researcher inferred that the level of motivation to work that a person with a disability displayed, would depend on factors that were unique to the individual in conjunction with variables in the workplace. To make a contribution to knowledge, the researcher questioned persons with physical disabilities involved in this study about their desire to work and their reasons for leaving prior jobs.

3.2.3.3 Declaration of disability status

Persons with visible, physical disabilities do not necessarily face the predicament of disclosure of their condition. However, persons with sensory, psychiatric, psychosocial or certain neurological disabilities tend to be confronted with the proposition of whether or not to disclose their disability status.

Stone and Colella (1996) posited that, to overcome bias, persons with disabilities could convince others that they maintain similar interests, opinions and values in an effort to reduce anxiety and perceived differences between them. However, the counter-argument suggests that the disclosure of disability status could have an adverse outcome. In their study, Gold et al. (2012) ascertained that, in some cases, employees with disabilities feared that if their disabilities were disclosed, employers and co-workers would misconstrue them as inert and deceitful, which could result in humiliation and resentment. Furthermore, they were anxious that co-workers would view accommodation as an unearned perquisite.

In accordance with the TAG (2017), persons with disabilities who require reasonable accommodation from their employer, must take responsibility to request viable accommodation and be familiar with their options.

Since this research focused on physical disabilities, the question of disclosure would centre around the required accommodation and/or assistive technology, if applicable.

3.2.3.4 Knowledge of accommodation and assistive technology

The type and severity of a disability would dictate the nature of accommodation and/or assistive technology required, if any, by a person with a disability. Interestingly, it emerged in the extant literature that persons with disabilities are not necessarily familiar with the available types of accommodation and assistive devices. The person may not have been exposed to, say, a rehabilitation professional who could have provided the appropriate advice. Training and a trial period in learning to use assistive technology were deemed essential for a person with a disability (Driscoll et al., 2001).

According to Stumbo, Martin, and Hedrick (2009), assistive technology is crucial to support individuals with certain physical disabilities to succeed in the pursuit of a career and plays a decisive role in closing the gap between functional limitations and participating fully in life. Gold et al. (2012) opined that persons with disabilities need to remain abreast of the available assistive technology through interaction with users, rehabilitation professionals, suppliers, exhibitions, relevant magazines and the internet. Persons with disabilities ostensibly felt compelled to demonstrate to an employer that the requested reasonable accommodation or assistive technology would be effective. They also maintained that assistive technology should be simple and functional, enabling them to take responsibility for their particular needs through assertive requests. Once in place, and trained to use the assistive technology, they felt more confident and empowered with executing their work.

In a community survey, Statistics South Africa (2016) posited that persons with disabilities should have access to affordable assistive devices to enable their independence and, in turn, facilitate their entry into the labour market. In the case

of mobility impairments, assistive devices include wheelchairs, walkers, prosthetic limbs, canes and crutches. Naturally, the built environment needs to be accessible.

The researcher surmised that persons with disabilities would be reliant on appropriate professionals to inform them of the available types of accommodation and assistive technology, in relation to their specific needs. To make a contribution to knowledge, persons with physical disabilities were requested by the researcher to indicate their familiarity with and need for accommodation and assistive technology to enhance their job performance.

3.2.3.5 Interpersonal discrimination

Persons with disabilities experience interpersonal discrimination, bias or prejudice in all spheres of their life, including in social engagement and workplace relations.

Robert and Harlan (2006) classified harassment as part of interpersonal discrimination, which takes the form of jest, mocking, teasing, mimicry, name-calling, innuendos, rumours, sabotage, rude or insensitive remarks and improper questioning of the person with a disability. Such harassment was also described as the “sting of hostility”.

Robert and Harlan (2006) conveyed that both obvious and subtle harassment of workers with disabilities still continued in the workplace. Jest occurred to the point that it became intolerable and made relationships difficult. Comments about wheelchairs and prostheses were insensitive and improper. Accommodation caused resentment and was labelled “special treatment”. Another form of interpersonal discrimination encompassed fictionalisation, which refers to acquired identity based on characteristics assigned to the person with the disability, irrespective of their actual traits. One such a fictional identity was the “incompetent”, implying that the person with a disability was incapable of performing at the same level as an able-bodied peer. Another fictional identity entails that of the “helpless”, where persons with disabilities were perceived to be

in need of parental guidance and they could or should not perform work on their own. They ostensibly required nurturing, guidance and unsolicited assistance. Furthermore, interpersonal discrimination includes marginalisation which manifests in various forms of social isolation, including being ignored by co-workers and supervisors, being excluded from the work routines, being stared at and being denied support, all of which exacerbate the stigma that often accompanies disability status in the workplace. In the worst situations, discomfort reportedly turns to distrust, dislike and even hatred. Snyder et al. (2010) revealed the occurrence of negative workplace experiences in their sample of workers with disabilities. Overt and subtle discrimination, procedural injustice and reduced levels of job satisfaction were reported. Baffoe (2013) studied a sample of 500 persons with disabilities in Ghana. They reported being oppressed, ridiculed and socially excluded owing to superstitions and belief systems.

The perspectives of persons with disabilities, as found in a large-scale survey on employment discrimination undertaken by the Australian Human Rights Commission (2016) included isolation at work which led to deterioration in their health and self-esteem; the predicament of disclosure or not of a hidden disability; at which stage of the employment process to disclose a disability; inaccessible recruitment practices such as online applications and psychometric testing or where a driver's licence is a prerequisite but not required for a particular job; bias in that they are not considered competitive with able-bodied counterparts and might be a risk or a liability; a general lack of understanding of the range, type and impact of different disabilities which results in negative or inaccurate assumptions; failure on the part of the employer to make reasonable adjustments, which adversely affects job performance; inaccessibility of workplaces including buildings, technology and communication methods; reduced career progression because of fewer opportunities for development; and discrimination experienced on the basis of a combination of attributes such as disability and gender or disability and sexual orientation (Australian Human Rights Commission, 2016).

Shakespeare, Mugeere, Nyariki, and Simbaya (2019) interviewed 104 economically active persons with physical and sensory disabilities, in Kenya, Uganda and Zambia. They reported that the most profound challenge they had to overcome was others' attitudes since they were subjected to mockery, ostracism and bullying.

It appears to the researcher that persons with disabilities experience interpersonal discrimination often in relation to their specific condition, and this treatment emanates from stereotyped perceptions. To make a contribution to knowledge, as part of this study, the researcher solicited comment from persons with physical disabilities in respect of interpersonal incidents and circumstances that had caused them unhappiness and discomfort in the workplace, despite related legislation that prohibits unfair discrimination, as presented in Chapter 4.

3.2.3.6 Onset of disability and employment

In her study, McKinney (2013) determined that the employment experiences of persons with disabilities emanated from the link between onset of disability, education and employment; the lack of commitment from employers to provide reasonable accommodation and create an accessible work environment; the lack of policy; and the negative attitudes towards disability. The onset of disability had a pronounced impact on the education and subsequent employment of persons with disabilities mainly owing to inadequate support systems. It was also ascertained that persons with congenital disabilities in particular found it more challenging to enter higher education institutions or to find work of a comparable standard, to that of persons with acquired disabilities.

Bogart (2014) investigated the satisfaction with life, self-esteem, disability identity and self-efficacy of persons with congenital and acquired disability, respectively. Findings indicated that the time of onset of the disability rather than its duration related to satisfaction with life and implied that congenital disability was associated with a higher level of satisfaction with life than was the case with acquired disability.

Shakespeare et al. (2019) conducted their study in Kenya, Uganda and Zambia. Education again emerged as essential for persons with disabilities. Those without an education were disadvantaged when they developed a disability later in life that excluded them from physical work such as farming.

In the case of this research, the convenience purposive sample of persons with physical disabilities had sustained injuries in vehicle collisions, and the reported disabilities were therefore acquired.

3.2.3.7 Workplace experiences

It would appear that once a person with a disability secured employment and entered the workplace, a whole new set of challenges arose, whether perceived or real, entwined with interpersonal discrimination, as discussed in a previous section.

a Access to suitable positions

The low employment rate of persons with disabilities, the essence of this study, ostensibly cannot be ascribed to reluctance to work or different job preferences on their part.

In a report titled “Strategies for skills acquisition and work for people with disabilities”, compiled for the ILO by, inter alia, the Human Sciences Research Council (HSRC, 2006), certain trends emerged. One trend was that early onset of a disability resulted in lower levels of employment than later onset, possibly owing to fewer prior opportunities to have developed social skills and networks. The majority of respondents were employed by others rather than self-employed and had become involved in a wide range of jobs. Many had secured work through relatives or friends, while a large portion had found work through NGOs, by going from door to door or through word-of-mouth referrals. Placement agencies and job advertisements played a minor role in the search for employment. Fear of disclosing one’s disability status was regarded as a barrier to employment. Many

of the unemployed respondents indicated that their disability had caused them to forfeit their jobs while some provided lack of skills as the reason. Another trend was that longer training seemed to provide better employment opportunities than short courses of less than six months. On-the-job training related to higher employment rates versus external training. The most frequently mentioned barriers to employment entailed lack of jobs, lack of awareness of employers and lack of skills training (HSRC, 2006).

According to Ali et al. (2011), while persons with disabilities are as likely as those without disabilities to desire a job, they are less likely to be actively looking for one, apparently since they feel less optimistic about finding one. Depending on the type of disability, fewer suitable jobs might be available, particularly in conjunction with a low education. By the same token, employers' attitudes, including discrimination and reluctance about workplace accommodation, often reduce the chances of a job offer and successful retention. It seems that, generally, persons with disabilities are no more or less likely to have flexible work schedules and they are as focused on money and as risk averse as their able-bodied peers.

The Kessler Foundation (2015), in a national employment and disability survey in the USA, reported the following key findings:

- (1) Persons with disabilities were striving to work, as indicated by those who were looking for work.
- (2) Persons with disabilities who were preparing to secure work, obtained medical treatment/rehabilitation and were attending college.
- (3) The most frequent approaches adopted to seek employment included applying for jobs online, enlisting the help of friends or relatives and contacting employers directly.
- (4) Unemployed persons with disabilities reported that the most prominent barriers to employment which they encountered were inadequate education or training, employers' assumptions that they were incompetent and a lack of transportation.

- (5) In the workplace, the main barriers they experienced entailed lower remuneration than others in a similar job and negative attitudes on the part of their supervisor and co-workers.
- (6) Among employed persons with disabilities, the most utilised forms of accommodation were flexible schedules, modified job duties, reduced hours, light duty, less demanding job tasks and physical accessibility.

The researcher deduced that access to work by persons with disabilities was influenced by several factors, not the least of which entailed the type of jobs available, the nature of skills training undergone, if any, and underutilisation of resources such as employment agencies and the media. Apart from including these factors in this study, to make a contribution to knowledge, the researcher elicited information from persons with physical disabilities on the obstacles experienced in their pursuit of employment, the approaches adopted to secure work and the reasons for being declined a job.

b Perceived unfair treatment

Unfair treatment as perceived by persons with disabilities constitutes an array of potential issues in the workplace.

In their model, Stone and Colella (1996) suggested that when persons with disabilities felt that were subjected to unfair treatment, a range of behavioural responses could ensue, including feelings of anger, resentment, frustration, rejection, humiliation, disappointment, job dissatisfaction, alienation, decreased motivation and lower levels of productivity. Also, they might attribute negative performance appraisals to unfair discrimination rather than to their own performance shortcomings and then disregard constructive feedback. Balser (2000) established that commonly perceived forms of unfair treatment occurred in respect of reasonable accommodation, decisions on promotions, supervisor and co-worker harassment, negative performance reviews, lack of training opportunities, disparate compensation and benefits, the application of disciplinary

action and retaliation for filing grievances and lawsuits. However, individuals with higher levels of education were less likely to report that they had experienced discrimination. In a similar vein, Schur, Kruse, Blasi, and Blanck (2009) found that persons with disabilities encountered a number of disparities at work, including lower pay, fewer benefits, diminished job security, higher levels of supervision, lower participation in decisions and less formal and informal training. These partly explained the higher probability of staff turnover and lower levels of company loyalty and job satisfaction. Naturally, these discrepancies vary across places of work. According to Gilbride et al. (2003), employment outcomes can be improved if cognisance is taken of the extent to which these factors are present in the employer's environment prior to placement.

It would seem that, like an able-bodied employee, a person with a disability seeks inclusion, respect, being heard and a sound job match that utilises his or her capabilities. The researcher inferred that persons with disabilities could experience unfair treatment associated with, inter alia, remuneration, the amount of supervision, discipline, performance evaluation, training and promotional opportunities, accommodation and workplace relationships. To make a contribution to knowledge, the researcher questioned persons with physical disabilities about negative experiences at work, if employed, or in their last job, if unemployed. However, perceived unfair treatment would likely be difficult to measure objectively.

c Access to training, development and promotional opportunities

Apart from the barriers to secure employment faced by persons with disabilities, as already covered, it would appear that, once employed, training and development opportunities also pose challenges. In the absence of training, promotional opportunities would be constrained.

In a report on strategies for skills acquisition and work for persons with disabilities, compiled for the ILO by, inter alia, the HSRC (2006), the findings suggested that persons with visual, physical or hearing impairments were more likely to gain

access to vocational skills training than those with intellectual impairments. In respect of duration of training, a rural person with a disability was more likely to access training of six to 12 months, while persons with disabilities in the city seemed to pursue courses of one year or more. The categories of skills acquired included the following: information technology; administration; telephone operating; clothing manufacturing and upholstery (including sewing and embroidery); woodwork; car mechanics; welding; hospitality; business and communication; art; drama; and media (including acting and television presentation); leadership; technical drawing; community-based rehabilitation work; nutrition; and security. The barriers to training were also linked to the type of disability, while insufficient funds, inadequate information and a lack of awareness on the part of training providers were generally cited as hindrances facing persons with disabilities. The least mentioned obstacle was family responsibilities.

Merrill (2012) explored the experiences of persons with disabilities attending a learnership in the Western Cape. Barriers encountered were physical access; stigma; transportation, including being “pushed” on trains; and lecturers who were unwilling to accommodate them. Learners from special schools felt that they were not adequately prepared for tertiary education. The majority of learners were not offered employment following completion of the learnership, for a variety of reasons. A positive outcome was that the attitudes of able-bodied persons improved following exposure to learners with disabilities.

In a study conducted in a South African public service department, Van Niekerk and Van der Merwe (2013) found that employees with disabilities considered the physical workplace, employment and training as unequal. They felt that the training offered was “window-dressing”, repetitive, of a low level and pointless in preparing them for career advancement. However, when prescribed or when they were persistent, they were afforded the opportunity to attend career-orientated training. Wiggett-Barnard (2013) ascertained that, even in companies that employed persons with disabilities, they experienced a lack of advancement opportunities,

more so when they were being accommodated. Inaccessible training venues also emerged as a barrier to course attendance.

The researcher inferred that training, development and promotional opportunities for persons with disabilities would be determined by, inter alia, the type of disability, availability of financial resources, suitable career-orientated courses and physical accessibility to institutions. To make a contribution to knowledge, the researcher determined the promotional history, qualifications and training needs of those persons with physical disabilities who formed part of this study, specifically in respect of recent skills training received, skills they felt they still needed and which facets of their job they felt competent to execute.

d Professionals with disabilities

In the context of the so-called “glass cliff”, which refers to the precariousness of work as experienced by marginalised groups, including persons with disabilities, Wilson-Kovacs, Ryan, Haslam, and Rabinovich (2008) investigated the barriers to career advancement of professionals with disabilities, based on their testimonies, and identified the following:

- (1) A lack of opportunity for career advancement emerged as a factor of precariousness. Professionals with disabilities reported that they were disallowed to take risks from which they could learn, develop their expertise and realise their potential. There also appeared to be a lack of acknowledgement of their contributions to the organisation, constructive feedback such as praise and criticism and influence in making decisions. They failed to be recognised as leaders and decision makers.
- (2) A lack of time and resources, as well as knowledge about disability, came to the fore. Professionals with disabilities were not always allowed the additional time needed to execute their tasks, which resulted in unnecessary pressure and stress. Insufficient knowledge about different disabilities and conditions resulted in a lack of resources and adjustments to address their needs.

- (3) A lack of organisational and peer support, both at the formal and informal levels, was raised as a barrier to career advancement. Such support included networking, mentoring and role models. Professionals with disabilities felt defined in terms of their condition rather than their abilities. It transpired that their responsibilities were allocated to the rest of the team. They felt that prejudice in the workplace led to a lack of support, as well as inadequate recognition, acceptance and inclusion.

e Managers with disabilities

In a UK study of managers with disabilities, Roulstone and Williams (2014) found that barriers prevail in respect of what managers with disabilities are considered able to do and be in organisations, limiting further promotion and workplace inclusion, exacerbated during times of major organisational change and at significant promotional points. Apart from the so-called “glass ceiling” (Braddock & Bachelder, 1994) that restricts access to managerial roles, these researchers made reference to the organisational positioning of managers with disabilities, as the so-called “glass cliff effect” and “glass partitions”. The glass cliff effect includes the promotion of historically under-represented or marginalised group members by placing them in precarious, risky or “dead-end” roles. Glass partitions or virtual barriers that limit the lateral or upward organisational movement of managers with disabilities may occur when a manager’s disability is brought to the fore, either when the condition flares up or when his or her role changes as a result of organisational restructuring, resulting in acceptance and support being reduced or withdrawn. A case in point would be the situation of a manager with a disability being assigned to a new superior and disclosure of the invisible disability becomes both fear inducing and risky.

According to Roulstone and Williams (2014), the glass partition effect denotes the reluctance of managers with disabilities to change roles or jobs both internally and externally, as a result of the interaction between the disabled person, colleagues, managers, changes in the impairment risk and organisational change. There

existed a perceived threat when exposing an impairment or its changes. The risk of forfeiting workplace adjustments that were established over time, also caused reluctance to move. Thus, successful managers faced barriers to advancement or new employment challenges, whether upwards or lateral. If managers with disabilities are not afforded exposure to different projects, they would lack the experience needed for senior management positions. Successful strategies for workplace inclusion require the acceptance of diversity and those who are different.

f Persons with disabilities in public entities in South Africa

The Department of Social Development tasked with, inter alia, advocacy and mainstreaming of the rights of persons with disabilities, commissioned a pilot study on the experiences of persons with disabilities employed in public entities (enterprises) in which the Airports Company of South Africa (ACSA) and ESKOM participated. The document titled “Report on the experiences of persons with disabilities in public entities” was published in March 2015. Physical disability alone represented 51 per cent of the sample of 113 participants and the majority had post-matric qualifications. In essence, the findings revealed that not all persons with disabilities declared their disabilities. Furthermore, some were not aware of their human rights or how these rights are protected, including their reasonable accommodation (RA) needs and entitlements. Some even acknowledged having heard about RA for the first time during this study, while others expressed cynicism about the genuineness of the provisions made in the legislation. A percentage of the participants confirmed that they had applied for and had been appointed in positions earmarked for persons with disabilities. Participants reported a mixture of positive and negative experiences when they had first applied, ranging from receptivity and helpfulness to indifference and judgemental attitudes. These experiences magnified inconsistencies with regard to access to developmental training, career advancement and participation in the full work life through social events and representation in workplace committees and forums. Various barriers were experienced relating to the type of disability as well as general organisational functioning, including physical, institutional, communication, attitudinal and social

barriers. However, upon alerting management about the barriers, some had been addressed while others were ignored. Some participants stated that they had taken action to ensure speedy attendance to these barriers (RSA, 2015b).

It would appear that professionals with disabilities and managers with disabilities experienced the same barriers as persons with disabilities in general, in respect of training, development and promotional opportunities.

3.2.3.8 *Knowledge of rights*

A prerequisite for asserting one's rights would be knowledge about such rights.

Kim and Williams (2012) reported that the persons with disabilities in their study felt social discrimination and expressed discouragement with the system when attempting to secure access and accommodation in the workplace. However, findings substantiated a need for a more comprehensive knowledge about the Americans with Disabilities Act (ADA) and the employment provisions contained in this legislation.

The contents of the document titled "Report on the experiences of persons with disabilities in public entities" (RSA, 2015b) addressed the level of awareness of human rights of employees with disabilities. It emerged that not all persons with disabilities knew their human rights and/or how these rights were protected, reinforcing the need for more awareness-raising about disability and/or education as well as other relevant interventions. Persons with disabilities are only able to address discriminatory practices if they are aware of their rights. Those who were aware of their rights cited their sources of information about provisions made in the different pieces of South African legislation as television, radio, different articles (print media) and workshops attended. Other sources specified included membership of youth organisations and disabled persons' organisations such as Disabled People South Africa, the internet, word of mouth and internal communication by the leadership of employer organisations (RSA, 2015b).

The South African Human Rights Commission published a report titled “Promoting the right to work of persons with disabilities: Toolkit for the private sector” (2015) which serves to enlighten employers and persons with disabilities alike about this right to work.

In this study, to make a contribution to knowledge, persons with disabilities were questioned about the accommodation and/or assistive technology they already utilised or needed in order to execute their jobs. The latter would require a knowledge of suitable accommodation and/or assistive technology.

3.2.3.9 Self-employment

This chapter has focused on the challenges faced by persons with disabilities to secure employment in a formal setting. However, as became clear from the literature review presented in section 3.2.1.2, many persons with disabilities, especially in Africa, are reliant on creating a form of self-employment to generate an income (Ghore, 2016; Naami, 2015).

Ashley and Graf (2017) found that the majority of participants in their study in the USA, had experienced negative and/or unhelpful incidents with vocational rehabilitation counsellors which contributed to their transition to self-employment. An advantage of self-employment for a person with a disability entails flexibility in scheduling commitments around personal and health needs, in addition to independent decision-making, maintaining dignity and reducing misconceptions about the competencies and contributions of persons with disabilities. Self-employed persons with disabilities had faced negative experiences at work as employees, including a lack of prospects; intolerance from others; transport problems; an absence of accommodation; and dismissal. However, these participants also admitted to challenges such as time management when attempting to balance work and rest; networking and visiting clients; insufficient manpower resources and funding to expand their business; and the need for a mentor or coach.

To make a contribution to knowledge, in this study, persons with disabilities were questioned about their future goals and it was anticipated that a substantial portion would indicate the desire to be self-employed.

3.3 DISABILITY ADVOCACY

Disability advocacy is inextricable from the rights of persons with disabilities. Collective participation in advocacy groups and forums has increased as persons with disabilities seek to gain recognition, influence public policy and assert their rights such as the right to employment. Advocacy organisations have been formed to represent the interests of the disability community and influence governmental institutions that design and implement public policy. In the context of this research, the Disability Charter of South Africa (DPSA, n.d) contains 18 articles of which three address employment, transport and the built environment, respectively.

3.3.1 Formation of disability organisations

Disability organisations are generally formed based on the type of disability, although umbrella organisations as well as national and cross-national coalitions have materialised, specifically to advocate for disability rights, since it is a human rights issue and not only a health matter (Barnart, Schriener, & Scotch, 2001). Mollow (2004) suggested that disability had been neglected, while the issues of other marginalised groups received a great deal of attention. Identity, action and subjectivity are the familiar calls of disability movements. Kaplan (n.d.), posited that there are many persons to whom the ADA definition of disability would apply, but who do not consider themselves disabled since they wish to avoid the stigma while newly disabled persons may still maintain the stereotypes of disability harboured by able-bodied persons. According to Bhambra and Margree (2010), movements involved in issues of social justice for marginalised groups would allow for provisional reforms to prevailing conditions of injustice without having to question the basis for the movement. Each achievement of a movement would require revision of its aims over time.

Dunn and Burcaw (2013) postulated that disability identity marks individuals as part of a group and as members of a minority who experience marginalisation and discrimination. Disability identity implies a connection to, or solidarity with, the disability community and facilitates a positive self-image.

Influential disability movements have emerged worldwide. In South Africa, there are numerous organisations that represent different disabilities, with the common goal of creating awareness and protecting and promoting the rights of persons with disabilities. This has also culminated in legislation, conventions and the fully-fledged academic discipline of disability studies.

3.3.2 Advocacy organisations

Advocacy organisations or movements, representing persons with disabilities, have proliferated across the globe. In the USA, the American Association of People with Disabilities (AAPD) has several affiliates such as Disabled People International (DPI), promoting, inter alia, equal opportunity and economic power for persons with disabilities (AAPD, n.d). Naturally, employment and the workplace are central themes in the aim to promote relevant legislation and policy as well as the enforcement of existing legislation.

Balser (2000) contended that as persons with disabilities continue to assert their right to equal opportunity, a growing presence of persons with a variety of disabilities in the workplace can be envisaged. Disability movements and disability legislation intend to change the physical environment and eliminate social barriers to full inclusion in society, such as workplace discrimination. According to disability activists, social and physical barriers transform persons with impairments into persons with disabilities.

Barnart et al. (2001) purported that individuals who are themselves disabled, are deemed legitimate representatives of the disability community rather than parties who act on their behalf for political gain. The “disability community” consists of only

a portion of persons with disabilities since many decline such membership owing to the stigma attached to the disability aspect of their identity. In a similar vein, Shakespeare (2014) argued that the majority of persons with disabilities do not associate with the so-called “social model” or a disability identity. In Western countries, approximately half of all persons with disabilities are over the age of 50, yet most activists enter the disability movement at a much younger age. Also, older persons with disabilities are unlikely to identify with a civil rights outlook.

3.3.3 South African advocacy organisations

South Africa hosts numerous national disability organisations and national sectoral organisations. The overarching advocacy organisation is the South African Disability Alliance (SADA) with affiliated members of which the most prominent is Disabled People South Africa (DPSA), with the motto “Nothing about us without us”. Formed in 1964, it is a cross-disability organisation, controlled and led by persons with disabilities. DPSA endeavours to increase awareness of issues facing persons with disabilities across the country, both within and outside the disability sector (DPSA, n.d.).

The objectives of DPSA include, inter alia, to protect and promote the interests of persons with disabilities in South Africa; to comment on existing or pending legislation which affects persons with disabilities and to petition for or promote any act or policy intended to enhance the full participation of persons with disabilities; to promote and develop public relations designed to inform the general public about disability and to establish appreciation of the problems experienced by persons with disabilities; and to cooperate with national and international bodies representing the interests of persons with disabilities (DPSA, n.d.).

According to Bokies and Mhlari (2009), a general aim is to undertake or advise on any matter that may be in the interest of members of DPSA and the general public in relation to matters that concern persons with disabilities.

The Disability Rights Charter of South Africa represents the voice of the organised disabled community in South Africa and contains 18 Articles. Within the scope of this research, which addressed the causes of exclusion of persons with physical disabilities from employment, it was deemed apt to present Article 5 of the Charter, which declares that all persons with disabilities will have the right to employment in the open labour market, while appropriate measures, such as quota systems and training programmes, will be implemented by government and employers to ensure that opportunities are created in the workplace which enable the full realisation of this right; the state will provide incentives to employers, such as tax concessions, to encourage them to employ persons with disabilities; and state assistance will be provided to persons with disabilities to encourage them to pursue income generation through workshops and self-help projects (DPSA, n.d.).

Since the inception of the Disability Rights Charter, new policies and conventions related to disability have been adopted which are presented in Chapter 4.

Howell, Chalklen, and Alberts (2006) asserted that DPSA and its allies continue to apply pressure on the South African government to prioritise the creation of equal opportunities for persons with disabilities. Equity for persons with disabilities can only materialise when marginalisation and deprivation are exposed, challenged and overcome.

Although not considered advocacy organisations, per se, disability employment agencies that specialise in disability employment support, deserve recognition. Based on their websites, the researcher deduced the services offered by these service providers as follows:

- (1) Placement of suitably qualified persons with disabilities in permanent or contract positions, following sourcing, screening and interviewing of candidates.
- (2) Provision of learnerships to acquire accredited qualifications.
- (3) Job coaching support, such as a helpdesk to support employers.

- (4) Consulting with employers to facilitate integration, disability-related BBBEE solutions and enterprise development initiatives in respect of persons with disabilities.
- (5) Sensitisation and disability awareness workshops.
- (6) Employer forums to enhance networking and promote the employment of persons with disabilities.
- (7) Disability audits to assist employers with legal compliance of disability equity quotas.
- (8) Guidance to employers on constructing the job advertisement, the short-listing of applicants and the job interview (Progression Transformation Enablers, n.d.; I Can! Work, n.d.).

To make a contribution to knowledge, certain South African disability organisations and disability service providers, as important role players in the field of disability, were approached for their perspectives on the causes of exclusion of persons with disabilities from the workplace and the interventions that could serve to assuage this situation.

3.4 CHALLENGES FACED BY PERSONS WITH DISABILITIES TO SECURE EMPLOYMENT: AN OVERVIEW

The bulk of the extant literature studied that covered the perspectives of persons with disabilities involved physical disabilities, but in many instances a generic approach was adopted.

Several aspects contained in the overview of the exclusion of persons with physical disabilities from employment as presented in Chapter 2, also apply to Chapter 3. However, the latter focused on the perspectives of and challenges encountered by persons with disabilities in respect of their quest for employment.

Mitra, Posarac, and Vick (2011) analysed World Health Survey data (2002-2004) for 15 developing countries of which six were African, in terms of education,

employment, living conditions, household expenditures and health care costs. Persons with disabilities were generally worse off in 14 of the 15 countries and experienced multiple forms of deprivation, lower educational outcomes and lower rates of employment. However, it was acknowledged that advances have since been made in the methods used for the collection and analysis of data on disability.

As per Statistics South Africa (2018), persons with disabilities amounted to 7.7 per cent of the population in 2016. According to the Quarterly Labour Force Survey: Q1: 2020, the official unemployment rate was 30.1 per cent consisting of 7.1 million people. However, the expanded unemployment rate was 39.7 per cent consisting of 10.8 million people of whom 2.9 million were discouraged job seekers and 0.8 million had other reasons for being economically inactive (Statistics South Africa, 2020). The discouraged job seekers would presumably include persons with disabilities who have severe disabilities and those who have become despondent as reported by Graham et al. (2014).

The National Development Plan 2030 declared that disability targets which had not yet been attained encompass the two per cent employment of persons with disabilities in the public sector, four per cent skills development and five per cent of public sector procurement to be awarded to businesses owned by persons with disabilities. For 2030, these targets are set at ten per cent, seven per cent and five per cent, respectively (RSA, 2015c).

As early as 2005, Dube (2005), provided reasons why these targets had not been met, namely disability was not a priority; the lack of education and skills of persons with disabilities; inappropriate recruitment strategies; and inaccessible transportation.

To date, world-wide, the majority of persons with disabilities remain poor and unemployed, the latter owing to inadequate education and vocational rehabilitation; ineffective legislation; and discrimination against this group (RSA, 2015c; WHO, 2011). The literature review contained in Chapter 3 reflected the perspectives and experiences of persons with disabilities, as reported by them.

The most pronounced barriers that they experienced in the domain of employment entailed inaccessibility to the built environment, transportation and technology (Ghore, 2016; Hammel et al., 2015; Koech, 2016; Seirlis & Swartz, 2006; Snyman, 2009; Ximba, 2016); negative attitudes that culminated in stereotypes about persons with disabilities, stigma, discrimination, labelling and even harassment (Australian Human Rights Commission, 2016; Ghore, 2016; Naami, 2015; Shakespeare, 2014; Snyman, 2009; Ximba, 2016); a lack of reasonable accommodation to execute the essential functions of the job, which amounted to discrimination (Balsler, 2000; Kim & Williams, 2012; Naami, 2015; Snyman, 2009); and a lack of education and/or skills (Baffoe, 2013; Hernandez et al., 2007; Naami, 2015; Shakespeare et al., 2019; Sipuka, 2011).

Other obstacles faced by persons with disabilities encompassed a lack of awareness of, knowledge of and exposure to this group, which led to stigma and ignorance about the management of disability matters (Baffoe, 2013; HSRC, 2006; Lindsay et al., 2015 ; Wilson-Kovacs et al., 2008; Ximba, 2016); a lack of development/training and promotional opportunities (Naami, 2015; Schur et al., 2009; Van Niekerk & Van der Merwe, 2013; Ximba, 2016); the nature of the work (Lindsay et al., 2015); interpersonal interaction that was associated with tension, ridiculing, fictionalisation of character and even ostracism (Gill, 2001; Robert & Harlan, 2006); disclosure of one's disability status, which could result in humiliation or rejection (Gold et al., 2012), while many persons with disabilities are unfamiliar with the available types of accommodation and assistive technology (Driscoll et al., 2001); and at which stage of the recruitment process to declare their disability (Australian Human Rights Commission, 2016) to qualify for accommodation (TAG, 2017).

Acquired disability seems to have a more adverse impact on the individual in terms of life adjustments, self-esteem and feelings of anxiety and depression than congenital disability (Athanasou, 2017; Gill, 2001; Kennedy & Rogers, 2000).

Persons with disabilities could become pessimistic about securing employment (Ali et al., 2011) and even opt out of the labour market owing to severe disability, health

problems or feelings of despondency (Graham et al., 2014). As member states of the United Nations begin to implement the articles of the CRPD (2006) and design and enforce their own related policies, the fate of persons with disabilities should improve, but the road ahead is anticipated to be long.

3.5 CHAPTER SUMMARY

In this chapter, the perspectives of persons with disabilities were conceptualised pertaining to the challenges they face to secure employment, as derived from the extant literature. A number of selected studies, originating from developed and developing countries, relating to the employment situation of persons with disabilities were discussed and evaluated in detail. Environmental barriers that inhibited the participation of persons with disabilities were presented in the context of society at large and the domain of employment. Disability advocacy, which is inextricable from the rights of persons with disabilities, including the Disability Rights Charter of South Africa, was addressed. The chapter concluded with an overview of the challenges faced by persons with disabilities and the current state of affairs.

The next chapter expounds on the mechanisms that could serve to promote workplace inclusion of persons with physical disabilities.

CHAPTER 4

MECHANISMS TO PROMOTE WORKPLACE INCLUSION OF PERSONS WITH PHYSICAL DISABILITIES

In this chapter, the mechanisms designed to promote workplace inclusion and equality of persons with physical disabilities are discussed. Related global policy frameworks and those pertaining to the African continent, African countries and South Africa are described. Furthermore associated societal, international, national and organisational interventions, as contained in the extant literature, are presented.

4.1 INTRODUCTION

Mechanisms, be they conventions, laws, policies, strategies or interventions pertaining to disability, endeavour to facilitate the integration of persons with disabilities into society and the economy. The latter would incorporate measures which increase the employment rate of persons with disabilities, underscore their rights in the workplace and create awareness of disability matters and management. These mechanisms address disability from a generic perspective and not by type of impairment, thereby including all types of disabilities.

4.2 GLOBAL POLICY FRAMEWORKS

At the forefront of formulating global policies to protect and promote the rights of persons with disabilities, stand the United Nations (UN), The World Health Organization (WHO) and the International Labour Organization (ILO).

4.2.1 United Nations (UN)

Disability has been on the agenda of the UN for an extended period, providing the international community with a policy framework to enhance the participation of persons with disabilities in life on an equal basis with their able-bodied

counterparts. The three main UN disability mechanisms entail the World Programme of Action concerning Disabled Persons (1982), the Standard Rules on the Equalisation of Opportunities for Persons with Disabilities (1993) and the Convention on the Rights of Persons with Disabilities (CRPD) (2006). The UN and its agencies and commissions are responsible for monitoring and evaluating the progress of member states (state parties) in implementing the relevant policies. South Africa signed the Convention and its Optional Protocol on 30 March 2007 and ratified the Convention and its Protocol on 30 November 2007 (UN Enable Newsletter, 2007).

The purpose of the CRPD reads as follows:

To promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity (CRPD, 2006, p. 4).

The CRPD contains 50 articles of which two hold direct implications for employers and relate to the aims of this research, namely Article 9 (Accessibility to the built environment, transportation, information and communication, including technology and systems); and Article 27 (work and employment, with emphasis on the right of persons with disabilities to work in an open, inclusive and accessible labour market, with equal opportunities and equal remuneration for work of equal value. Reasonable accommodation should be provided where necessary) (CRPD, 2006). Article 24 of the CRPD (2006) stipulates free primary and secondary education as well as life skills and social development skills. Thus, educational support is crucial for persons with disabilities. According to Mostert (2016), the criteria contained in the CRPD are based on the assumption that governments and citizens are willing and able to implement the CRPD effectively. However, questions arise about their political will and the availability of organisational structures.

The value of the CRPD (2006) encompasses its articulation of concepts relating to disability and equality while raising awareness and comprehension of measures to counter the social and economic exclusion of persons with disabilities (Cole, 2013).

4.2.2 International Labour Organization (ILO)

The ILO is a specialised agency of the UN with a tripartite structure that incorporates the views of governments, employers and workers in order to set labour standards and formulate policies and programmes. The ILO aims to promote the rights of people at work, to encourage decent employment opportunities, and to enhance social protection and dialogue pertaining to work-related issues (ILO, 2019).

The International Labour Office is the permanent secretariat of the ILO and focuses on the overall activities of the ILO (ILO, 2019). The ILO has published literally hundreds of reports relating to labour issues (ILO, 2020), including those relating to the employment of persons with disabilities. Some of these reports include the following:

- (1) Promoting the Employability and Employment of People with Disabilities through Effective Legislation (Southern Africa) – South Africa Country Profile (ILO, 2006)
- (2) Strategies for Skills Acquisition and Work for People with Disabilities in Southern Africa (ILO, 2007)
- (3) Disability in the Workplace: Company Practices (ILO, 2010)
- (4) Promoting Employment Opportunities for People with Disabilities: Quota Schemes (ILO, 2019)

South Africa was a member of the ILO from 1919 to 1966, and was readmitted on 26 May 1994 (ILO, 2020).

The ILO provides guidance to employers on managing disability in the workplace by adopting relevant strategies in line with existing legislation (Nxumalo, 2014).

4.2.3 World Health Organization (WHO)

The primary role of the WHO is to direct and coordinate international health questions within the UN system in the domains of health systems including noncommunicable and communicable diseases. The WHO has 194 member states in six regions (WHO, 2019), including South Africa. The World Health Assembly is the supreme decision-making body which adopts resolutions on key health issues to urge member states to undertake specific actions in this regard (WHO, 2020).

The World Report on Disability (WHO, 2011) reported on the global picture of disability, based on extant research. Barriers that hindered persons with disabilities from entering the labour market were described in this report along with tailored interventions to counter these obstacles (WHO, 2011). Aspects of this report pertaining to this study, were presented where applicable.

4.3 AFRICAN CONTINENTAL POLICY FRAMEWORKS

The Protocol to the African Charter on Human and Peoples' Rights on the Rights of Persons with Disabilities in Africa (2018) aims to promote, protect and ensure the dignity and human rights of persons with disabilities. The Protocol contains 44 articles, the content of which is comparable with that of the CRPD (2006). In relation to this study, Article 19 (Right to work) of the Protocol specifies that a person with a disability has the right to decent work, fair working conditions and protection against exploitation, while measures are described to facilitate this right to work (African Union Commission, 2018). The Third Continental Plan of Action for the African Decade of Persons with Disabilities (2013) which spans 2010 to 2019, presents eight strategies for implementation at national level. This plan aims to achieve equality, inclusion and empowerment of persons with disabilities in Africa. The ratification and implementation of the CRPD and its Optional Protocol are

encouraged along with the formulation of employment equity policies and legislation by African countries. Livelihoods, work and employment are addressed as a subsection of promoting the inclusion of persons with disabilities in all sectors of society, with a focus on, inter alia, creating awareness of the capabilities of persons with disabilities; designing enabling, barrier-free, accessible environments; introducing incentives for employers to hire persons with disabilities; offering recognised qualifications through learnerships; and developing preferential procurement strategies and self-employment of persons with disabilities (African Union Commission, 2013).

4.4 AFRICAN COUNTRIES' POLICY FRAMEWORKS

Fernandez, Rutka, and Aldersey (2017) established which of the 55 African countries had ratified the CRPD and which ones had formulated a national disability policy to ensure the rights of persons with disabilities in their countries. It became apparent that 32 African countries had taken both of these steps, which suggests progress towards fulfilling the CRPD requirements. Those countries who are not yet on board with the CRPD, possibly lack the financial and infrastructure capacity to research and implement disability policies or consider their existing policies to be adequate. There is also a school of thought that Africa would benefit from a regional convention that takes cognisance of profound issues facing Africa, not to mention adverse behaviours and rituals aimed at persons with disabilities (Fernandez et al., 2017).

According to Mostert (2016), in Africa, stigma attached to disability is an underlying cause of discrimination against persons with disabilities and surpasses geographical, cultural and ethnic boundaries. Furthermore, the negative attitudes towards persons with disabilities, caused by stigma, could obstruct the implementation of the CRPD in Africa. Such cultural attitudes include perceiving disability as a curse or punishment, or shameful.

In the next section, African disability policies and progress on their implementation will be described. However, it should be mentioned that in respect of several African countries, limited or no such information could be located – hence the omission of reference to them. The South African scenario is presented last owing to the quantity of its policies.

4.4.1 Botswana

In Botswana, the National Policy on Care for People with Disabilities (1996) addresses disability matters, while this country has not ratified the CRPD (Fernandez et al., 2017).

According to Msipa (2016), Botswana laws do not satisfy Article 27 of the CRPD (2006) since they do not make provision for the right of persons with disabilities to work.

4.4.2 Ethiopia

In Ethiopia, the National Plan of Action of Persons with Disabilities (2012) serves to address disability matters and this country ratified the CRPD in July 2010 (Fernandez et al., 2017).

Despite measures to promote the rights of persons with disabilities, they remain less likely to be employed than able-bodied persons, especially with an estimated unemployment rate of around 24 per cent and barriers to skills training and education, inaccessible environments, discrimination and poor job-seeking strategies. Furthermore, around 95 per cent of Ethiopians with disabilities appear to live in poverty, which means they have to rely on family support or resort to begging in the streets (ILO, 2015).

4.4.3 Ghana

In Ghana, the Persons with Disability Act 715 of 2006 addresses disability matters and this country ratified the CRPD in July 2012 (Fernandez et al., 2017).

Despite the Persons with Disability Act (2006) and the National Council on Persons with Disability, established in 2009, the government still needs to do a lot to overcome challenges that adversely affect the rights of persons with disabilities, including access to education and employment (Baffoe, 2013). According to Deen-Tarawally (2019), in Ghana, the National Social Protection Strategy and Poverty Reduction Interventions enable persons with disabilities to participate in the national development process, bolstered by policies and programmes aimed at the implementation of the Persons with Disability Act and the CRPD (2006).

4.4.4 Kenya

In Kenya, the Persons with Disabilities Act 14 of 2003 addresses disability matters and this country ratified the CRPD in May 2008 (Fernandez et al., 2017).

Kenya's Persons with Disabilities Act of 2003 potentially increased the demand for employees with disabilities. It entitled an employer who modified the physical work environment to provide reasonable accommodation, to additional tax deductions equivalent to 50 per cent of the costs of workplace improvements or modifications (Tesemma, 2014).

Accurate statistics are unavailable about the prevalence of disability among the Kenyan population which is problematic in respect of formulating possible support or interventions (Mostert, 2016). According to Mostert (2016), it is unlawful for a person with a visual or hearing disability to become president of Kenya. Stigma and superstitions associated with disability result in persons with disabilities being perceived as a financial liability and less able to make an economic contribution. Naggita-Musoke (2017) referred to the Persons with Disabilities Bill (2016) which

guarantees the rights to education, health and employment of persons with disabilities, not contained in the 2003 Act. However, the impact of this Act and the Bill is not yet known.

4.4.5 Rwanda

In Rwanda, the National Council of Persons with Disabilities Strategic Plan and its Operational Plan (2013) addresses disability matters. This country ratified the CRPD in December 2008 (Fernandez et al., 2017).

Although Rwanda has taken up a prominent position in Africa in developing policies to enhance the quality of life of persons with disabilities, a large void still exists in the realisation of their rights (Tigere & Moyo, 2019). According to Njelesani, Siegel, and Ullrich (2018), research in Rwanda in respect of compliance with the CRPD (2006) has focused on Article 25 (Health), Article 7 (Children with disabilities), Article 8 (Awareness-raising) and Article 9 (Accessibility), thus excluding Article 27 (Work and employment).

4.4.6 Sierra Leone

In Sierra Leone, the Persons with Disabilities Act 3 of 2011 addresses disability matters. This country ratified the CRPD in October 2010 (Fernandez et al., 2017).

Several institutions have been established to address disability matters but legislation fails to prohibit discrimination against persons with disabilities. Failure to implement important provisions of the Act is ascribed, inter alia, to understaffing of the National Commission for Persons with Disabilities; inaccessibility of the environment, including tertiary institutions; a lack of resources; while the National Development Fund for persons with disabilities has not materialised (Tigere & Moyo, 2019).

Apart from legislation to protect the rights of persons with disabilities, the government needs to ensure the holistic implementation of the Act as well as inclusive education and equal opportunities. Despite free education at tertiary level for persons with disabilities, the environment and buildings remain inaccessible. Programmes and actions are needed to ensure the rights of persons with disabilities, as stipulated by national and international laws (Deen-Tarawally, 2019).

4.4.7 Uganda

In Uganda, the National Policy on Disability (2006) addresses disability matters and this country ratified the CRPD in September 2008 (Fernandez et al., 2017).

According to Ojok (2015), the Persons with Disabilities Act (2006) failed, since financial resources were not allocated for its implementation, resulting in a lack of political and administrative support. Furthermore, both this Act and the Persons with Disabilities Bill (2014) omit the concept of reasonable accommodation, which has profound implications for the rights of persons with disabilities to participate in society and employment. The quota system in respect of the employment of persons with disabilities, is also in need of clarity and guidelines.

Naggita-Musoke (2017) also referred to the Ugandan Persons with Disabilities Act (2006) and stated that, in its current form, the government is able to evade its responsibilities towards persons with disabilities. Subsequently, the Persons with Disabilities Bill (2014) was drafted, but, owing to concerns of role players, a new version (2016) is being drafted which will also provide for the rights of persons with disabilities to education and health.

4.4.8 Zambia

In Zambia, the Persons with Disability Act 6 of 2012 addresses disability matters and this country ratified the CRPD in February 2010 (Fernandez et al., 2017).

Despite a robust vocational skills training system with in excess of 300 institutions, persons with disabilities are excluded from equal training opportunities owing to negative attitudes, physical barriers and training materials that have not been adapted. Nevertheless, Zambia is in the process of abandoning separate special schools and pursuing more inclusive mainstream education and vocational training options to cater for diverse learning and cultural needs (ILO, 2015).

4.4.9 Zimbabwe

In Zimbabwe, the Disabled Persons Act of 2010 addresses disability matters and this country ratified the CRPD in September 2013 (Fernandez et al., 2017).

Although this Act prohibits any form of discrimination by an employer, it does not require the provision of reasonable accommodation, which contravenes Article 27 of the CRPD (Msipa, 2016). Denial of reasonable accommodation is regarded as discrimination against persons with disabilities (CRPD, 2006).

4.4.10 Progress on compliance of selected African countries with the 2006 Convention on the Rights of Persons with Disabilities (CRPD): An overview

Law reform and legislation are not solutions to disability matters in the absence of implementation strategies and the necessary funding. A case in point is the slowing down of progress in the East African Community (EAC), resulting in a significant adverse impact on the protection of the rights of persons with disabilities (Naggita-Musoke, 2017).

In a similar vein, Tigere and Moyo (2019) found that, despite all the policies of different countries, persons with disabilities in Africa have not yet experienced significant improvements in their lives or income generating endeavours. Many African states have failed to incorporate disability into their national plans and programmes. The inadequate capacity of governments, lack of political will and

constrained funding thwart the implementation of the CRPD (2006) provisions, aimed at facilitating the inclusion of persons with disabilities in society and places of work.

4.4.11 South Africa

Since this study was conducted in South Africa, its policy framework relating to disability matters was described in more detail. This country ratified the CRPD in November 2007 (Fernandez et al., 2017).

South Africa has commenced with the process of domesticating the CRPD (2006) through the audit of existing and the development of new disability legislation under the auspices of the South African Law Reform Commission (SALRC) (L. Pretorius, email communication, November 8, 2019).

The South African Baseline Country Report to the United Nations on the Implementation of the Convention on the Rights of Persons with Disabilities in South Africa (2013) was submitted to the UN in 2014. In August 2018 South Africa appeared before the UN Committee on the Rights of Persons with Disabilities in response to a list of issues applicable to the period April 2012 to March 2018 (L. Pretorius, email communication, November 8, 2019).

The CRPD contains 50 articles aimed at promoting, protecting and ensuring the human rights and fundamental freedoms of persons with disabilities (CRPD, 2006). Article 27 (Work and employment) is in tandem with the aim of this study, but it is acknowledged that certain other facets of disability have a bearing on the employment of persons with disabilities, such as Article 8 (Awareness-raising), Article 9 (Accessibility), Article 20 (Personal mobility) and Article 24 (Education) (CRPD, 2006).

Although in the process of being reviewed in order to meet the criteria set out in the CRPD (2006), the current South African policy framework, which addresses

the rights of persons with disabilities, particularly their inclusion in the open labour market, is presented briefly.

4.4.11.1 Constitution of the Republic of South Africa Act 108 of 1996

Chapter 2 of the Constitution is known as the Bill of Rights of which section 9 (Equality) was deemed pertinent to this research, particularly subsections 3 and 4 which read as follows:

- (3) The state may not unfairly discriminate directly or indirectly against anyone on one or more grounds, including race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language and birth.
- (4) No person may unfairly discriminate directly or indirectly against anyone on one or more grounds in terms of subsection (3). National legislation must be enacted to prevent or prohibit unfair discrimination (RSA, 1996a).

In the context of this study, the Constitution protects the rights of every citizen, with or without a disability, including the right to work and be employed in a career field of their choice. To embrace this right, the Employment Equity Act (1998) was formulated.

4.4.11.2 Employment Equity Act 55 of 1998 (EEA)

The purpose of the EEA, as described in Chapter 1, section 2, is to achieve equity in the workplace through equal opportunity and fair treatment in employment (RSA, 1998).

In Chapter 2, of the EEA, unfair discrimination is prohibited. Section 6 reads as follows:

No person may unfairly discriminate, directly or indirectly, against an employee, in any employment policy or practice, on one or more

grounds, including race, gender, sex, pregnancy, marital status, family responsibility, ethnic or social origin, colour, sexual orientation, age, disability, religion, HIV status, conscience, belief, political opinion, culture, language and birth (RSA, 1998).

The contribution of the EEA (1998) is the promotion of equity in the workplace by eliminating direct and indirect unfair discrimination in any policy or practice relating to employment (Msipa, 2016). Furthermore, this Act creates awareness of the rights of persons with disabilities and obligates employers to take action in order to ensure equal opportunities and fair representation, at all occupational levels, of designated groups, such as persons with disabilities (RSA, 2018a).

4.4.11.3 Employment Equity Amendment Act 47 of 2013 and Employment Equity Amendment Bill (2020).

In section 3, subsection (b), the Employment Equity Amendment Act (2013) provides for an addition to the EEA, namely that a difference in terms and conditions of employment between employees of the same employer performing the same or substantially the same work or work of equal value that is directly or indirectly based on any of the grounds of race, gender, pregnancy, marital status, family responsibility, ethnic or social origin, colour, belief, political opinion, culture, language, birth or any other arbitrary ground, amounts to unfair discrimination.

The Employment Equity Amendment Bill was published in the Government Gazette on 20 July 2020. As contained in section 4, subsection 3, a key aim of this Bill is to institute sectoral employment equity numerical targets to ensure representation of suitably qualified people from designated groups in the workplace (RSA, 2020d). Consequently, the employment rate of persons with disabilities is anticipated to rise.

The Employment Equity Amendment Bill (2020) has been submitted to Parliament for consideration and emanated from inadequate transformation in the employment arena for more than two decades. It is envisaged that an employment equity certificate of compliance with numerical equity targets will become a prerequisite for government contracts (SA News, 2020).

4.4.11.4 Code of Good Practice on the Employment of Persons with Disabilities (2015)

According to section 2, the Code serves as a guide to employers and employees with regard to fair treatment and the promotion of equal opportunities for persons with disabilities. The Code aids understanding of their rights, creates awareness of their potential skills and impels employers to formulate and implement disability policies and programmes. Furthermore, in sections 6 to 12 respectively, the Code also addresses reasonable accommodation, recruitment and selection, interviews, conditional job offers, medical and psychological testing/assessments, placement, training, career advancement, retention and termination of employment (RSA, 2015a).

The contribution of the Code entails the guidance provided to employers in respect of implementing reasonable accommodation for persons with disabilities, removing hindrances and adopting policies and practices that promote accessibility of the workplace. The Code also provides for protection against unfair discrimination throughout the phases of employment, from recruitment through to promotion and termination (Tesemma, 2014).

4.4.11.5 Technical Assistance Guidelines on the Employment of Persons with Disabilities (TAG) (2017)

As an extension to the Code of Good Practice, the TAG facilitates the practical implementation of aspects of the EEA relating to the employment of persons with disabilities. As contained in sections 6 to 12, the TAG addresses the same matters

as the Code, but offers profoundly more detail with practical, step-by-step guidance and appropriate examples to enhance understanding and promote equal treatment of persons with disabilities in the workplace (RSA, 2017).

The contribution of the TAG, as is the case with the Code of Good Practice, lies in the guidance it provides to employers, covering all aspects pertaining to the employment of persons with disabilities. In effect, the TAG is a manual for employers to facilitate inclusion and employment of members of this group.

4.4.11.6 Integrated National Disability Strategy White Paper (INDS) (1997)

As contained in Chapters 1 to 3 of this strategy, the INDS envisioned an integration of disability matters into government development strategies, planning and programmes, combined with extensive public education and building of capacity to realise this vision. The INDS contains policy guidelines and measures to address a wide range of challenges faced by persons with disabilities, including exclusion from employment owing to, inter alia, inadequate education, low skills levels, discrimination by employers, inaccessible public transport and work environments, etc. (RSA, 1997a). As far back as 1997, the INDS already referred to accommodation and assistive devices in the work environment to enable persons with disabilities to execute the essential requirements of a job; alternative work arrangements and hours; and skills development, learnerships and training (RSA, 1997a).

The contribution of the INDS (1997) entailed a paradigm shift from the medical model to the social model of disability and it contains guidelines formulated to advance non-discriminatory programmes (Cole, 2013). The INDS probably ignited awareness of disability and created the path for change. However, the CRPD (2006) addresses the rights of persons with disabilities comprehensively and contains the criteria for the development of domestic policies and legislation relating to disability matters.

4.4.11.7 National Skills Development Strategy 111 (NSDS) (2011)

One of the aims of the NSDS 111 is to provide skills training opportunities for persons with disabilities in order to overcome their barriers to employment. This strategy directs each Sector Education and Training Authority (SETA) in the utilisation of its skills development levies for sectoral programmes and activities, of which a percentage is allocated to learning interventions for persons with disabilities. The focus is on occupationally-directed, relevant qualifications to create synergy between workplace training needs and the formal education system (RSA, 2011).

The National Skills Development Strategy 111 Progress Report 2011 to 2013 (2013) charts the progress made towards meeting the goals of this strategy. This voluminous report describes numerous training programmes and projects undertaken under the auspices of the Department of Higher Education and Training (RSA, 2013b). One of the transformational imperatives for the period entailed the training of learners with disabilities, but it was found that offices and factories had not made progress towards establishing accessible work centres, resulting in them being unable to employ learners with disabilities who had completed their training. Particular obstacles faced during the training projects included a lack of assistive devices, the need for a stipend for unemployed learners and securing host employers where the work experience component of the training programme could be fulfilled. Other challenges were after-hours computer access and inadequate English proficiency (RSA, 2013b).

The contribution of the NSDS III (2011) would naturally encompass increased access of persons with disabilities to occupation-directed programmes, skills and training opportunities (RSA, 2018a) that are aligned with the employment needs of employers in different sectors (RSA, 2011), thereby increasing their receptivity to hiring suitably trained persons with disabilities. The need for education and skills training to enhance the employment opportunities of persons with disabilities cannot be emphasised enough and features prominently in the literature.

4.4.11.8 *White Paper on the Rights of Persons with Disabilities (WPRPD) (2015)*

The WPRPD represents South Africa's new disability rights policy and was approved by Cabinet on 9 December 2015 (UN Committee on the Rights of Persons with Disabilities, 2018). The vision of the WPRPD reads as follows:

South Africa – A free and just society inclusive of all persons with disabilities as equal citizens (WPRPD, 2015d, p. 42).

The WPRPD (2015) serves to update the INDS (1997) and integrate the obligations contained in the CRPD and in the Continental Plan of Action for the African Decade of Persons with Disabilities (2013) with relevant South African policies and legislation. The aim is to create equal rights in a barrier-free, fair society that enables inclusion of persons with disabilities. The WPRPD (2015) rests on nine pillars of which the fifth, "Reducing Economic Vulnerability and Releasing Human Capital", relates to this study. The economic right of persons with disabilities to have access to decent work and employment opportunities can only come to fruition through their involvement in the formulation, implementation and monitoring of economic policies and programmes. By implication, employers need to provide reasonable accommodation and an accessible built environment (WPRPD, 2015d).

The contributions of the WPRPD (2015) encompass the merging of requirements of the CRPD, the Continental Plan of Action for the African Decade of Persons with Disabilities, the South African National Development Plan and South African disability-related legislation and policies; and mainstreaming the rights of persons with disabilities (WPRPD, 2015). The WPRPD (2015) serves as an update of the INDS (1997) (RSA, 2018a). The WPRPD (2015) can be regarded as a major breakthrough in creating awareness and promoting the rights of persons with disabilities, including their right to work.

4.4.11.9 Employment Services Act 4 of 2014

As described in Chapters 1, 3 and 6 of this Act, respectively, the purpose of the Employment Services Act (2014) is to promote employment, namely to improve the employment prospects of job seekers, especially vulnerable ones, through work schemes and other measures, as well as to regulate private employment agencies. This Act also established supported employment enterprises, previously known as sheltered places of employment, to employ persons with disabilities (RSA, 2014b).

The contributions of the Employment Services Act (2014) include the creation of work schemes for persons with disabilities and the regulation of employment agencies. In this study, the perspectives of certain employment agencies that specialise in the placement of persons with disabilities, were canvassed. Employers would likely be more receptive to employing persons with disabilities who have been located and screened by regulated employment agencies.

4.4.11.10 Promotion of Equality and Prevention of Unfair Discrimination Act 4 of 2000 (PEPUDA)

PEPUDA is the overarching law that addresses various forms of discrimination. Chapter 2, section 9 of this Act contains the following stipulation:

Prohibition of unfair discrimination on the grounds of disability...Failing to eliminate obstacles that unfairly limit or restrict persons with disabilities from enjoying equal opportunities or failing to take steps to reasonably accommodate the needs of such persons (RSA, 2000).

The contribution of this Act lies in its prohibition of unfair discrimination by any entity or party against another. The failure to remove obstacles which unfairly curtail the opportunities of persons with disabilities or the denial of their right to reasonable accommodation constitutes unfair discrimination, particularly in the workplace (RSA, 2018a).

4.4.11.11 The Labour Relations Act 66 of 1995 (LRA)

According to Chapter 1, section 1 of this Act, its purpose is to promote economic development, social justice, labour peace and fairness in the workplace. Apart from regulating a unionised work environment, the Act also addresses unfair dismissals and unfair labour practices. In the context of this research, the applicable clause contained in schedule 8, section 11, stipulates the following:

Any person determining whether a dismissal arising from ill health or injury is unfair should consider –

- (a) whether or not the employee is capable of performing the work; and
- (b) if the employee is not capable –
 - (i) the extent to which the employee is able to perform the work;
 - (ii) the extent to which the employee's work circumstances might be adapted to accommodate disability, or, where this is not possible, the extent to which the employee's duties might be adapted; and
 - (iii) the availability of any suitable alternative work (RSA, 1995).

In relation to this study, the contribution of the LRA (1995) in respect of persons with disabilities entails that a person from this group should be enabled to execute the most important tasks of the job, given the appropriate accommodation and/or assistive devices. As purported by Nxumalo (2014), the LRA protects an employee with a disability against unfair dismissal on the basis of his or her disability.

4.4.11.12 Strategic Policy Framework on Disability for the Post-school Education and Training System

In 2018, the Department of Higher Education and Training published the Strategic Policy Framework on Disability for the Post-school Education and Training System to guide and facilitate improved access to and equal inclusion of persons with disabilities at post-school education and training institutions. This strategy also serves as an instrument to monitor and evaluate compliance with mainstreaming

disability requirements at all learning institutions and programmes, since persons with disabilities have an equal right to education as their able-bodied peers. Key aspects of this strategy entail standardised, enabling learning environments, inclusive of accessible teaching, learning, recreation and support. The latter includes universal access principles for reasonable accommodation and assistive devices (RSA, 2018a).

The contribution of this strategy in relation to this research is that persons with physical disabilities will enjoy access to learning institutions and acquire qualifications which will enable them to secure jobs, lead productive lives and contribute to the economy.

4.4.11.13 Policy on Reasonable Accommodation and Assistive Devices for Employees with Disabilities in the Public Service

The Department of Public Service and Administration developed this policy, which was approved in 2014 to, inter alia, establish uniform standards for furnishing reasonable accommodation and assistive devices required to accelerate the inclusion of persons with disabilities in the public service. The accommodation measures and assistive technology needed would depend on the essential functions of the particular job; the type of barriers which exist in the workplace; and the nature of the disability in question. Furthermore, such reasonable accommodation should enable full and equal participation in workplace activities (RSA, 2014a).

This policy was preceded by the Handbook on Reasonable Accommodation for [People] Persons with Disabilities in the Public Service (2007), which described the concept and application of reasonable accommodation as well as features of physical and communication environments which culminate in accessibility challenges (RSA, 2007).

Cole (2013) declared that non-compliance with building regulations in respect of accessibility should be enforced through fines and non-approval of submitted plans.

The contribution of this policy encompasses facilitation of reasonable accommodation for and supply of assistive technology to employees with disabilities, enabling them to perform their jobs and to participate in work-related activities (RSA, 2018a), in line with their right to work and be treated with dignity.

4.4.11.14 JobACCESS Strategic Framework

The Department of Public Service and Administration drafted a consultation document in 2006, titled JobACCESS 2006 to 2010: One Strategy-Different Paths, which focused on the recruitment and retention of persons with disabilities by promoting their full participation and equality in the public service and, in the process, removing barriers and providing action plans to enable their access to the environment, communication and information technology. Furthermore, the employability of persons with disabilities would be enhanced through, inter alia, the improvement of their skills and the attitudes of able-bodied persons; creation of learnerships; and forging partnerships with service providers and disabled persons' organisations. State departments were expected to meet the target of two per cent of staff complement to comprise persons with disabilities (RSA, 2006).

The JobACCESS Strategic Framework on the Recruitment, Employment and Retention of Persons with Disabilities in the Public Service (Part 1) (2008a), and the Public Service JobACCESS Implementation Guidelines and Plan on the Recruitment, Employment and Retention of Persons with Disabilities (Part 2) (2008b) were published by the Department of Public Service and Administration (RSA, 2008a; 2008b).

The generic implementation plan of the JobACCESS Strategy comprises strategic objectives in conjunction with the activities required to achieve those objectives,

timelines, performance indicators and intended outcomes. In essence, the strategic objectives entail developing the capacity and employability of persons with disabilities in the public service through trainee programmes, learnerships, mentorships and internships. Concomitantly, the capacity of line managers and disability focal persons needs to be developed to ensure the mainstreaming of disability in all public service departments. The reviewed deadline for meeting the two per cent target of staff complement to comprise persons with disabilities, was 31 March 2010 (RSA, 2008b). One reason for not meeting the target was ascribed to persons with disabilities not applying for advertised posts (RSA, 2008b). As reported in Chapter 1, the two per cent target (RSA, 2006) had not yet been met by 2019, according to the CEE (RSA, 2019).

The contribution of the JobACCESS Strategies comprises the commitment made by the public service to skills development and environmental accessibility. These are recurrent themes in the literature pertaining to the strategies required to enhance the employability and employment rate of persons with disabilities. Furthermore, line managers need knowledge and incentives to employ and develop persons with disabilities. In this study, these issues were raised with the participants, in line with the research aims.

4.5 POLICY FRAMEWORKS: AN OVERVIEW

In order to gauge the status and impact of public policy and other initiatives pertaining to the employment of persons with disabilities, related research is presented.

African countries such as Ghana, Sudan, Uganda, Kenya and the Democratic Republic of Congo have made advancements in respect of disability-related policies. However, disability-related legislation is in its infancy in Africa, which also inhibits the formulation of disability policies in places of work (Majola & Dhunpath, 2016).

In an appraisal of the original Code of Good Practice on the Employment of Persons with Disabilities, Ngwena, and Pretorius (2003) surmised that the Code had provided a foundation upon which employers, employees and associated organisations could develop and implement policies and programmes for persons with disabilities in the workplace. However, more comprehensive guidance was required. Also the concept of “essential functions” of the job warranted clarification with examples for the design of job descriptions to facilitate the employment of persons with disabilities.

Dube (2005) contended that the favourable policy environment in South Africa presented new opportunities for persons with disabilities. The Employment Equity Act 55 of 1998 enhanced awareness of their needs, but its implementation had a marginal impact on the majority of persons with disabilities. Schneider (2006) identified deficiencies in current disability policies, particularly the need to describe environmental factors and their role as either facilitators or barriers, in the context of universal design. The latter was defined in Chapter 1.

According to Howell et al. (2006), it is only the disability movement that can enhance understanding of what the social model entails and change conditions on the ground. The disability rights movement has had a profound impact on new policy frameworks in South Africa since 1994. However, some people in the disability rights movement felt that disability policies had not impacted sufficiently on issues such as accessible public transport, housing and health services. Christianson (2012) indicated that whether the constitutional and labour law provisions have improved the lives of persons with disabilities in South African workplaces, is not a simple matter. The rights of equality, dignity and freedom have served to curtail discrimination in the workplace, but there is only a small percentage of employees with disabilities who are in employment and benefiting from these statutory protections, while policies such as the Integrated National Disability Strategy appear to have made little difference.

The Centre for Human Rights at the University of Pretoria was tasked with analysing the gap in South African disability legislation and policy. It was concluded that the socioeconomic environment must become accessible to persons with disabilities and not continue to be disabling. In order to move forward, laws are needed to promote disability rights and discrimination against persons with disabilities should be criminalised (Ngwena, Grobbelaar-du Plessis, Njau, & Mgijima-Konopi, n.d.).

In a review of the dynamics of disability in South Africa from 1994 to 2014, the Department of Planning, Monitoring and Evaluation (RSA, 2014) found that, in the context of employment, persistent discriminatory attitudes towards persons with disabilities, inaccessible public transportation and buildings, inaccessible communication and information, combined with inadequate enforcement of the Employment Equity Act, have impeded improvement in the employment rate of persons with disabilities. Furthermore, without a thorough understanding of policies on universal design and reasonable accommodation, the rights of persons with disabilities cannot come to fruition (RSA, 2014c).

Majola and Dhunpath (2016) found that provincial departments in KwaZulu-Natal had neither adopted disability-related employment policies nor utilised the Code of Good Practice or the Technical Assistance Guidelines connected to the Employment Equity Act. Without policies on the employment of persons with disabilities, the majority of this group will remain excluded from gainful employment and their constitutional rights (Majola & Dhunpath, 2016).

In 2017, a follow-up communication occurred with L. Pretorius, as referred to in Chapter 1, in which the researcher enquired about progress made on the WPRPD (2015) and the envisaged amended or stand-alone disability legislation. She responded as follows:

The WPRPD is a policy which is a precursor to domestication of the CRPD. The legal process will be the domestication of the CRPD through national legislation as required by the Constitution. A preliminary audit of existing

legislation against CRPD compliance was undertaken by the University of Pretoria Centre for Human Rights. A consultative workshop then followed. They submitted four options and the South African Law Reform Commission (SALRC) is being consulted on the preferred option. One of the options is a stand-alone piece of disability legislation. The challenge here is juxtaposing it against other cross-cutting legislation such as the Promotion of Equality and Prevention of Unfair Discrimination Act (2000). Another option is to take article by article and amend existing legislation through one law. The challenge here is where gaps in the law exist, e.g. disability services. A third option is to deal with most of the CRPD obligations through regulations attached to existing sectoral and cross-cutting laws. The fourth option is a combination of the above. If the normal route of law-making is followed, it could take up to seven years to finalise legislation (Email communication, March 22, 2017).

The most recent developments surrounding the South African Baseline Country Report (2013) were conveyed to the researcher by L. Pretorius and entail the following:

South Africa appeared before the UN Committee on the Rights of Persons with Disabilities in August 2018 where the 2013 Baseline Country Report was considered. The country also had to respond to a list of issues and the Concluding Observations were issued in October 2018. South Africa reports under the simplified reporting process which requires periodic reports only and the next Periodic Country Report, will therefore be a combined 2nd, 3rd and 4th report, due in June 2022. We have started the domestication process for the development of national disability law, led by the SALRC (Email communication, November 8, 2019).

Apart from the WPRPD (2015), a number of sector policies have been adopted since submission of the South African Baseline Country Report (2013), such as the Policy on Screening, Identification, Assessment and Support in Basic Education (2014) for learners with disabilities; the Strategic Policy Framework on Disability for the Post-school Education and Training System (2018); the Policy on

Reasonable Accommodation and Assistive Devices for Employees with Disabilities in the Public Service (2014); the Employment Equity Amendment Act (2013) and Bill (2020); and the revised Technical Assistance Guidelines on the Employment of Persons with Disabilities (2017). A National Framework on Universal Access and Design is before the South African Cabinet for consideration; and accountability for providing assistive devices is being investigated. In South Africa, all national and provincial government departments report annually on progress made with the JobAccess Implementation Guidelines and Plan on the Recruitment, Employment and Retention of Persons with Disabilities (2008). Such progress is linked to their adherence to disability equity targets and annual performance ratings (UN Committee on the Rights of Persons with Disabilities, 2018).

Numerous other topics on the list of issues and associated policies, unrelated to employment, were explained to the UN Committee on the Rights of Persons with Disabilities (2018).

In line with the research aims of this study, many of the aspects covered by legislation and policies relating to the employment of persons with disabilities were presented to the sample of employers in order to gauge their receptivity to hiring persons with disabilities and to determine both their concerns and suggestions in this regard. The data collected could help explain, inter alia, the causes of exclusion of persons with disabilities from the workplace; employers' knowledge of their rights; employers' awareness of disability matters; and the interventions they felt could motivate organisations to employ persons with disabilities. Following finalisation of South African disability-related legislation, aligned with the CRPD (2006), the impact of such will become more evident.

4.6 SOCIETAL, INTERNATIONAL, NATIONAL AND ORGANISATIONAL INTERVENTIONS

Existing policy frameworks were discussed in the previous sections, while interventions emanating from certain international and national policies and

strategies, as well as those proposed in the extant literature, are described in this section. In the context of the research aims of this study, mainly interventions devised to promote inclusion of persons with disabilities in the workplace are presented.

4.6.1 Societal interventions

Societal interventions include creating awareness of the challenges faced by persons with disabilities. Apart from education of the public, awareness of, information about and contact with persons with disabilities are central to understanding their situation and how to interact with them (Neuman, 2013). Such exposure should commence at student level (Barr & Bracchitta, 2008). Furthermore, the media has a role to play by portraying persons with disabilities in a positive light (Balcazar, 2000), as opposed to negative images that entrench stigma and stereotypes (Draper, Reid, & McMahon, 2011).

Universal access would permeate all levels of society, including the workplace. According to Schneider (2006), a new strategy to facilitate inclusion entails universal design to make healthcare systems, assistive technology and community activities more accessible. Universal design was defined in Chapter 1.

4.6.2 International interventions

As discussed earlier in this chapter, the CRPD (2006) obligates member states of the United Nations who have ratified the Convention, to develop policies and legislation to domesticate the stipulations contained in the Convention. The aim is to protect and promote the rights of persons with disabilities, on an equal basis with others. Such rights include fair and favourable work conditions, equal opportunities, equal remuneration for work of equal value, placement services, vocational training, self-employment, entrepreneurship and career advancement in the labour market (Tesemma, 2014). The CRPD stipulates the rights of persons with disabilities which could include job training programmes, hiring preferences,

countering social stereotypes and overcoming barriers in respect of health care, housing, education and transportation (Hill & Blanck, 2010).

The interventions proposed in the Continental Plan of Action for the African Decade of Persons with Disabilities 2010 to 2019 (African Union Commission, 2013) and the Protocol to the African Charter on Human and People's Rights on the Rights of Persons with Disabilities in Africa (African Union Commission, 2018) are, for the most part, comparable with the content of the articles contained in the CRPD (2006).

The ILO has published a copious amount of research and suggested interventions over the years (ILO, 2020). One such intervention is titled Promoting Rights and Opportunities for People with Disabilities in Employment through Legislation (PROPEL) (ILO, 2015), as referred to in Chapter 2.

4.6.3 National interventions

The public policy frameworks relating to disability of certain African countries, including South Africa, were divulged in the previous sections of this chapter. The focus here is to present interventions which should be implemented on a national basis, as proposed in the extant literature, as well as by South African institutions.

4.6.3.1 Public policy

One comprehensive disability policy should be formulated (Osawa & Yeo, 2006), while the South African Household Surveys should incorporate disability by type and severity (Mitra, 2008). Also, government policy should aim to raise awareness of disability matters, share information, improve support for employers and facilitate learning and best practices in all organisations (Waterhouse et al., 2010).

Apart from international conventions and treaties, domestic legislation is a powerful tool to facilitate social change, also in the case of persons with disabilities (RSA,

2018a). The WPRPD (2015), as discussed earlier in this chapter, consists of nine pillars, each with an outcome indicator, which lays the foundation for legislation that incorporates the obligations proposed by the CRPD (2006) (RSA, 2015d).

4.6.3.2 Education and training

According to Osawa and Yeo (2006), government should enable persons with disabilities to obtain a college education by providing an education grant, a tax credit for special equipment, transportation and a tax credit to remodel their homes for studying and working. Scott-Parker and Zadek (2001) asserted that specific emphasis should be placed on the education of young persons with disabilities, while government should create a benefit system and assess the impact of disability-related policies.

Richards (2002) recommended that generic business skills should be incorporated in vocational programmes while, as far back as 1994, Braddock and Bachelder advised that government should establish a research and training centre in conjunction with colleges to offer training in communication skills, interviewing techniques, problem solving, résumé writing and self-presentation. A well-constructed résumé should contain examples of job-related obstacles that were overcome by the job applicant with a disability (Draper, Reid, & McMahon, 2011). Blanck et al. (2007) suggested online training and Lengnik-Hall et al. (2005) purported that the information technology field presents much promise for persons with disabilities. Hernandez et al. (2007) posited that English proficiency is crucial to secure employment. Also, persons with disabilities should be developed as entrepreneurs. In a similar vein, rehabilitative programmes need to include counselling, restoration services, vocational training and placement services for persons with disabilities, while promoting the use of accommodation (Schriner, 2001).

The Strategic Policy Framework on Disability for the Post-school Education and Training System (2018) contains a number of interventions pertaining to post-

school education and training institutions, as well as students and staff with disabilities. These include, inter alia, access to infrastructure, assistive devices, equipment and accommodation, aligned with universal access principles (RSA, 2018a). The NDP (RSA, 2015c) contains proposals that cover several economic variables, including an expanded skills base for persons with disabilities that meets the present skills development target of four per cent, as per the NSDS III (2011), and 15 per cent by 2030.

4.6.3.3 Economic incentives

Tax-related credits and deductions should be provided to employers for hiring persons with disabilities and to cover the expenses of accommodation and assistive technology (Dixon et al., 2003; Fraser et al., 2010). Burkhauser and Stapleton (2004) suggested policy changes to reduce the cost of employer accommodation through subsidies and/or technical support such as providing better information about appropriate accommodation. Bezuidenhout et al. (2008) referred to rewards for compliance and punitive measures for non-compliance with employment equity targets.

4.6.3.4 Quotas

Many countries have specific measures, such as quotas, aimed at increasing the employment rate of persons with disabilities. In South Africa, the NSDS III (2011), through the Sectoral Education and Training Authorities (SETAs), requires the allocation of four per cent of traineeships to persons with disabilities. Furthermore, public service departments and state bodies have to ensure that at least two per cent of their workforce comprises persons with disabilities (Tesemma, 2014).

However, meeting such targets requires rigorous monitoring and adequate guidelines in order for policies relating to disability to be implemented (Nxumalo, 2014). Fines imposed for non-compliance with quotas could be utilised for campaigns aiming to increase the employment rate of persons with disabilities

(WHO, 2011). The proposed Employment Equity Amendment Bill (2020) prescribes that sector-specific employment equity numerical targets should be implemented and enforced (RSA, 2020d). According to Gida and Orllepp (2007), compliance with quotas should be a condition to secure a government tender.

4.6.3.5 Transportation

Inadequate public transport in respect of persons with disabilities is a recurrent theme in the literature and ties in with the concept of universal design alluded to in chapter 1. In reporting to the UN on progress made since submission of the South African Baseline Country Report (2013), it was indicated that a set of universal design standards had been initiated to improve access to public transport for persons with disabilities (UN Committee on the Rights of Persons with Disabilities, 2018).

4.6.4 Organisational interventions

4.6.4.1 Disability policy

In the context of organisations, several possible interventions emanated from researchers' ideas. Companies with formal disability policies harboured more positive attitudes towards persons with disabilities (Brennan et al., 2003) and would be more likely to hire them (Brostrand, 2006) than those without such policies.

Diversity, inclusive of disability, needs to be a core organisational value because it cements interpersonal relationships and counters stigma (Waterhouse et al., 2010). Diversity policies should be drafted in consultation with persons with disabilities, since they understand their needs, and also aligned with the Code of Good Practice on the Employment of Persons with Disabilities (Gida & Orllepp, 2007). Furthermore, senior management should be committed to employment diversification (Brostrand, 2006; Gida & Orllepp, 2007) which, in turn, leads to acceptance and inclusion of persons with disabilities, while also enhancing

company image (Hernandez et al., 2008) and branding as an employer of choice (Gida & Ortlepp, 2007).

Proactive organisations are less vulnerable to future diversity predicaments because their leadership actively recruits persons with disabilities for their skills, acknowledges their different needs and modifies organisational practices accordingly (Wooten & James, 2005). Company policy should mirror the willingness to work with disability organisations, rehabilitation specialists, high schools and colleges to offer internships to persons with disabilities. In the process, their job skills and the employer's knowledge of their abilities will improve, while expanding the organisation's pool of qualified job candidates with disabilities (Schur et al., 2005). An organisation could apply supplier diversity policies to those companies that form part of its supply chain (Waterhouse et al., 2010). According to Gida and Ortlepp (2007), a company policy on disability should include a definition of disability and classification of disabilities; recruitment strategies; liaison with disability organisations; procedures to manage attitudes towards disability as a form of diversity in the organisation; modification of policies and practices to exclude discrimination in both practice and intent; disability equity targets linked to the performance outcomes of line managers; monitoring processes with accountability and timelines; sensitisation of all staff members on behaviour around persons with disabilities; and reasonable accommodation interventions.

4.6.4.2 Recruitment practices

In addition to conventional methods, skilled persons with disabilities can be recruited from other sources such as advertising vacant positions to professional and community networks, student associations, college vocational and disability services, vocational rehabilitation associations and other relevant state agencies, while revealing the willingness to provide reasonable accommodation and accessible employment options (Burton Blatt Institute, 2011). Apart from disability specialist placement agencies, persons with disabilities could be recruited from job fairs that cater for underserved populations (Ball et al., 2005) and at national

conventions held by disability organisations (McFarlin et al., 1991). Job application forms should also be available in different formats (Burton Blatt Institute, 2011) and interviewing locations should be accessible (Dixon et al., 2003).

According to Domzal et al. (2008), in the USA, the Job Accommodation Network (JAN) is a service provided by the Office of Disability Employment Policy (ODEP), which facilitates the employment and retention of workers with disabilities by supplying information on job accommodation, entrepreneurship, etc. The Employer Assistance and Recruiting Network (EARN) is also a service provided by ODEP that assists employers with locating and recruiting qualified workers with disabilities. Domzal et al. (2008) suggested placing job postings at Independent Living Centres, employment centres, college and university career centres; utilising disability advocacy organisations' and related publications' websites; and establishing internship and mentoring programmes.

The human resources practitioner responsible for recruitment should be trained in working with persons with disabilities, have knowledge of where to recruit qualified individuals, remain abreast of the relevant legislation and be informed about accommodation and assistive technology (Bruyère et al., 2004). Job analysis should be performed to identify the essential functions of the job in order to match these to the functional capacities of the potential employee with a disability to enable him or her to perform the job safely and efficiently (Langton & Ramseur, 2001). According to Kaye et al. (2011), trial periods could serve to assess the worker's capabilities.

In South Africa, guidelines on the recruitment of persons with disabilities, from the job advertisement to final selection, as well as guidelines on their training and career advancement, are contained in the Code of Good Practice (2015) and the TAG (2017), as described earlier in this chapter (RSA, 2015a; RSA, 2017). Job advertisements with wording such as "diverse" and "inclusive" should invite persons with disabilities to apply. Creating an accessible work environment also entails job application forms, other material and websites in accessible formats

(SAHRC, 2017). The JobACCESS Implementation Guidelines and Plan on the Recruitment, Employment and Retention of Persons with Disabilities (RSA, 2008b) was also discussed earlier in this chapter. The Department of Public Service and Administration advertises vacancies in the public service on its website.

4.6.4.3 Forms of incentives to meet employment equity targets

Domzal et al. (2008) opined that employers would be receptive to employing persons with disabilities if they were convinced of such matters as satisfactory job performance, attendance and retention; increased company productivity; benefit to the company's profitability; benefit to other companies in the industry; statistics or research that support the above; testimonials from human resources managers, senior executives and line managers; and if concerns about costs of accommodation are addressed. Employers could be further encouraged by tax credits, tax incentives and on-site consultation or technical assistance provided by experts.

Gilbride et al. (2003) suggested that managers' bonuses should be coupled with meeting diversity, inclusive of disability, targets. According to Waterhouse et al. (2010), performance indicators for individuals and groups should be connected to diversity achievements. Government could fund or subsidise modifications and accommodation needed in the workplace (WHO, 2011).

In South Africa, the costs of certain learnerships and bursaries offered to persons with disabilities to acquire relevant skills can be claimed from the National Skills Fund (Gida & Ortlepp, 2007).

4.6.4.4 Accommodation and assistive technology

The perspectives of the cost of accommodation and assistive technology were discussed in Chapter 2. However, accommodation of persons with disabilities and the provision of assistive devices are interventions to enable the person with a

disability to perform the essential functions of the job. The denial of such is regarded as unfair discrimination, as stipulated in the TAG (RSA, 2017).

Interventions could include flexible work hours, rotation and multi-skilling of other employees to stand in when absences occur (Schur, 2003); job design and redesign including adapting tools or equipment (Waterhouse et al., 2010); job coaching where a coach is appointed to ease the person with a disability into the role (Luecking, 2008); the so-called “buddy system”, whereby an able-bodied employee assists the employee with a disability (McFarlin et al., 1991); or where the job content enables the person with a disability to work from home or at an off-site location in jobs such as telephone work, typing, data capturing, customer follow-up service, programming, accounting, invoicing, claims processing, editing, research and report writing (Anderson, Bricout, & West, 2001).

Gold et al. (2012) indicated that accommodation and/or assistive devices must result in improved job performance and be re-evaluated at regular intervals to assess whether to be retained, modified or discontinued. Co-workers should be included in the allocation of accommodation to ensure their acceptance and support of the relevant person with a disability. Persons with disabilities need to be knowledgeable about the accommodation and assistive technology they require (Bricout & Bentley, 2000). Furthermore, employers should support employees with disabilities who need social networks for peer mentoring, support, information sharing or advice, or the like (Burton Blatt Institute, 2011).

4.6.4.5 Knowledge about disability matters

A voluminous body of literature has suggested that the lack of factual information about, exposure to and contact with persons with disabilities creates the breeding ground for prejudice and attitudinal barriers in society and in the workplace.

Peck and Kirkbride (2001) opined that an entire company’s staff should undergo training in disability awareness, including the relevant laws, physical accessibility,

job restructuring and co-worker support. Employers need to understand the types of disabilities and the anticipated employment obstacles to make informed, proactive decisions (Waterhouse et al., 2010).

Employers and employees need to be sensitised to disability matters to combat stereotypes through seminars, newsletters and in-house magazines (Braddock & Bachelder, 1994; Brostrand, 2006), diversity workshops (Gida & Ortlepp, 2007), role-plays and contact with persons with disabilities (Daruwalla & Darcy, 2005), direct interaction combined with information about disability (Krahé & Altwasser, 2006) and video recordings of persons with disabilities at work (Hunt & Hunt, 2004). The management and staff of an organisation must receive awareness training about disability matters and take measures to eliminate stigma and stereotypes in the workplace (SAHRC, 2015).

Resentment towards persons with disabilities on the part of co-workers could be decreased by using educational programmes to allay their fears about various disabilities, eliminating competitive reward systems and ensuring that all employees are treated fairly. Co-workers should not be expected to assume added responsibilities when persons with disabilities are hired (Stone & Colella, 1996). According to Ren et al. (2008), observing a person with a disability performing a job well could counter negative stereotypes. Supervisors require training in the performance management of persons with disabilities (Gida & Ortlepp, 2007). Contact through discussions, lectures, game sessions and outings combined with information such as documentary films and reference books could effectively change attitudes (Garcia, Diaz, & Rodriguez, 2009).

Provisions of collective bargaining agreements with trade unions should include the accommodation of workers and job applicants with disabilities. Furthermore, contact between employees with and without disabilities in informal and social settings, apart from work activities, would banish stereotypes and forge stronger working relationships (Schur et al., 2005).

4.6.4.6 Employer networks

Employer networks can be regarded as an intervention since they serve to share resources, strategies and experiences in respect of challenges with the employment of persons with disabilities, such as the Employers Network on Disability in Australia (Waterhouse et al., 2010) and the Business Leadership Network in the USA (Peck & Kirkbride, 2001). The latter is an employer-led coalition that promotes opportunities that benefit businesses and persons with disabilities (Van Lieshout, 2001). Networking could also occur with the disability sector (Gida & Ortlepp, 2007) and with disability committees in order to expand employment opportunities for persons with disabilities (Hernandez et al., 2012).

Organisations that are willing to engage with persons with disabilities would gain access to a pool of skills and talents; the support of persons with disabilities as consumers, shareholders and voters; and the support of their relatives, colleagues, friends and carers (Scott-Parker & Zadek, 2001). Employers should establish partnerships with employment agencies, educational institutions and skills training service providers to include persons with disabilities in a skilled workforce (WHO, 2011).

4.6.4.7 Service provider interventions

Interventions to increase the employment rate of persons with disabilities could be facilitated by both vocational rehabilitation practitioners and disability placement agencies. Partnerships with businesses need to be formed and services offered that meet the needs of employers (Anderson, 2001).

In the context of the employment of persons with disabilities, the role of vocational rehabilitation practitioners could entail the following:

- (1) Such practitioners could improve the job-seeking skills, self-initiated job searches and persistence of persons with disabilities, despite repeated failures (Barlow et al., 2008).
- (2) They could apply their knowledge of appropriate accommodation and support, to facilitate effective hiring practices. In addition, they should assess the prospective employer's readiness to make appropriate accommodation (Bricout & Bentley, 2000).
- (3) It would be useful to compile a customised presentation portfolio with photographs and text, which could be presented to the prospective employer (Mast, Sweeney, & West, 2001). In a similar vein, Eaton, Condon and Mast (2001) proposed a vocational profile of a person with a disability containing their job task preferences, conditions of employment and potential contribution to the workplace, as well as the required assistive technology. The vocational profile could then be matched to employers' needs.
- (4) Chan et al. (2010) also described the role of rehabilitation professionals pertaining to job development efforts which should identify occupations in demand in the labour market and train persons with disabilities accordingly. Furthermore, consultations on accommodation, workplace support and training of supervisors and co-workers should occur. Persons with disabilities should be trained to discuss their disabilities, accommodation needs and performance challenges during job interviews.

Disability employment agencies could play a profound role in placing persons with disabilities in jobs. Chan, Cheing, Chan, Rosenthal, and Chronister (2006) found that job placement services could enhance competitive employment outcomes since they match persons with disabilities to specific employers and jobs, in an effort to improve the probability of securing a job. Counsellor-centred job placement may be necessary to address employers' stereotypes. Graffam et al. (2002) asserted that the concept of job matching should be expanded to matching the person with the conditions and needs of the workplace. Developing and maintaining a partnership with employers commences with sensitivity to the beliefs, values, attitudes and needs of the employing organisation.

The CRPD (2006) is anticipated to have a profound influence on societal, international, national and organisational approaches to disability management, while changing perspectives about persons with disabilities. Member states of the UN are obligated to design new or to review their existing disability policies and legislation, in accordance with the stipulations of the CRPD (2006). Domestic policy would cascade down to organisations and oblige employers to adopt and implement disability-related policies and programmes to expedite the inclusion of persons with disabilities in their workforce.

4.7 CHAPTER SUMMARY

In this chapter, the mechanisms designed to promote workplace inclusion of persons with disabilities were presented. Related global policy frameworks and those pertaining to the African continent, African countries and South Africa were described, followed by an overview of the status and impact of public policy and other initiatives which endeavour to improve the employment rate of persons with disabilities. Societal, international, national and organisational interventions, devised to promote the inclusion of persons with disabilities, were presented. This chapter concludes the literature review in respect of the causes of exclusion of persons with disabilities from employment and the mechanisms that could promote their inclusion in the workplace.

The next chapter outlines the research design and methodology applied in this study to address the problem statement and research aims.

CHAPTER 5

RESEARCH DESIGN AND METHODOLOGY

In this chapter, research design and methodology are conceptualised, both from a broad theoretical perspective and in relation to this study. Mixed methods research, quantitative and qualitative research approaches are all described separately, each in terms of their origin, definition, description, characteristics and types. The data collection methods, data analysis techniques and procedures relating to the integration and interpretation of results and findings applicable to this study, are presented. The study focused on the causes of exclusion of persons with physical disabilities from employment from the perspective of a sample of formal private sector employers and a sample of persons with physical disabilities, respectively. Therefore, the adoption of a convergent mixed methods research strategy was prudent with employers' responses to an online customised survey questionnaire forming the quantitative strand and the responses of persons with physical disabilities to structured telephonic interview questions forming the qualitative strand.

5.1 INTRODUCTION

The research aims of this study comprised the following:

Research aim 1

To adopt a convergent mixed methods research approach in order to ascertain the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.

Research aim 2

To determine the statistically significant differences that exist between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.

Research aim 3

To uncover the constructs which underlie the causes of exclusion of persons with physical disabilities from employment.

Research aim 4

To identify interventions to assuage the exclusion of persons with physical disabilities from employment.

Creswell (2009) described research design as the plan for the execution of research, which involves the intersection of philosophy, strategies of enquiry and the specific methods adopted. According to Durrheim (1999a), planned research is “systematic observation”, guided by concrete research questions and a research design. As explained by Leedy and Ormrod (2010), research originates with a question or problem; requires a clear goal; needs a specific plan; divides the overarching problem into more manageable problems; pursues a specific research problem, question or hypothesis; acknowledges certain assumptions and necessitates the systematic collection, analysis and interpretation of data to resolve the problem. Leedy and Ormrod (2010) refer to two assumptions underlying almost all research, namely the phenomenon under investigation is “somewhat” predictable, thus not comprising totally random events; and certain cause-and-effect relationships can be found in the phenomenon.

Within the positivist paradigm, quantitative strategies involve methods that use objective measurement devices to investigate causal relationships between

abstract variables, by extracting the essence of phenomena from the context in which they are embedded. Conclusions are drawn from statistical data analysis. The quality of the data gathered and the results obtained are judged in terms of reliability (repeatability), validity (truth value) and generalisability (scope of applicability to other settings). Within qualitative paradigms, such as interpretive hermeneutics, research approaches and methodology focus on studying systems nested in contexts to find and utilise the rich contextual depth that affects the phenomena. Patterns of human behaviour with situation-bound meaning and many forms of causality are studied to advance understanding (McGrath & Johnson, 2003). According to Kelliher (2005), the underlying assumption of qualitative research entails placing people in their social contexts to understand their perceptions of their reality in terms of activities and circumstances, implying cause and effect.

The theoretical paradigms adopted in this study entailed those of pragmatism and hermeneutics, while the methodological paradigm encompassed that of mixed methods research. Furthermore, against the backdrop of the Afrocentric paradigm, studies from developing countries were included in the literature review. Emanating from the research aims of this study, a convergent mixed methods research strategy was implemented. The data generated by the quantitative strand required statistical analysis while the data forthcoming from the qualitative strand called for thematic content analysis. The research process applied in this study was depicted in Figure 1.2 as presented in Chapter 1.

5.1.1 The pragmatic paradigm

Pragmatism emanates from actions, situations and consequences where research problems and questions, not methods, are at the fore. Mixed methods research, where both quantitative and qualitative data are collected, can facilitate the best understanding of the issue being researched (Creswell & Creswell, 2018). The pragmatic paradigm seeks to obtain practical solutions to real-world problems, such as the exclusion of persons with physical disabilities from the workplace, and is

focused on determining the meaning of phenomena or the product of the research to create practical solutions to social problems (Shannon-Baker, 2016). Pragmatism claims that the only way in which knowledge can be gleaned is through the combination of action and reflection, and therefore relationships between actions and consequences (Biesta, 2010).

While a quantitative approach is primarily based on deduction and a qualitative one on induction, a pragmatic strategy relies on abductive reasoning that moves back and forth between induction and deduction. Some researchers view pragmatism as the most suitable paradigm for justifying the use of mixed methods research (Venkatesh, Brown, & Bala, 2013), which was also the standpoint of this researcher in adopting a mixed methods research approach.

Mixed methods research is described as the third research paradigm, following the quantitative and qualitative paradigms, which can bridge the divide between these worldviews, with pragmatism as the philosophical partner of mixed methods research which combines the insights of quantitative and qualitative research into a workable solution (Johnson & Onwuegbuzie, 2004). Pragmatism disregards the quantitative versus qualitative conflict and the paradigm war by suggesting that the most important issue is whether the research has answered the researcher's questions (Feilzer, 2010).

In this study, the researcher endeavoured to compare, combine and contrast the quantitative results and qualitative findings of the mixed methods research in order to formulate solutions to the research questions. Specifically, the aim was to determine the causes of exclusion of persons with physical disabilities from employment and to identify practical, innovative solutions to assuage their plight.

5.1.2 The hermeneutic paradigm

In this convergent mixed methods research study, employers' responses to the open-ended questions contained in the customised survey questionnaire as well as

the responses of persons with physical disabilities to the structured telephonic questions, constituted text. Hermeneutics is an approach to the analysis of texts that emphasises how prior understandings and prejudices shape the interpretive process where interpretation involves making sense of the observed phenomenon in a manner that conveys understanding (Denzin & Lincoln, 2000). The focus on the parts brings the particular into view to improve understanding of the social and psychological dynamics that shape humans (Kincheloe & McLaren, 2000).

The main assumption of hermeneutics is that the content and associated meanings of non-numerical material should be unambiguous. The text responses as a whole can only be understood by examining its parts, while the parts can only be understood in relation to the whole. The research is bound to the contextualised researcher and the contextualised research question. Hermeneutics is a special approach to mixed methods research (Bergman, 2010). Specifically, the hermeneutic circle refers to the dialectic between the understanding of the text as a whole and the interpretation of its parts, in which descriptions are guided by explanations anticipated by the researcher (Myers, 2008).

As is pertinent to the qualitative strand of this study, Kafle (2011) described hermeneutics as a research methodology aimed at producing textual descriptions of how individuals subjectively experience certain phenomena and then seek a better understanding of the meaning of that experience.

5.1.3 Mixed methods research strategy

The researcher implemented a mixed methods research approach since both quantitative and qualitative data needed to be gathered, analysed and interpreted in order to answer the research questions. Since two different samples were involved, a convergent mixed methods research approach was chosen.

As applicable to this study, mixed methods research entails an approach where quantitative and qualitative research techniques are combined or mixed in a single

study (Creswell & Creswell, 2018). The basic principle is that multiple data, collected by means of different methods, will result in complementary strengths and non-overlapping weaknesses, producing a “superior product”. Mixed methods researchers thus seek convergence and corroboration of results from different methods studying the same phenomenon; complementarity from elaboration, enhancement, illustration and clarification of the results from both methods; identification of contradictions; development, using the findings from one method to help inform the other; and expansion, to enlarge the breadth and range of research through different methods (Johnson & Onwuegbuzie, 2004).

In this study, the results and findings obtained from the responses of employers and persons with physical disabilities respectively, were compared and contrasted to determine whether convergence, complementarity and expansion could be achieved, while taking cognisance of contradictions.

5.1.4 The Afrocentric paradigm

Africanicity is a perspective that places the culture, values and human interest of African people at the fore. It developed under the leadership of Professor Asante at the Department of African American Studies at Temple University. Afrocentricity embraces the epistemology of African shared values, namely the community as the centre, honouring of tradition, spirituality, ethical concern, harmony with nature and profound respect for ancestors (Mazama, 2001).

Afrocentric methods and generated knowledge must reflect the integration of spiritual and physical principles that may very well constitute a major challenge in an environment dominated by rationalism and positivism. Self-knowledge and rhythm play a special role in determining the proper methodology and methods. Indeed, starting with self-knowledge, all Afrocentric inquiry must be conducted through an interaction between the examiner and the subject. Cultural and social immersion are imperative (Mazama, 2001, p. 399).

The epistemology of Afrocentric research presumes that the data to be collected should be orientated towards the lived experiences of African people, from both a historical and contemporary perspective, from which the meaning and nature of culture are inferred and relevant African perspectives form part of the research agenda (Davis, Williams & Akinyela, 2009).

In this study, the literature review incorporated research from abroad, Africa and South Africa pertaining to persons with disabilities and their challenges to secure employment. For the qualitative strand of the mixed methods research, the perspectives and narratives of the lived experiences of persons with physical disabilities were gleaned by means of structured telephonic interviews conducted in their home language by a qualified court interpreter.

5.2 GENERAL AIM AND METHODOLOGY OF THE STUDY

The general aim of the research was twofold. Firstly, it set out to uncover the causes of exclusion of persons with physical disabilities from employment in the South African open labour market, and secondly, to identify interventions that could assuage this situation. A convergent mixed methods research strategy was adopted within the pragmatic and hermeneutic paradigms. Statistical procedures were applied to the quantitative strand of the mixed methods research, while thematic content analysis was implemented in respect of the qualitative strand. Furthermore, where possible, the qualitative data were transformed into numerical counts (Bazeley, 2010). Thus, a convergent mixed methods research strategy was chosen to facilitate both the width of data, through a quantitative technique, and the depth of data, by applying a qualitative approach. McGrath and Johnson (2003) argued that both are necessary for the systematic exploration of any given substantive research domain.

The empirical study focused on the perspectives and attitudes of employers in the South African formal private sector in relation to the employment of persons with disabilities, on the one hand, and the perceptions and experiences of persons with

physical disabilities on the other. However, in several cases, they had other disabilities as well. The insights of certain advocacy organisations, as well as groups associated with persons with disabilities, were also canvassed owing to their direct involvement with persons with disabilities.

In accordance with the general aim of the research, the causes of negative perceptions and attitudes in respect of persons with disabilities in the workplace, as inferred from the literature review, were expounded on in Chapter 2. The researcher commenced by compiling spreadsheets of variables identified in the body of scholarship in terms of these causes as well as possible interventions that could assuage this state of affairs. Based on these variables, the researcher chose to conduct a survey and then conceptualised the items contained in the customised questionnaire that was submitted to South African formal private sector employers. This instrument comprised Likert-type scaled items, dichotomous items and open-ended questions, the responses to which formed the basis of the quantitative strand of the mixed methods research.

In the case of persons with disabilities, the challenges faced pertaining to their quest for employment, were identified in the literature review and presented in Chapter 3. Again, the body of scholarship underpinned the researcher's choice to conduct structured telephonic interviews and also served as the basis to develop the contents of the two interview schedules that were administered to unemployed and employed persons with physical disabilities, respectively. The responses to the telephonic interview questions formed the basis of the qualitative strand of the mixed methods research. The database of persons with physical disabilities already contained certain information such as age, educational level and contact details.

In addition, an electronic inquiry composed of three open-ended questions was submitted to certain disability advocacy organisations and associated groups, the latter comprising employment agencies that specialise in the placement of persons with disabilities and rehabilitation professionals (occupational therapists).

5.3 MIXED METHODS RESEARCH

5.3.1 Origin, definition and description

5.3.1.1 *Origin*

As cited by Creswell (2009), the concept of mixing different methods originated when Campbell and Fiske (1959) used “multimethods” to study the validity of psychological traits. Soon other methods were mixed such as observations and interviews (qualitative data) combined with surveys (quantitative data). Researchers asserted that bias inherent in any single method could be neutralised by such combinations. By the early 1990s, mixing of methods developed from seeking convergence to integrating or connecting the quantitative and qualitative data, which could be merged into one database or the results used side by side to reinforce each other (e.g. where qualitative extracts support statistical results) (Creswell, 2009).

5.3.1.2 *Definition and description*

Numerous definitions of mixed methods research as a strategy of enquiry emerged from the literature.

Creswell and Creswell (2018, p. 4) defined mixed methods research as follows:

An approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data and using distinct designs that may involve philosophical assumptions and theoretical frameworks.

Creswell (2009) described mixed methods research as involving philosophical assumptions and the use and mixing of qualitative and quantitative techniques in tandem. In mixed methods research, the research question steers the choice of methods (Johnson & Onwuegbuzie, 2004).

According to Morse (2010a), mixed methods can also consist of two or more qualitative methods rather than only a mix of quantitative and qualitative research designs, while Nicolaas, Campanelli, Hope, Jäckle and Lynn (2015) utilised two quantitative approaches in a mixed modes experiment to evaluate survey response formats. However, according to Venkatesh et al. (2013), both of the above would be categorised as multimethod research within the same paradigm since mixed methods research, by definition, combines quantitative and qualitative designs, despite the differences in epistemologies and methodologies. Venkatesh et al. (2013) alluded to mixed methods research as the third methodological movement or paradigm, with quantitative methodology as the first and qualitative approaches as the second movement. In the same vein, Denzin (2010) referred to mixed methods research as the third methodological moment that endorses paradigm proliferation and incorporates increasingly diverse standpoints.

Developed from the mixed methods approach, Plowright (2011) proposed that philosophy does not determine the research methodology adopted, but rather methodology determines the paradigm employed to explain the research approach chosen. In this study, a convergent mixed methods research strategy was implemented in line with the research aims.

5.3.2 Rationale for adopting a mixed methods research strategy

In this study, the researcher's intention to implement a convergent mixed methods research approach was to identify and describe the perspectives and attitudes of South African formal private sector employers towards hiring persons with disabilities, on the one hand, and the challenges and experiences of persons with physical disabilities in seeking employment, on the other. The former encompassed the quantitative strand and the latter the qualitative strand, which served to complement the former, referred to as complementarity. Complementarity is sought through elaboration, illustration, clarification and/or enhancement of the findings of one strand in relation to the results of the other strand (Onwuegbuzie & Combs, 2010). Since the mixed methods approach adopted by the researcher consisted of

both a quantitative and a qualitative strand, these strategies are presented separately in this chapter.

The reasons for adopting a convergent mixed methods research approach in this study resonate with the findings of Hesse-Biber (2010) who, from an overview of mixed methods studies, inferred that researchers adopted this approach to increase the generalisability of qualitative findings through a representative sample; to improve the validity and reliability of the research findings; to explain inconsistent results and address contradictions in quantitative and qualitative data; to test the validity of one set of results by means of another study on a large population; to promote understanding of the research problem and findings; and to converge findings.

An assumption of mixed methods research is that evidence is collected based on the nature of the research question and theoretical orientation, while targeting a variety of sources and levels that influence a given problem (e.g. organisations, family or individual). The planned collection of both quantitative and qualitative data maximises the strengths and minimises the weaknesses of each (Klassen, Creswell, Plano Clark, Smith, & Meissner, 2012). Venkatesh et al. (2013) presented the purposes of mixed methods research as seeking to gain complementary views about the same phenomena; to obtain a complete picture of a phenomenon; to develop inferences or hypotheses from one strand for another; to expand the understanding of one strand of the study through the other; to confirm the credibility of inferences drawn; to counteract the weaknesses of one approach by using the other; and to attempt to obtain divergent views of the same phenomenon.

In this study, complementarity, completeness, expansion, confirmation and divergence were sought by adopting a convergent mixed methods research strategy involving two different samples, in order to answer the research questions as presented in Chapter 1.

For many years, a debate has raged over the compatibility of quantitative paradigms and methods versus those of qualitative approaches in respect of epistemology, ontology, axiology and methodology. However, the use of different methods in a single study promotes the generalisability of quantitative results and the in-depth contextual nature of qualitative findings. Furthermore, mixed methods research uses competing paradigms on purpose and affords them approximately equal status and merit (Hanson et al., 2005).

In the case of this research, a convergent mixed methods research strategy was adopted with a relatively large sample of formal private sector employers, on the one hand, and a large sample of persons with physical disabilities, on the other, which should enhance generalisability of the results and findings. It was envisaged that the quantitative data attained from employers would provide width of data while the qualitative data obtained from persons with physical disabilities would facilitate depth of insight into the true causes of negative attitudes harboured towards this group in the workplace, culminating in their exclusion. Thus, a holistic picture of the phenomenon was sought.

5.3.3 Characteristics and types of mixed methods research designs

5.3.3.1 Characteristics of mixed methods research designs

The main characteristic of mixed methods research is the sequential or concurrent combination of quantitative and qualitative techniques pertaining to data collection, analysis and interpretation within a single study (Venkatesh et al., 2013).

Cameron (2011) referred to the five Ps framework of mixed methods research, namely paradigms, pragmatism, praxis, proficiency and publishing. According to Greene, Caracelli, and Graham (1989), the characteristics of mixed methods designs entail the extent to which the qualitative and quantitative methods chosen for a study are similar to or different from one another in terms of assumptions, strengths and weaknesses; the degree to which the qualitative and quantitative

methods are intended to investigate different or the same phenomenon; whether the set of methods used is designed and implemented interactively or independently and within the same or different paradigms; the extent to which the qualitative and quantitative methods have equal weight in relation to the study aims; and whether the chosen methods are executed concurrently or sequentially.

In this convergent mixed methods study, the researcher applied different methods (customised survey questionnaire and structured telephonic interviews); investigated the same phenomenon (causes of exclusion of persons with physical disabilities from employment); designed and implemented the two methods independently within different paradigms (pragmatism and hermeneutics) but more or less within the same time frame; and assigned more weight to the quantitative strand than the qualitative one.

Johnson and Onwuegbuzie (2004) described the strengths and weaknesses of mixed methods research. The strengths entail, inter alia, that words, pictures and narrative can be used to add meaning to numbers and vice versa; it can generate and test a grounded theory; it can answer a broader and more complete range of research questions; the strengths of one method serve to overcome the weaknesses of the other one used; stronger evidence for a conclusion can be gathered through convergence and corroboration of findings; generalisability of results can be achieved; and two methods used in tandem can produce more thorough knowledge necessary for theory and practice. The weaknesses encompass, inter alia, that the researcher must master multiple methods and mix them appropriately; mixed methods research is more expensive and time consuming; and mixed methods research is still in need of refinement such as solving problems of paradigm mixing, how to interpret conflicting results, etc.

In this study, the researcher chose a convergent mixed methods research approach with both a quantitative and qualitative strand, based on the strengths of this method. Words (text) could augment the meaning of the quantitative data; mixed methods research could answer all the research questions of the study; the

weaknesses of quantitative data (width) could be surmounted by qualitative data (depth); convergence and corroboration of the results and findings could support credible conclusions drawn and enable generalisability to similar populations; and the research problem could be addressed more comprehensively. The paradigms applicable to this study were suited to mixed methods, namely pragmatism (Venkatesh et al., 2013) and hermeneutics (Bergman, 2010), as described earlier in this chapter. Thus, the weaknesses were outweighed by the strengths.

5.3.3.2 Types of mixed methods research designs

Earlier sources referred to concurrent embedded or nested mixed methods designs (Creswell, 2009), while new sources have re-named this approach convergent mixed methods research (Creswell & Creswell, 2018). The three core mixed methods research designs encompass convergent mixed methods design, explanatory sequential mixed methods design and exploratory sequential mixed methods design (Creswell & Creswell, 2018). In this study, a convergent mixed methods research strategy was adopted in line with the research aims, as well as the type of samples required to answer the research questions.

a Convergent mixed methods research

In this approach, the researcher converges or merges the quantitative and qualitative data to investigate and solve the research problem. The two sets of data are collected approximately during the same period, analysed separately and integrated at the stage when the results and findings are interpreted. The quantitative results and qualitative findings are compared and contrasted to establish whether they confirm or disconfirm each other. The quantitative and qualitative approaches produce different types of data – a key assumption of this strategy (Creswell & Creswell, 2018). Inconsistent and contradictory findings are addressed.

In this study, the researcher adopted a convergent mixed methods research strategy where the quantitative approach consisted of a customised survey questionnaire submitted to formal private sector employers and the qualitative technique entailed structured telephonic interviews conducted with persons with physical disabilities. Both enquires were undertaken within approximately the same time frame.

b Explanatory sequential mixed methods research

In this approach, the researcher conducts quantitative research and, following analysis of the results, qualitative research is undertaken to further explain the quantitative results (Creswell & Creswell, 2018).

c Exploratory sequential mixed methods research

This approach entails the reverse sequence of the explanatory sequential strategy since the qualitative phase is followed by a quantitative phase (Creswell & Creswell, 2018).

5.3.4 Mixed methods research design

A diagram and description of the research process followed in this study were presented in Chapter 1. The first phase of the research entailed the literature review as presented in Chapters 2, 3 and 4 of this thesis.

5.3.4.1 Research approach

In line with the research aims of the study, quantitative data were collected from employers and qualitative data were gathered from persons with physical disabilities. The research approach of this study thus constituted mixed methods research, specifically a convergent design, with a quantitative strand and a qualitative strand. The former carried more weight than the latter. In respect of the

quantitative strand, a correlational research approach was followed since relationships between latent factors, which emanated from exploratory factor analysis and structural equation modelling, were sought in order to uncover the underlying causes of exclusion of persons with physical disabilities from employment. In the case of the qualitative strand, thematic content analysis was performed in respect of the transcribed text responses obtained from persons with physical disabilities during the structured telephonic interviews conducted.

5.3.4.2 Research strategy

To determine the causes of exclusion of persons with physical disabilities from employment, in accordance with the research aims of this study, a convergent mixed methods research strategy was adopted. As alluded to earlier in this chapter, in a convergent mixed methods research design, quantitative and qualitative data are collected and analysed separately but the results and findings are converged to establish whether they confirm each other or not. Contradictions and incongruences are then explored and explained (Creswell & Creswell, 2018).

5.3.4.3 Research methods

In this study, the quantitative strand of the convergent mixed methods research consisted of data collected from formal private sector employers by means of a customised survey questionnaire, while the qualitative strand comprised data gathered from persons with physical disabilities through structured telephonic interviews based on interview schedules. The theory relating to quantitative and qualitative techniques is presented in those sections of this chapter where these are discussed separately.

5.3.4.4 Sampling of research participants

Kerlinger and Lee (2000) described sampling as drawing a portion of a population or universe that is considered to be representative of that population or universe. A

sample consists of participants who form the focus of a study for the investigation of a phenomenon. The main categories involve random sampling and non-probability sampling. Kerlinger and Lee (2000) referred to random sampling as a method where every possible sample of a particular size has an equal chance of being selected, assuming that the sample is representative in respect of the characteristics of the targeted population. In non-probability sampling, the sample is chosen intentionally and includes purposive sampling, convenience sampling, quota sampling and viral sampling, the latter also known as snowball sampling (Plowright, 2011).

In this research, purposive sampling was applied across the board. Kerlinger and Lee (2000) described this type of sampling as the use of judgement and a deliberate effort to obtain representative samples by including areas or groups in the sample that are regarded as typical of the population.

a Quantitative strand: Sampling of employers

In this study, prior to distribution of the customised survey questionnaire to the sample of employers, a pilot study was undertaken where it was submitted by electronic mail to ten experts, of whom five responded. The aim was to obtain their comments and suggestions in respect of the structure of the questionnaire and the content of the items, particularly their clarity and appropriateness. Following implementation of their feedback, the questionnaire was submitted to an online survey service provider who programmed it for electronic application. A database of approximately 20 000 individuals, employed in the South African formal private sector in human resources was acquired from a database company. The database contained names, job titles, organisation names and email addresses. However, the database was cleaned by the online survey service provider since it also contained the details of incumbents not employed in human resources. Finally, a list of 8 597 human resources directors, managers and officers emerged, to whom the electronic customised survey questionnaire was distributed. As reminders, the questionnaire was resent to 6 149 of the potential respondents at a rate of 500 per

day. Three weeks after the last round of questionnaires had been sent, the researcher decided to terminate the exercise, at which point 342 responses had been received. Thus, a response rate of 3.98% was achieved. The online survey questionnaire was lengthy and the topic could be regarded as sensitive. The questionnaire was accompanied by a covering letter, addressed to individuals, which invited these potential respondents to participate, obtained their consent and provided all the information required to comply with the Research Ethics Committee of the University of South Africa. It was accepted that human resources directors, managers and officers would possess the knowledge and authority to complete the survey questionnaire on behalf of their employer organisation and therefore gatekeepers were unnecessary.

b Qualitative strand: Sampling of persons with physical disabilities

At the stage when interviews with persons with physical disabilities were to be conducted, the researcher had access to a database of more than 7 000 persons who had been injured in motor vehicle collisions. A convenience purposive sample was drawn since the researcher specifically intended to interview persons with physical disabilities. A software program was developed by a service provider to extract the details of male and female potential respondents from their psycho-legal reports who met the researcher's criteria in terms of age (18-55 years), educational level (minimum Grade 10/Std 8) and type and severity of injuries (moderate to severe physical injuries).

The respondents represented different South African language groups and therefore the researcher contracted a qualified court interpreter to conduct the structured telephonic interviews as explained in Chapter 1. The interpreter was qualified to conduct structured telephonic interviews by means of interview schedules. She was coached by the researcher in respect of the content of the interview schedules. Once the interviews commenced, she obtained the respondents' telephonic consent to participate in the interviews and then recorded their responses verbatim (Hall & Hall, 1996). Another reason for having her conduct

all telephonic interviews was to ensure that all the respondents were treated the same (Creswell & Creswell, 2018). Had the researcher interviewed those who were proficient in English or Afrikaans but not others, inconsistent approaches could have transpired. All of the respondents were adults and qualified to give their consent. Furthermore, the Road Accident Fund claims for their compensation had been settled by the time the interviews occurred and therefore no external party, such as an attorney, held their mandate any longer, while so-called gatekeepers were unnecessary. The interpreter also signed an affidavit that she had conducted 312 interviews with the respondents in the sample. Sampling to redundancy (Durrheim, 1999a) was applied, and when 312 persons with physical disabilities had been contacted and interviewed, it became clear that saturation was achieved since the responses became similar and repetitive. Only one individual, of the 313 reached, declined to participate in the exercise. Before a researcher reaches the stages of data analysis and interpretation, the trustworthiness of qualitative research already applies to sample adequacy since the type and size of the sample should suit the research design (O’Cathain, 2010).

5.3.4.5 Data collection in mixed methods research

Following identification of the paradigm appropriate to a study, the chosen methods and the application of the findings are defined. The order in which the quantitative and qualitative data will be collected, be it concurrently or sequentially, and the weight assigned to the two types of data, be it equal or unequal, must be specified. The method with less weight serves to corroborate, refute or augment the findings of the other. The stage at which data analysis and integration will occur then needs to be decided since data can be analysed separately, or be transformed, or connected or merged to enable comparison and contrasting of the results and findings. The themes that emerge from the qualitative data could be transformed into numerical data for comparison with the quantitative data (Hanson et al., 2005). Teddlie and Tashakkori (2009) found that questionnaires are one of the typical data collection instruments used in mixed methods research, containing both closed-

ended items with predetermined response categories and open-ended items that require narrative responses.

The first empirical research aim of this study was to adopt a convergent mixed methods research approach in order to uncover the causes of exclusion of persons with physical disabilities from employment in the South African formal sector, while the first literature research aim was to conceptualise the causes that culminate in barriers to employment experienced by persons with physical disabilities, as contained in the body of scholarship. In order to execute the research, data were collected for the quantitative and qualitative strands, respectively, by means of suitable samples and methods.

a Quantitative strand: Data collection

A customised survey questionnaire was designed in order to collect data from formal private sector employers, being the most suitable method for the task, as described in the section on quantitative research. The researcher formulated the response categories for the customised survey questionnaire based on the literature review, as expounded on in Chapter 2. It was titled “Survey of employers’ perspectives of persons with disabilities”, and comprised the following five sections: A: Demographic information; B: The employment of persons with disabilities: Overview; C: The employment of persons with disabilities: Specific aspects; D: General perceptions pertaining to persons with disabilities; and E: Your final valued opinion. The structure of the questionnaire comprised 68 questions of which 38 also contained subquestions in order to gather additional information. The majority of the subquestions generated responses in the form of lists, for example, the kinds of jobs in which employers would be willing to employ a person with a specific type of disability. There were nine open-ended questions designed to elicit additional responses in the form of text, for example, the reasons for agreement or disagreement with a particular statement reflected in a Likert-scaled item. Three of these nine open-ended questions were not linked to a Likert-type scaled item and stood alone. The other six qualitative items (open-ended questions) served to

augment the responses to the relevant quantitative items (Likert-type scaled items and dichotomous items) (see Appendix B).

b Qualitative strand: Data collection

The researcher chose structured telephonic interviewing for collecting data from persons with physical disabilities, being the method suited to the task, as described in the section on qualitative research. Based on the literature review, the issues surrounding the exclusion of persons with physical disabilities from the workplace were identified and served as the frame of reference for the formulation of the questions contained in the two interview schedules, one for employed and one for unemployed persons with physical disabilities. Interview protocols are used to conduct telephonic interviews (Creswell, 2009). The questions focused on, inter alia, their current employment status; perceptions of the reasons for failure to secure gainful employment, if applicable; obstacles encountered in this endeavour; positive and negative experiences; strategies adopted to pursue employment; and so forth (see Appendix C).

As alluded to in Chapter 1 (section 1.7.5.4), a qualified court interpreter was contracted by the researcher to conduct the telephonic structured interviews. She recorded the responses verbatim (Hall & Hall, 1996).

Creswell and Creswell (2018) illustrated the convergent mixed methods design as presented in Figure 5.1

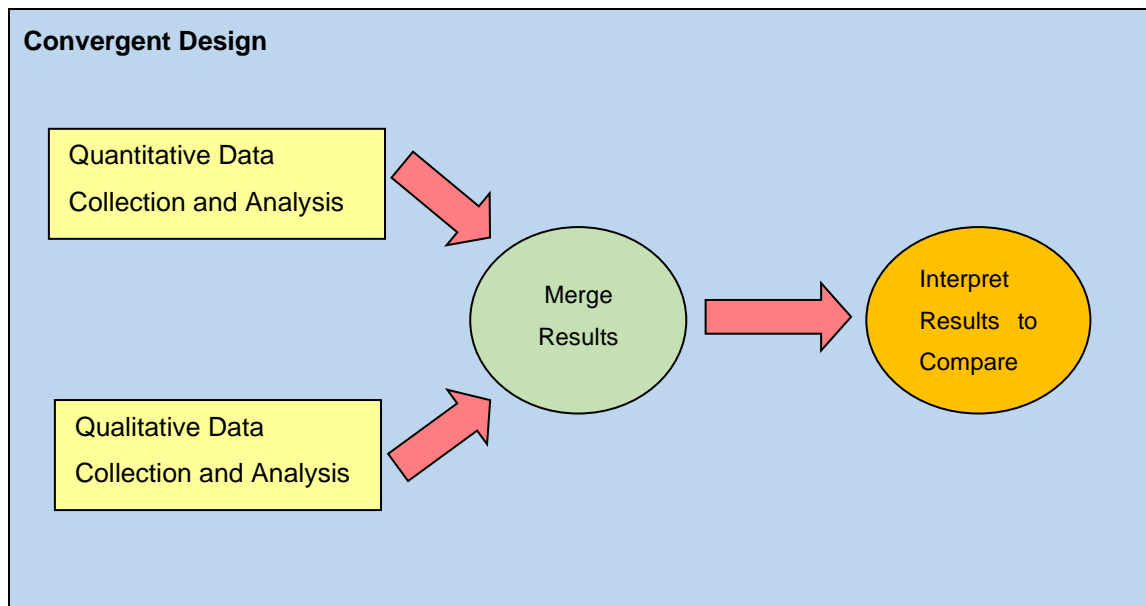


Figure 5.1 Diagram of a convergent mixed methods design Source: Creswell and Creswell (2018, p. 218)

As illustrated in Figure 5.1, quantitative and qualitative data are collected and analysed separately but the results and findings are merged for comparison and interpretation.

5.3.4.6 Data analysis in mixed methods research

Data analysis in mixed methods research involves two separate, independent processes, namely quantitative analysis of data, using descriptive and inferential statistics for the appropriate variables, and qualitative analysis of data, using thematic content analysis of the relevant narrative data. Inferences are generated from each strand, which provides an understanding of the phenomenon under investigation. These are linked, combined and integrated into meta-inferences. A greater assortment of divergent views is possible which is one of the major advantages of mixed methods (Teddlie & Tashakkori, 2009).

a Stages in mixed methods data analysis

Based on the work of other researchers as well as their own, Johnson and Onwuegbuzie (2004) conceptualised the stages of mixed methods data analysis as data reduction, through appropriate techniques such as thematic analysis, descriptive statistics, exploratory factor analysis, and so forth; data display, through charts, graphs, lists, diagrams, tables and suchlike; data transformation, where quantitative data are converted into text or qualitative data are converted into numerical codes for statistical analysis; data correlation, where the data sets are correlated; data consolidation, where quantitative and qualitative data are combined to generate new or consolidated variables or data sets; data comparison, where the two data sources are compared; data integration, where the two sets of data are integrated into one or two wholes; and legitimation, which refers to the trustworthiness of the qualitative and quantitative data and the associated interpretations. Of importance is that rival explanations need to be reduced or eliminated.

In this study, the convergent mixed methods research strategy encompassed all of these stages, as illustrated in Chapter 6. Multiple levels were examined, namely at a quantitative level (survey questionnaire) and at a qualitative level (structured telephonic interviews) to increase understanding of the phenomenon under investigation, namely the causes of exclusion of persons with disabilities, physical disabilities in particular, from employment.

b Quantitative strand: Data analysis

Based on the nature of data collected for the quantitative strand of this mixed methods research, appropriate statistical techniques were chosen for analysing employers' responses to the questions contained in the customised survey questionnaire. As expounded on in the next section which describes quantitative research, these procedures included descriptive statistics (percentages, means and frequencies), illustrated in tables, bar graphs and pie graphs, data reduction

procedures (exploratory factor analysis) and inferential statistics (chi-square tests). Furthermore, three structural equation models were developed.

Apart from employers' responses to the closed questions, their responses to the open-ended questions contained in the customised survey questionnaire, which served to augment the data generated by the Likert-type scaled and dichotomous items, were subjected to thematic content analysis. Definitions, assumptions and the motivation for the choice of statistical analytical techniques are presented in the section of this chapter where quantitative research as a strategy is discussed.

c Qualitative strand: Data analysis

Based on the nature of data collected for the qualitative strand of this mixed methods research, thematic content analysis was considered the appropriate technique for analysing the text responses of persons with physical disabilities to the structured telephonic interview questions. As described later in this chapter (section 5.5.3.3), these responses were transcribed verbatim, captured in Microsoft Excel and sorted by question. In analysing the qualitative data, the researcher followed the steps for thematic content analysis as described in the literature by, inter alia, Braun and Clarke (2006), Creswell (2009), Leedy and Ormrod (2010), and Ryan and Bernard (2003). Where feasible, themes were counted and transformed into numerical codes for illustration in frequency tables. The results from the quantitative strand and the findings from the qualitative strand were compared and contrasted for integration and interpretation.

The conversion of qualitative data into numbers, also referred to as transforming qualitative data sets, offers certain benefits. According to Maxwell (2010), including numbers in qualitative research contributes to the internal generalisability of inferences and shows that the findings are characteristic of the setting or set of individuals as a whole. Transformed qualitative data help to identify patterns that are not apparent from qualitative data, aid in presenting evidence for interpretation

and ward off claims that data were intentionally selected to underscore interpretations.

5.3.4.7 Data integration in mixed methods research

To ensure quality inferences, certain criteria need to be met. According to Teddlie and Tashakkori (2009), these encompass design appropriateness; design adequacy; within-design consistency, where components are compatible; the use of appropriate data analysis procedures; interpretive consistency, where inferences match the findings; theoretical consistency of inferences with the literature; interpretive agreement, where others can duplicate the results and conclusions; interpretive distinctiveness, where inferences are credible and include other possible conclusions; integrative efficacy, where meta-inferences are based on inferences from each strand and inconsistencies are explained; and interpretive correspondence, where inferences flow from the research aims of the study, while the mixed methods approach is warranted by the meta-inferences deduced.

In this study, the researcher endeavoured to meet the criteria for quality inferences (Teddlie & Tashakkori, 2009) in respect of the design of the study, being a convergent mixed methods research strategy, and therefore adequate and appropriate. Furthermore, emphasis was placed on the compatibility of the chosen methods and the suitability of the data analysis procedures; the formulation of appropriate inferences in relation to the findings, the theory and the aims of the study; and the comparison of inferences from both strands, while also taking cognisance of inconsistencies and alternative explanations in order to deduce credible meta-inferences.

a Integration of the data

Klassen et al. (2012) opined that the mixing of data could take place during data collection where both quantitative and qualitative questions are contained in the same survey; during data analysis when qualitative data are transformed into

quantitative counts for comparison with quantitative data; and/or during data interpretation when the results of the quantitative strand are compared with the findings of the qualitative strand.

The integration of the quantitative and qualitative databases forms the third phase of data analysis in convergent mixed methods designs, having been preceded by statistical analysis of the quantitative results and thematic content analysis of the qualitative findings. Integration is brought about by merging these results and findings either through side-by-side comparison or through transformation of qualitative themes into quantitative variables in order to combine the two databases for purposes of comparison and interpretation. Convergence and divergence of the results and findings are investigated and discussed (Creswell & Creswell, 2018). By merging the separate sets of results, complementarity is sought and the phenomenon under study is better understood. Additional factors might be uncovered, while inconsistencies must be clarified (Plano Clark, 2010).

In a review of mixed methods research, Venkatesh et al. (2013) found that the dominant study, whether quantitative or qualitative, is usually characterised by much more rigorous data collection and analysis than the less dominant strand, the latter with inadequate details about, inter alia, its methodology. However, both strands should be analysed rigorously in order to draw credible inferences and meta-inferences, based on the integration of the results and findings to produce a holistic, comprehensive understanding and explanation of the phenomenon studied.

In this study, integration of the results and findings occurred after the quantitative and qualitative data had been collected, analysed and interpreted separately. Where possible, qualitative data were transformed into numerical codes in order to compare the two sets of data for interpretation (Creswell & Creswell, 2018).

b Meta-inferences

In executing mixed methods studies, qualitative and quantitative data are combined or integrated to maximise the strengths and minimise the weaknesses of each method and to facilitate the formulation of meta-inferences. In the process, contradictory as well as confirmatory aspects of the evidence are identified, which can culminate in a new understanding of the phenomena under study (Klassen et al., 2012).

Meta-inferences should satisfy certain criteria, described by Venkatesh et al. (2013) as encompassing integrative efficacy, which refers to the quality of comparison, contrast and linkage of results and findings from both strands of mixed methods research; integrative correspondence, where researchers adopt a mixed methods research approach in line with an overarching research aim for both strands; and inference transferability, where the derived meta-inferences are generalisable to other contexts and settings, but with boundary conditions of these to demarcate their generalisability. According to Teddlie and Tashakkori (2009), inference transferability is the terminology used in mixed methods for the concepts of generalisability and external validity in quantitative research and transferability in qualitative research.

In this study, the adoption of a convergent mixed methods research approach was intentional in order to gather both quantitative and qualitative data. The overarching research aim of both the quantitative and qualitative strands was to establish the causes of exclusion of persons with physical disabilities from employment. The use of a quantitative approach only would have produced width of data without depth, the latter referring to the reasons for participants' responses to particular items. By comparing, contrasting, linking and blending the results and findings from the two strands, inferences were drawn with the objective of formulating meta-inferences that culminated in a more comprehensive understanding of the phenomenon. It was anticipated that the meta-inferences (Venkatesh et al., 2013) derived from this study, could be transferred to

comparable contexts and settings such as other formal private sector employers and persons with other disabilities.

c Types of transferability

According to Teddlie and Tashakkori (2009), in mixed methods studies larger and more representative samples in the quantitative strand might increase confidence in generalising the findings to other settings or populations, while the rich perspectives obtained from the qualitative strand could enable comprehensive assessment of the conditions from which the inferences were drawn.

Different forms of transferability exist, namely ecological transferability, where inferences, policy and practice recommendations might be applicable to other similar settings; population transferability, where inferences might apply to other people (individuals/groups) or other entities (texts or artefacts); temporal transferability, where inferences may be applicable in the future owing to changing social and cultural contexts; and theoretical/conceptual transferability, where the findings and inferences of a study can be replicated. Population transferability is important in survey designs (Teddlie & Tashakkori, 2009).

This study involved employers in the South African formal private sector and the results obtained from analyses of their responses could probably be transferred to other South African employers, while the responses of persons with physical disabilities could probably be transferred to persons with other disabilities, given the large samples. Apart from ecological transferability, population transferability and temporal transferability (Teddlie & Tashakkori, 2009) being applicable, the results and findings of this study could be replicated by using the same theoretical constructs as well as a mixed methods research approach.

5.3.5 Trustworthiness of mixed methods research

In this section, the trustworthiness of mixed methods research, per se, is described. Mixed methods research consists of quantitative and qualitative strands, both subject to validation in their own right. Trustworthiness is required in terms of the data, results, findings and conclusions. The concepts of validity, reliability, replicability and generalisability, as applicable to quantitative research, and those of credibility, dependability, confirmability and transferability, associated with qualitative research (O’Cathain, 2010), are discussed separately in the sections describing these approaches. Researchers differ in respect of whether or not unique terminology is required for mixed methods research. Venkatesh et al. (2013) proposed that mixed methods research validation should be distinguished from quantitative and qualitative terminology, by using nomenclature such as inference quality rather than validity and data quality instead of reliability.

Instead of so-called “validity” and “reliability” in mixed methods research, the preferred terms are inference quality, which refers to design quality, and the authenticity and accuracy, and therefore quality, of inferences and conclusions; and data quality, which signifies the dependability or credibility of the data collected. The goal is to generate meta-inferences (Johnson & Onwuegbuzie, 2004) of high data quality from the quantitative results and qualitative findings that create confidence in the conclusions and provide a holistic understanding of the phenomenon studied (Teddlie & Tashakkori, 2009).

Mixed methods research allows the strengths of the one technique to compensate for the weaknesses of the other, which improves the validity of the findings. Mixed methods research trustworthiness could be influenced by the sample selection technique, sample size, unexplained contradictions in the results and findings, data collection bias, incompatible research questions, and the like (Creswell, 2009). As pointed out by Venkatesh et al. (2013), deficiencies in data collection and analysis procedures could place the validity of a study at risk and must be addressed in conjunction with the actions taken to minimise such threats.

The researcher took cognisance of the criteria applicable to quality data and incorporated firstly, design quality, which refers to the suitability of designs to the research questions (Teddlie & Tashakkori, 2010). In this study, a customised survey questionnaire was designed to canvass the sample of employers' perspectives, while structured telephonic interviews were conducted to obtain the views of the sample of persons with physical disabilities. The former encompassed the quantitative strand and the latter the qualitative strand of the mixed methods research. The quantitative data were analysed by means of appropriate statistical techniques and the qualitative data were subjected to detailed thematic content analysis in order to answer the research questions. Secondly, the researcher also took cognisance of interpretive rigour (Teddlie & Taskakkori, 2010), which refers to, in essence, consistency. The researcher formulated interpretations based on the results and findings of the convergent mixed methods research study and connected these to the relevant theory on the phenomenon. In this convergent mixed methods research study, the researcher endeavoured to satisfy the criteria for high data quality (Teddlie & Tashakkori, 2009) by applying rigour to all the phases of both the quantitative and qualitative strands in order to obtain credible, trustworthy and dependable measures that would facilitate inference quality and credible meta-inferences (Johnson & Onwuegbuzi, 2004). The research questions were compatible with a mixed methods research strategy. Ethical considerations were described in section 1.7.7 in Chapter 1.

a Quantitative strand

The customised survey questionnaire, distributed to formal private sector employers, contained quantitative items (Likert-type scaled and dichotomous items) as well as open-ended questions to augment the responses. This type of instrument was deemed suitable, adequate and consistent (Teddlie & Tashakkori, 2009), while it allowed for appropriate statistical data analysis procedures, consistency and duplication. Furthermore, the researcher explained incongruous findings and kept the aims of the study in the foreground. The contents (items/variables) of the

customised survey questionnaire were regarded as valid, having been based on the literature review and subjected to exploratory factor analysis (EFA). A number of items were constructed differently, where a closed question was accompanied by an open-ended question in order to augment and validate the responses. The customised survey questionnaire was submitted to a pilot study which comprised a group of experts (Gideon, 2012) for validation and their suggestions were then incorporated into the questionnaire. The quantitative data were subjected to statistical analysis, while the employers' responses to the open-ended questions were subjected to thematic content analysis and transformed into numerical counts, where possible, with the data presented in theme frequency tables. Verbatim quotations (data extracts) of the respondents served to support the results.

Since the purposive sample of employers responded to an online customised survey questionnaire, their responses could not be probed or expanded upon. The particulars of the sample were discussed in section 5.3.4.4. To enhance the trustworthiness of the data obtained by means of the customised survey questionnaire, the following measures were implemented:

- (1) Likert scales are suited to attitude surveys (Uebersax, 2006).
- (2) Instructions were straight forward and expressed plain language.
- (3) The contents of the items were based on issues that emerged from the literature review.
- (4) Several items measured the same dimension.
- (5) A pilot study was undertaken to validate the structure and contents of the questionnaire.
- (6) Anonymity of respondents prevailed to discourage or limit socially desirable responses but it was accepted that response bias occurred.
- (7) Where utilised, open-ended questions served to augment the closed ones.
- (8) Construct validity was borne out by the EFA.
- (9) Data extracts from respondents (verbatim quotes) were used to provide evidence of themes (Braun & Clarke, 2006).

- (10) Streams of text were forthcoming from the open-ended questions, enabling themes to be derived from several responses.

b Qualitative strand

The structured telephonic interviews were conducted by means of interview schedules, the contents of which were derived from the literature review and based on the research aims. One interview schedule was designed for employed and the other for unemployed persons with physical disabilities. A court interpreter was contracted who could interview the respondents in any of the 11 official South African languages, enabling them to express themselves in their mother tongue. Having one person interview all of the participants ensured consistent treatment across the board. To ensure trustworthiness, she recorded the responses verbatim. Systematic transcription of data increases their dependability (Silverman, 2000). These verbatim responses would later serve as evidence in the form of quotes to substantiate the findings. The responses were transcribed and captured in Microsoft Excel for thematic content analysis, transformed into numerical counts, where possible, and presented in theme frequency tables. This transformation in qualitative research contributes to the internal generalisability of inferences (Maxwell, 2010).

In order to enhance the quality of the qualitative data obtained, the researcher took the following steps as described by Creswell and Creswell (2018):

- (1) The researcher remained close to the data during all the phases and recorded every step.
- (2) Interview schedules were developed, based on the theory, and used in the structured telephonic interviews.
- (3) Data extracts (verbatim quotes) from respondents were used to provide evidence of themes, to converge the perspectives of different respondents and to paint a picture of their experiences for others to understand (Creswell & Creswell, 2018).

- (4) The court interpreter was coached by the researcher. She interviewed the respondents in their home language and repeated their responses to them to ensure that they agreed with the accuracy of the recorded data and therefore reflected their views. She recorded their responses verbatim.
- (5) The transcribed data from the structured telephonic interviews were checked for accuracy or, conversely, errors, by the researcher. A total of 312 telephonic interviews were conducted.
- (6) Information that contradicted the identified themes was included since, in reality, discrepancies occur.
- (7) It is acknowledged that the researcher's background would play a role in interpreting the findings (Creswell & Creswell, 2018).

Documenting the steps taken during a research project, also improves the reliability of the data acquired. The researcher implemented the following measures as advised by Creswell and Creswell (2018):

- (1) The codes were continuously checked against the data to ensure their consistency.
- (2) Although generalisation falls outside of the scope of qualitative research (Bergman, 2010), the researcher could foresee that persons with disabilities other than physical ones, might well share some of the real-world views of persons with physical disabilities.

The quantitative results and the qualitative findings were collected and analysed independently then compared, contrasted, linked and integrated to achieve complementarity (Venkatesh et al., 2013). Both convergent and divergent outcomes were incorporated and contradictory and unexpected findings were clarified as far as possible by the researcher in an attempt to develop an expanded view (Venkatesh, et al., 2013) and therefore a holistic explanation of the research topic. The meta-inferences drawn were therefore based on inferences that emanated from both the quantitative results and the qualitative findings, while reflecting consistencies and inconsistencies that emerged. The meta-inferences

were related to the aims of the study and whether these had been met (Nastasi, Hitchcock & Brown, 2010).

Transferability/generalisability of the meta-inferences was considered in relation to the research aims and within the confines and context of this research. As far as possible, the researcher took precautions to minimise threats to validity, including bias, and to maximise the ecological transferability of inferences (Teddlie & Tashakkori, 2009) drawn from this study to other similar settings in order to contribute to the theoretical understanding of the phenomenon, namely the causes of exclusion of persons with physical disabilities from employment in South Africa.

Since this study comprised a convergent mixed methods research inquiry consisting of a quantitative and qualitative strand, these two strategies are discussed separately in the sections below. According to Morse (2010b), to maintain rigour, the quantitative and qualitative components must be kept separately until the point of interface.

5.4 QUANTITATIVE RESEARCH

This section applies to the quantitative strand of the convergent mixed methods research strategy.

5.4.1 Origin, definition and description

5.4.1.1 Origin

Quantitative studies, particularly surveys, were utilised as early as the 19th century, but with the prevalence of positivism in the 1930s and 1940s, quantitative research became the dominant research paradigm in the social sciences. Scale construction followed, measuring theoretical constructs linked to operational definitions, with responses to test items amenable to statistical analysis (Babbie & Mouton, 2014).

5.4.1.2 *Definition and description*

Creswell and Creswell (2018, p.4) defined quantitative research as follows:

Quantitative research is an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures.

Quantitative research aims to understand and explore the interrelations and distribution of measures emanating from scaled and categorised data (Lieber & Weisner, 2010). The most commonly used quantitative methods are surveys and experiments. In the case of this study, a customised survey questionnaire was developed for the quantitative strand of the convergent mixed methods research strategy.

The assumptions of quantitative approaches entail that knowledge is conjectural; absolute truth cannot be found; evidence that emerges is prone to error; research is dynamic since claims made can be refined or abandoned or replaced with those more strongly warranted; knowledge is based on data, evidence and rationality; and true statements are sought to describe the causal relationships being studied. To ensure objectivity, researchers examine both methods and conclusions for bias (Creswell, 2009). Although the researcher is separate from the entities or subjects being observed, subjective elements are present and include the researcher's decision about the problem to study, developing appropriate instruments, choosing the items for measurement, interpreting scores, selecting statistical methods of analysis, drawing conclusions, and deciding which findings are significant, what to emphasise and what to publish (Creswell, 2009). According to Johnson and Onwuegbuzie (2004), the causes of phenomena studied can be quantitatively measured in a reliable and valid manner for empirical testing of hypotheses.

For the quantitative strand of this study, the researcher developed and validated a customised survey questionnaire, consisting of Likert-type scaled items, dichotomous items and open-ended questions, in order to determine employers' perspectives and attitudes as well as other factors that contribute to the exclusion of persons with physical disabilities from employment. An online survey service provider was contracted to programme the questionnaire for online distribution, via electronic mail, to the sample of formal private sector employers. The data obtained were amendable to statistical analysis for interpretation of the results. Exploratory factor analysis (EFA) and structural equation modelling (SEM) followed the descriptive and inferential statistical analyses.

5.4.2 Characteristics and types of quantitative research designs

5.4.2.1 Characteristics

According to Johnson and Onwuegbuzie (2004), quantitative research focuses on deduction, confirmation, theory or hypothesis testing, explanation, prediction, standardised data collection and statistical analysis.

Johnson and Onwuegbuzie (2004) divulged the strengths of quantitative research as follows: is useful for testing and validating existing theories about how and why phenomena occur and for testing hypotheses formulated before data collection occurs; data based on random samples of adequate size can produce generalisable results and allow quantitative predictions to be made; the confounding influence of many variables can be removed and cause-and-effect relationships determined credibly; exact quantitative and numerical data are forthcoming rapidly with statistical computer software programs; and large numbers of people can be studied. Conversely, the weaknesses entail the following, inter alia: The occurrence of phenomena may be forfeited owing to the focus on theory or hypothesis testing as opposed to their generation; and the knowledge produced may be too theoretical for practical application.

In this study, the quantitative strand of the convergent mixed methods research endeavoured to test existing theories and new hypotheses about the causes of exclusion of persons with physical disabilities from the workplace, from the perspective of a fairly large sample of formal private sector employers. To enable credible predictions about these causes, established statistical procedures were implemented with the aid of sophisticated statistical computer software programs, including chi square tests, exploratory factor analysis (EFA) and structural equation modelling (SEM). In order to add depth to the quantitative data, a number of open-ended questions, alongside the closed ones, were contained in the customised survey questionnaire which enabled elaboration on employers' responses. Their suggestions about improving the employment rate of persons with disabilities were anticipated to be usable in disability-related policy formulation.

5.4.2.2 Types of quantitative research designs

There is a plethora of quantitative research designs, developed over several decades, of which surveys and experiments are the predominant forms. In the case of this study, an online customised survey questionnaire was designed and distributed to South African formal private sector employers.

5.4.3 Quantitative research design

There is a voluminous body of research that describes the abundance of methods employed by the numerous quantitative research strategies. According to Creswell (2009), quantitative measuring instruments usually comprise predetermined closed-ended questions based on the variables identified and hypotheses formulated. They gather numerical data for statistical analysis and interpretation.

5.4.3.1 *Sampling of research participants*

Purposive sampling is one of the non-random sampling techniques and involves locating subjects who meet specific criteria to participate in a study (Hibberts, Johnson, & Hudson, 2012).

In this study, purposive sampling was applied, defined by Kerlinger and Lee (2000, p. 179) as follows:

The use of judgement and a deliberate effort to obtain representative samples by including presumably typical areas or groups in the sample.

The type and size of the sample should be adequate for the chosen research design (O’Cathain, 2010). In her thesis on disability employment attitudes and practices in South African companies, Wigget-Barnard (2013) obtained a sample of 86 respondents who reported 14 different job titles which included human resources directors/executives/managers and officers, employment equity managers, financial managers, project managers, a medical officer, a corporate affairs manager and a wellness specialist.

In cases where large purposive samples are required, as was the case in this study, it seems prudent to contract an online survey service provider to distribute a survey questionnaire after it has been programmed for online application. Databases are acquired or developed and maintained by them, containing the details of certain populations, such as incumbents who hold HR positions in a given city, province or country. Once the completed questionnaires are returned, they clean the data by removing incomplete data.

In this study, a purposive sample of employers in the South African formal private sector was obtained for the quantitative strand of the mixed methods research. As alluded to in Chapter 1, the goal was to target individuals who held human resources (HR) positions in private sector organisations and who were involved in

the recruitment and selection of staff. The sample comprised HR directors, HR managers and HR officers, while a few senior managers participated.

5.4.3.2 Data collection in survey research

In line with the research methodology of this study, quantitative data collection, analysis and interpretation are discussed specifically in the context of survey research.

Hox et al. (2008) described a survey as a research strategy in which quantitative data is systematically collected from a relatively large sample which represents the population being surveyed.

The four cornerstones of survey research encompass coverage, sampling, non-response and measurement, which determine the quality of the entire survey process and the data produced. Any survey will be the result of methodological compromises, owing to restraints in terms of costs, resources and survey errors, as well as cultural context and technology. The mode of the survey (e.g. in-person, telephone, mail, email, fax or internet) influences the coverage that can be attained (Hox et al., 2008). Surveys in which data are collected only once are referred to as cross-sections (Stoop & Harrison, 2012).

Babbie and Mouton (2014) contended that surveys are excellent mechanisms for measuring attitudes, perceptions and characteristics of a large population but they are generally weak on validity yet strong on reliability. In survey research, operationalising a construct often involves a series of scale items in a format such as a Likert scale or a semantic differential scale (Hair, Black, Babin, Anderson, & Tatham, 2006). The researcher developed a customised survey questionnaire comprising six-point Likert-type scaled items, dichotomous items and open-ended questions, the latter to augment responses to the closed questions. Likert scales were developed by Rensis Likert, a sociologist at the University of Michigan, in 1932

who sought a method that would produce attitude measures that could be interpreted as measurements on a metric scale (Uebersax, 2006).

The researcher's rationale for this choice of measuring instrument was the wide use of the Likert scale when measuring attitudes in survey research. Furthermore, it consists of multiple items, the average score of which results in a more reliable measure than is possible with a single item (Lavrakas, 2008). Handwerker (1996) stated that Likert scales test whether a number of questions measures a single, underlying concept. Long lists of possible items are subjected to factor analysis in order to identify those items that measure the variable being studied the most effectively. In this study, exploratory factor analysis (EFA) and structural equation modelling (SEM) were undertaken to determine the underlying factors that cause the exclusion of persons with physical disabilities from employment.

In surveys, the answers to questions are measures of those constructs defined by the researcher. Respondents need to grasp the question, retrieve the requested information and translate it into the correct form (Hox et al., 2008). Some researchers argue against offering a neutral or middle position and the "no opinion" option, to avoid respondents choosing no opinion or neutral responses to avoid the cognitive effort of answering (Neuman, 2011).

In this research, for the quantitative strand of the mixed methods research, an electronic, customised cross-sectional survey of the attitudes of formal private sector employers towards the employment of persons with disabilities was designed. These employers were regarded as the primary source of information in respect of employment, including that of persons with physical disabilities. In the customised survey questionnaire, disability was operationalised by means of descriptions of types of physical, neurological, sensory and psychosocial disabilities. Although this study focused mainly on physical disabilities, the other categories of disability were included to adopt a broader approach and also because, in many instances, individuals had more than one type of disability. The survey questionnaire comprised Likert-type scaled items, dichotomous items and

open-ended questions, the contents of which were derived from the literature. The objective was, as Creswell (2009) posited, by converging numerical data from quantitative research with the detail of qualitative research, the phenomenon under study can be better understood. Also, a neutral position was not used in the Likert-type scaled items.

a Stages in questionnaire development

In advancing from theoretical concepts to producing the final questionnaire, Hox et al. (2008) described the following three stages of testing:

- i* The developmental stage: Before formulating survey questions, preparatory work occurs where the subject matter is explored in the extant literature, taking cognisance of cultural and language considerations that could affect respondents' comprehension of the survey questions. The complexity of the topic, related experience and the target population, will determine the duration of this stage.
- ii* The question testing stage: Survey questions are tested to ensure that each individual question meets all the principles of sound questionnaire design and flow.
- iii* The dress rehearsal: The questionnaire as a whole is tested under real survey conditions with a suitable sample to obtain feedback and to establish the time required for completion.

In this study, the literature was explored before the development of the customised survey questionnaire commenced. The purposive sample of formal private sector employers were proficient in English and involved in, inter alia, the recruitment of staff, including persons with disabilities, which qualified them to answer the questions contained in the survey questionnaire. In this research, the question testing stage and the dress rehearsal were combined in a pilot study, involving five experts.

b Pilot testing of the questionnaire

A pilot study is an important step before a survey is administered. The input of others, such as colleagues, may highlight omissions, additional issues and ambiguities (Gideon, 2012). According to Kanjee (1999), open-ended questions might need to be rephrased to ensure understanding on the part of participants.

In a pilot study of a questionnaire, consulting with experts provides useful feedback; it could stimulate critical thinking; and assist to generate hypotheses to be used with other testing methods. Internal researchers, if available, or external experts can be contracted. A panel of three to four experts can be involved, whether in a panel discussion or via electronic mail, with comments typed directly in the questionnaire (Hox et al., 2008).

In this study, the customised survey questionnaire was submitted to a pilot group of ten experts to elicit their feedback on the instrument. Five of these experts responded and their valuable suggestions were included in the refinement and finalisation of the questionnaire. They hailed from academia, the public sector, the corporate sector and private practice in the field of industrial and organisational psychology, specifically, an HR manager in a large automotive plant, a public service director tasked with disability and three industrial psychologists, one of whom was a professor at the time.

c Item analysis

In this study, a customised survey questionnaire was designed to measure the attitudes and perceptions of employers in respect of hiring persons with physical disabilities. Items were written in an unambiguous manner, accompanied by clear instructions, to avoid different interpretations on the part of respondents, and thus increase reliability (Kerlinger & Lee, 2000). The customised survey questionnaire contained a large number of items to enhance the probability of accurate measurement (Kerlinger & Lee, 2000). The aim was not to measure differences

between individuals or groups or to discriminate between high scorers and low scorers, since there were no right or wrong answers (Kerlinger & Lee, 2000). Attitudes and perceptions were measured as opposed to personality traits or cognition, where the difficulty of items would need to be analysed. The researcher subjected the customised survey questionnaire to a pilot study where experts provided their input on the contents and clarity of the items and the structure of the questionnaire. In this research, factor analysis was used to validate the constructs measured. As suggested by Kerlinger and Lee (2000), in determining the construct validity of a measure, it is always helpful to correlate the measure with other measures. Factor analysis is a refined method to ascertain which phenomenon is being measured by the measure and the extent to which it is measured. Factor analysis is indispensable in construct validation and therefore item validation. In this study, the exploratory factor analysis (EFA) was followed by three structural equation models (SEM) to uncover the underlying causes of exclusion of persons with physical disabilities from the workplace.

d Electronic surveys

In the case of this research, an electronic (email) survey was chosen to access a large existing database of potential respondents, specifically employers in the South African formal private sector. Mesch (2012) stated that in email surveys a computer plays a major role in the recruitment of potential respondents, delivery and data collection from actual respondents. The quality of data from an electronic survey depends on the motivation of respondents to participate and the response rates. Response rates appear to be lower in email surveys than in other survey types but can be improved by providing respondents with a concise but interesting brief on the research and appealing to them to respond in order to study a particular phenomenon (Mesch, 2012).

According to Shine and Dulisse (2012), email surveys have a desirable turn-around time, are cost effective in the absence of paper and mailing costs, offer wide geographical coverage and facilitate longer open-ended question responses.

Computer software programs are used to track surveys and associated actions, such as when the survey was opened, replied to and deleted. Conversely, locating the email addresses of likely participants may be difficult, especially in the case of changed addresses or servers, and in some cases, an email survey can be perceived as unsolicited and an invasion of privacy.

In this study, a covering letter accompanied the online customised survey questionnaire comprising, inter alia, the aim of the research, assurance of confidentiality, gratitude for participation and so forth, as contained in Appendix B. Nowadays, the survey questionnaire can be accessed through a link in the email provided to the respondent, as was the case in this research. As alluded to in Chapter 1, an online survey service provider was contracted to acquire a large database of incumbents who held HR positions in formal private sector organisations and to distribute the customised survey questionnaire to them via electronic mail.

e Errors in survey research

Errors in survey research as well as response rates remain a challenge to a researcher and can occur at different levels of the process. According to Bautista (2012), possible survey research errors entail total survey error, incorporating specification errors, processing errors, sampling errors, coverage error, nonresponse error and measurement error. Neuman (2011) identified the following potential errors:

- i* Errors in selecting the respondent which include sampling errors (e.g. using an inappropriate sampling method); coverage errors (e.g. omitting certain groups); and non-responsive errors (e.g. refusal to answer).
- ii* Errors in responding to survey questions which entail non-responsive errors specific to a survey item (e.g. skipped questions); measurement errors caused by the respondent (e.g. poor listening); and measurement errors caused by interviewers (e.g. negligent in reading questions or recording answers). Invalid

responses could be caused by social desirability bias, withholding an opinion as with sensitive topics; selecting a stance but lacking any knowledge or a true opinion on the topic; and false negative responses, caused when a respondent refuses to answer some questions but actually has information or really holds an opinion.

- iii* Survey administration errors which comprise post-survey errors (e.g. mistakes in cleaning or capturing data); mode effects (e.g. differences due to survey method, be it by mail, in person, over the internet); and comparability errors (owing to different survey organisations or nations or time periods which yield different data for the same respondents on the same topics).

The researcher came across doctoral theses related to the topic of disability in which the researchers reported small employer sample sizes. Wigget-Barnard (2013), for example, received 86 completed survey questionnaires. In this study, in order to counter total survey error, the researcher acquired a large database of incumbents who held HR positions in South African formal private sector organisations in different sectors. The coverage was therefore wide. The items were written in a straightforward and transparent manner to avoid misunderstanding, and the participants were accepted as suitable and qualified to respond to the questions put to them. Judging from the voluminous amount of text produced in response to the open-ended questions, it would appear that the participants did not withhold their opinions. However, the response rate was low, which is often the case with online surveys (Mesch, 2012) but still amounted to 342 respondents. In several instances, the participants skipped questions, which culminated in a missing data exercise in preparation for confirmatory factor analysis and structural equation modelling. The data were cleaned and carefully captured at every stage, as described in Chapter 6.

f Response rate and non-response bias

According to Neuman (2011), the total response rate represents the percentage of all respondents in the initial sampling frame who were located, contacted, eligible,

agreed to participate and completed the entire questionnaire. Leedy and Ormrod (2010) emphasised the importance of acknowledging the probable presence of unavoidable bias or contamination of the results and to consider the effect that bias could have on the conclusions.

Conversely, a high response rate could still be biased and not necessarily be representative of the population since non-respondents might be systematically different from the respondents, and this difference could affect the research results (Hibberts et al., 2012). In a meta-analysis of response rates, Cook, Heath and Thompson (2000) found that the salience of the issue or topic being surveyed had a greater impact on response rate than advanced notice, follow-up contacts or monetary incentives, while survey length was not specifically associated with response rates. Apart from the number of contacts, personalised contacts and pre-contacts, response representativeness is more important than survey response rate. In a similar vein, Frohlich (2002) found that response rates are influenced by perceived rigour and relevance. If the study is perceived to be significant and their effort is justified, respondents would be more likely to participate in the survey.

Rogelberg and Stanton (2007) posited that low response rates and therefore non-response bias can limit the generalisability of the research results. However, “oversurveying” has exacerbated the problem of decreasing response rates. Also, there is the implication of non-response by representatives of an organisation when the latter is the sampled unit. In defence of low response rates, Rogelberg and Stanton (2007, p. 198) advanced the following argument:

If a study does obtain a response rate well below some industry or area standard, this also does not automatically signify that the data obtained from the research were biased...In the absence of good information about presence, magnitude, and direction of nonresponse bias, ignoring the results of a study with a 10% response rate – particularly if the research question explores a new and previously unaddressed issue – is just as foolish as assuming that one with a response rate of 80% is unassailable.

Ju, Zhang and Pacha (2012) postulated that some of the respondents in their study may have provided “politically correct” answers while those who chose to respond might have represented employers with awareness of disability issues versus those who did not participate.

In this study, in an effort to enhance the potential response rate, the flow of the questionnaire was effectuated by grouping the questions in order of increasing complexity, commencing with items that covered the status of disability employment in the organisation. The next section contained items relating to the willingness of the employer to employ and accommodate a person with a disability, followed by the section that encompassed items which addressed general societal perceptions about persons with disabilities. The last section afforded the respondents the opportunity to share their views on the causes of and the solutions to the low employment rate of persons with disabilities. In a further attempt to enhance the response rate in this study, a neutral position on the Likert-type scaled items was avoided in an effort to counter possible indecision on the part of a respondent. The language was kept simple to ensure that respondents understood the questions in case English was their second language. The researcher decided to have the questionnaire distributed in the first quarter of the year, since respondents would probably have more time on hand than at year-end. Since the respondents were mainly incumbents who held HR positions, they would have had access to computers and the internet and be eligible and qualified to participate. The database acquired contained up-to-date information on the potential respondents, including their email addresses. The subject line used in the email, “Be part of ground-breaking research on disability”, was intended to motivate potential respondents to participate, while the comprehensive covering letter emphasised appreciation for and the value of their opinions. The sample of potential respondents was deemed reasonably homogeneous, which should have, to a certain extent, countered the problems associated with non-response and bias. Despite reminders and the promise to provide the respondents with the results, the length of the questionnaire, lack of time, sensitivity of the topic, absence from work of potential respondents at the time of distribution and the

absence of employees with disabilities in their organisations, could have been expected to contribute to non-response. When respondents participate on behalf of organisations, especially on sensitive topics, they might be more reluctant to answer survey questionnaires. Furthermore, in the context of South African labour legislation, either refusal to participate or a number of socially desirable responses, might have occurred. Despite all the endeavours to enhance the response rate, non-response and possible response bias could not be avoided in this study, as discussed in Chapter 6. However, the sample that formed part of the structural equation modelling (SEM) analysis was ample to generate results about the underlying factors associated with the receptivity of employers to hire persons with physical disabilities.

5.4.3.3 Data analysis in survey research

Collected data are fragmented pieces of information requiring statistical methods for analysis to enable the researcher to identify patterns in the data and make inferences relating to the research question (Leedy & Ormrod, 2010)

Durrheim (1999b) referred to statistics as a set of mathematical techniques which enable the researcher to make claims about the nature of the world through principled statistical argument, understood in numerical terms.

The preparation of the data for statistical analysis involves coding, where data are transformed into numerical format and captured in a format suited to a statistical computer package, and cleaned to remove errors in the codes entered (Durrheim, 1999b). In this research, the online survey service provider removed incomplete data from the database before submission to the researcher and, at a later stage, the statistician cleaned the data to remove any errors before the analysis phase commenced.

There exists a multitude of statistical procedures, nowadays implemented predominantly by means of computer software programs. The nature of the data dictates the most appropriate statistical procedures to be applied.

As described in Chapter 6, in this study, descriptive statistics, inferential statistics and data reduction methods, such as EFA and SEM, were applied to the data generated by the quantitative strand of the convergent mixed methods research, which aimed to identify the causes of exclusion of persons with physical disabilities from employment. Skewness, kurtosis, standard deviations, variance and Pearson product moment correlation coefficients were determined to assess the distribution of the factors and the relationship between them, as derived from the EFA. Furthermore, the chi-square test was applied in SEM and in the industrial sector comparisons.

a Descriptive data analysis

Descriptive procedures are implemented to summarise data and discover patterns, enabling understanding and communication, as was the case in this study. The product is called descriptive statistics which includes univariate analysis of one variable at a time by examining central tendency (modes, medians, means), frequency tables and correlations (Teddlie & Tashakkori, 2009). A frequency distribution produces a summary of the scores, often presented in a bar graph or pie chart (Durrheim, 1999b). Furthermore, the researcher seeks to describe the distribution of scores in terms of shape (skewness or symmetry), variability (range and variance), central tendency (modes, medians and means) and the square root of the variance (standard deviation) in order to understand the average degree of dispersion of a set of values (Durrheim, 1999b).

The researcher is usually interested in the direction and strength of the relationship between variables. The slope of the regression line on the scatter plot indicates the direction while the strength is mathematically calculated by the correlation coefficient which can range from -1.0 to 1.0 (Durrheim, 1999b). Historically, in

psychology, a large correlation is deemed to be about .50 or above, a moderate correlation to be about .30, and a small correlation to be about .10. It is rare to obtain correlations that exceed .40. Even if one variable presumably causes another, it will not be the only cause (Aron, Coups, & Aron, 2013).

b Inferential data analysis

Inferential statistics are used to draw inferences about populations based on data obtained from representative samples, taking cognisance that random variance exists between individuals on measures and between different samples drawn from a population. Inferential statistics are used to estimate population characteristics or parameters (e.g. the mean) and to test hypotheses, which are “educated guesses” or expectations about differences between groups in the population or about relationships between variables (Durrheim, 1999b).

Inferential tests can be assigned to two broad categories, namely non-parametric and parametric tests as described.

i Non-parametric statistical techniques

Non-parametric statistical techniques focus on the order or ranking of scores but exclude the numerical properties of numbers at interval and ratio scales. The median is the non-parametric statistic for the measure of central tendency. Examples of non-parametric statistics include Spearman’s rank order correlation (Spearman’s rho); Kendall’s coefficient of concordance; contingency coefficient; and Kendall’s tau correlation. Non-parametric statistics for testing a statistical hypothesis include the sign test; the Mann-Whitney U; the Kruskal-Wallis test; Wilcoxon’s matched-pair signed rank test; the chi-square test; the odds ratio; and Fisher’s exact test (Leedy & Ormrod, 2010). The chi-square test was applied in this study to determine the impact of industrial sector on hiring persons with physical disabilities.

Since the chi-square test featured in this study, both in the industrial sector comparisons and in SEM, description of this technique was considered prudent. Chi-square is used with categorical (nominal or ordinal) data in the form of frequency counts, with at least two categories involved, to test whether the frequency counts in the various categories could be by chance or whether a relationship exists. One-sample chi-square compares the frequencies obtained in each category with a known expected frequency distribution while two-sample chi-square uses a cross-tabulation or frequency table with the possible combinations of categories of these two variables. The aim is to calculate the disparity between the actual frequencies in the data and what the frequencies would be if the null hypothesis were true. The greater the disparity is, the larger the value of chi-square and the more the findings are statistically significant (Howitt & Cramer, 2011). The degrees of freedom are calculated. The minimum value of a chi-square is 6.0, which is required to be significant at the 5% level for the degrees of freedom, hence the hypothesis that the samples came from the population defined by the null hypothesis is rejected (Howitt & Cramer, 2011). The chi-square tests of independence do not require the assumption of normal population variances but scores must not be related. Chi-square tests cannot be used when the same people are being tested more than once. None of the expected frequencies should be less than 5 for chi-square test results to be valid (Aron et al., 2013).

In this study, the chi-square test was applied for the comparison of industrial sectors in respect of certain dimensions to determine receptivity to employing persons with physical disabilities. Column proportions were compared using Bonferroni adjustment for p-values to serve as post hoc tests. When performing a series of tests, the Bonferroni adjustment is used to adjust the selected alpha level to control for the overall Type I error rate. A new critical value is determined by dividing the proposed alpha rate by the number of statistical tests performed (Hair et al., 2006). Furthermore, chi-square tests were used in this study for the analyses of the fit indices of the three SEM models.

ii Parametric statistical techniques

Parametric tests require variables to be measured on interval or ratio scales and make assumptions about populations, such as a normal distribution of characteristics or that two populations have equal variances. Parametric statistics are applied to determine correlations such as the Pearson product moment correlation or to test statistical hypotheses by means of factor analysis and SEM (Durrheim, 1999b), as was the case in this study.

c Exploratory factor analysis (EFA)

To reduce complex data sets, three multivariate procedures are implemented by researchers, namely cluster analysis, factor analysis and multidimensional scaling to identify patterns of relationships in a data set, but factor analysis and multidimensional scaling are undertaken to identify factors which are hypothesised to underlie the patterns, with covariance or a correlation matrix being the focus (Tredoux & Pretorius, 1999). In this study, exploratory factor analysis (EFA) and structural equation modelling (SEM) were conducted and therefore both are described in some detail.

Tredoux and Pretorius (1999) proffered the following definition:

Factor analysis is a statistical technique used to identify a relatively small number of factors that underlie the relationships between a set of variables, and is useful for condensing a mass of correlations or summarising a large correlation matrix.

The aim is to establish whether a wide range of variables could be adequately represented by a small number of underlying dimensions for practical application. The required steps constitute calculating the intercorrelations between the variables, extracting initial factors and rotating the factors to obtain a clearer picture of the factors (Tredoux & Pretorius, 1999). Thus, factor analysis reduces the data to investigate the pattern of correlations between the variables and then produces

new variables called factors, which in turn, explain the correlations (factor loadings), ranging from -1.0 to 0.0 to +1.0. Since most psychological measurements vary, including the factors extracted from EFA, confirmatory factor analysis (CFA) is used to confirm that these factors are robust and not the result of random variability in the data. To calculate correlations for factor analysis, Pearson's product moment correlation coefficient is used (Howitt & Cramer, 2011).

The main assumption of factor analysis entails that an underlying structure exists in the set of selected variables. However, the observed patterns must be valid and appropriate for factor analysis; the sample must be homogeneous; and the variables must be adequately intercorrelated to generate representative factors (Hair et al., 2006). For reliability, the generally accepted lower limit for Cronbach's alpha is 0.70, but it may decrease to 0.60 in the case of exploratory research (Hair et al. 2006).

In this study, the logical next step following the analyses of the descriptive statistics, was to conduct EFA in order to reduce the mass of data and ascertain whether latent factors could be uncovered from the data for further analysis and interpretation. Specifically, such latent factors would presumably underpin the causes of negative attitudes and perspectives, on the part of employers, that culminate in exclusion of persons with physical disabilities from employment, in line with the research aims.

i Sample size

Factor analysis generally requires a minimum of five participants per item, or 100 participants in total (Cone & Foster, 1993). Hair et al. (2006) proposed a minimum of 50 observations and the sample size should preferably be 100 or larger.

In this study, 342 employers responded to the customised survey questionnaire which contained 68 questions but 106 including sub-questions.

ii Factorability of the correlation matrix

The variables in a study need to be adequately intercorrelated to generate representative factors. To ascertain whether factor analysis is appropriate, visual inspection should reveal correlations greater than .30 but an alternative entails Bartlett's test of sphericity which examines the entire correlation matrix (Hair et al. 2006).

In this study, those items contained in the customised survey questionnaire which addressed the receptivity of employers to hire persons with physical disabilities were selected for factor analysis. The factorability of the correlation matrix was investigated using the Pearson product-moment correlation coefficient. The Kaiser-Meyer-Olkin value was 0.760, which fell above the recommended minimum value of 0.6 (Kaiser, 1970; Kaiser, 1974). Bartlett's test of sphericity (Bartlett, 1954) reached statistical significance at $p < .001$. The correlation matrix was therefore deemed factorable.

iii Communalities of items

The total amount of variance that a particular variable shares with all the other variables being analysed, is referred to as communality, based on its correlations with all the other variables as represented by the factors derived. A guideline would be that all variables with communalities of less than .50 lack adequate explanation by the factors, while those variables with communalities greater than .50 should be retained (Hair et al., 2006).

iv Selection of a factor extraction method

Principal components analysis (PCA) is applied to reduce a large set of variables to a small number of factors which summarises the patterns of correlations in the data (Tabachnick & Fidell, 2007).

In this study, PCA was selected as the factor extraction method to produce a new set of variables (factors) based on the interrelationship between the initial large set of variables.

v Eigenvalues

An eigenvalue entails the column sum of squared loadings for a factor and indicates the amount of variance explained by each factor. Only factors with eigenvalues greater than 1.0 are deemed significant (Hair et al., 2006). Eigenvalues and components can be listed on a scree plot (Tredoux & Pretorius, 1999). Costello and Osborne (2005) referred to using eigenvalues greater than 1, as the Kaiser criterion. The decision about how many factors to retain for rotation should be based on the scree test. As described by Hair et al. (2006), the scree test identifies the optimum number of factors that can be extracted before the amount of unique variance begins to override the common variance structure. The eigenvalues against the number of factors in their order of extraction, and the shape of the resulting curve of the scree test is used to evaluate the cut-off point. The maximum number of factors to extract is indicated by the point at which the curve begins to level out (Hair et al., 2006).

In this study, eigenvalues of 1.0 and higher were used to retain factors, illustrated on a scree plot, as discussed in Chapter 6.

vi Selection of a rotation method

The relationship between the variables and the factors is indicated by correlation coefficients referred to as factor loadings and the matrix of factor loadings is called a factor matrix. The ideal factor solution would be one in which each variable would load on (correlate with) only one factor. However, most variables correlate with more than one factor. Next, the factors are rotated to achieve a structure that is easier to interpret by using one of two rotation procedures, namely orthogonal and oblique. Orthogonal rotation methods are based on the assumption that factors are

uncorrelated, while oblique methods assume that factors might be correlated. Factor matrix loadings of less than, say, 0.35 can be omitted, which provides a clearer indication of which variables load on the various factors (Tredoux & Pretorius, 1999). However, Aron et al. (2013) posited that in psychology, researchers tend to view the contribution of a variable to a factor as meaningful only if it shows a loading of at least above .30 or below -.30. The subjective part of the process is the name the researcher assigns to a factor, which should describe what the variables have in common that constitute the particular factor.

The goal of rotation is to simplify and clarify the data structure. Varimax, quartimax and equamax are orthogonal methods of rotation, while direct oblimin, quartimin and promax are oblique. Orthogonal rotations generate uncorrelated factors but with oblique methods factors may correlate. Behaviour does not appear in neatly packaged units that function independently of one another. Hence orthogonal rotation results in a loss of valuable information if the factors are correlated, and oblique rotation should theoretically provide a more accurate solution. However, should the factors be uncorrelated, orthogonal and oblique rotations produce comparable results (Costello & Osborne, 2005).

In this study, promax, which is an oblique rotation method, was used. As described by Kieffer (1998), this method accommodates correlations between the latent constructs and is termed oblique since the angles between the factors become greater or smaller than 90 degrees. The aim is to attain the most parsimonious simple structure, since the factors are allowed to be correlated with one another. Promax is often the oblique rotation option of choice, as it is relatively simplistic, provides satisfactory solutions and tends to produce more replicable results than the direct oblimin rotations.

vii Outliers

Outliers are measures with a combination of characteristics that is markedly different from the other measures in the study, identifiable by an unusually high or

low value on a variable. The challenge is whether an outlier should be retained or removed, in light of its impact on the results and likely misleading representation of the relevant population (Hair et al., 2006). According to Kline (2011), the removal of outliers enhances the reliability of the results.

In this study, the items that remained after the EFA, were analysed to assess outliers. Upon visual inspection of box plots for each of the components, outliers were identified. Given further investigation of the raw data, it was established that the outliers were random across sectors and that adequate representation was maintained in the case of all, including small, sectors after removal of the outliers. Outliers with a large number of non-responses to items were deleted, and in instances with only a few missing responses, the sample mean for the particular item was used to impute a score. Box plots were used to identify outliers. A box plot represents the major portion of the data distribution of a variable as well as the extensions (whiskers) that reach the extreme points of the distribution (Hair et al., 2006).

viii Kurtosis and skewness

Kurtosis and skewness indicate deviation from the normal distribution. Kurtosis entails the height of the distribution compared with the normal distribution. When the kurtosis is taller or more peaked than the normal distribution, it is termed leptokurtic, and if flatter, platykurtic. Skewness describes the balance of the distribution, be it shifted to the left or right side or centred and symmetrical. A positive skew denotes a distribution shifted to the left, whereas a negative skewness reflects a shift to the right (Hair et al., 2006). The values of skewness and kurtosis are zero in a normal distribution. A variable with significant skewness often does not deviate enough from normality in the case of a large sample, to substantially impact on the analysis. Underestimations of variance associated with positive kurtosis disappear with samples of 100 or more cases, while underestimation of variance disappears with samples of 200 or more in the case of negative kurtosis (Tabachnick & Fidell, 2007).

In this study, the kurtosis and skewness emanating from the EFA, indicated a deviation from the normal distribution in respect of the values of skewness and kurtosis, but the sample was large enough, consisting of 295 cases following the missing data analysis executed in preparation for SEM.

d Structural equation modelling (SEM)

Hair et al. (2006) defined SEM as follows:

Structural equation modelling (SEM) is a multivariate technique combining aspects of factor analysis and multiple regression that enables the researcher to simultaneously examine a series of interrelated dependence relationships among the measured variables and latent constructs (variates) as well as between several latent constructs (Hair et al., 2006).

EFA is often followed by confirmatory factor analysis (CFA) to purify the EFA results (Hair et al., 2006), which forms part of the family of SEM and, in turn, often acts as a precursor to other structural models. Structural equation models are recognised by three characteristics, namely the estimation of multiple and interrelated dependence relationships; representation of unobserved (latent) concepts in these relationships and the ability to correct measurement error in the estimation process; and the explanation of the entire set of relationships in the model (Hair et al., 2006)

In this study, three structural equation models were developed, namely SEM 1 (CFA), SEM 2 (a structural model) and SEM 3 (a general structural model) in order to determine the underlying constructs associated with employers' receptivity to employing persons with physical disabilities.

i Characteristics of SEM

CFA entails a method to examine relationships between latent constructs (e.g. attitudes), usually implemented to develop and refine measurement instruments, evaluate construct validity, identify method effects and determine factor invariance

across time and groups. CFA is an important technique in measurement model validation in path or structural analyses (Jackson, Gillaspay, & Purc-Stephenson, 2009). SEM represents simplified approximations to reality measured by fit indices, not hypotheses that might possibly be true (McDonald & Ho, 2002). SEM is used to test theory and thus a true test of a model, not to obtain a “good fit” (Hair et al., 2006). SEM hypothesises that specific indicators (items) measure specific constructs (factors) while each indicator has an independent measurement error term which represents unique, unobserved, random variance (Kline, 2011). A structural equation model comprises a measurement model and a path model. The former represents a set of measurable variables being multiple indicators of a smaller set of latent factors. The latter describes relations of dependency between the latent factors (constructs) (McDonald & Ho, 2002).

Since latent constructs are predicted in SEM, reference is made to exogenous and endogenous constructs. Whether a construct is exogenous or endogenous is determined by theory. Exogenous constructs are latent, multi-item “independent” variables determined by factors outside of the model and use a variate of measures to represent the construct. In a path diagram, an exogenous construct does not have any paths (one-headed arrows) from any other construct or variable pointing at it. Endogenous constructs are latent, multi-item “dependent” variables. These constructs are theoretically determined by factors in the model and therefore dependent on other constructs, represented in a diagram by a path (arrow) from an exogenous construct to an endogenous construct (Hair et al., 2006). The path diagram illustrates dependence and correlational (covariance) relationships. Single-headed directional arrows show a dependence relationship, namely the effect of one construct on another. An exogenous construct has only correlational relationships with other constructs (i.e. no dependence paths entering the construct) and cannot be correlated with an endogenous construct. Only a dependence relationship can occur between exogenous and endogenous constructs. A single structural equation model can contain both dependence and correlational relationships which reflect degrees of association, not “causes” (Hair et al., 2006).

Indicators should, as a set, be internally consistent with positive intercorrelations of at least moderately high magnitude (e.g. $> .50$). Correlations among indicators of the same factor should be greater than cross-factor ones and satisfy convergent validity and discriminant validity in construct measurement. For SEM models with two or more factors, the minimum would generally be two indicators per factor, which is required for identification (Kline, 2011). Each indicator should load on a single factor, while the error terms are independent. If any given indicator loads on two or more factors or if its error term seems to covary with that of another indicator, then multidimensional measurement applies. Where no measurement error correlation exists between two indicators, their observed correlation can presumably be explained by their particular underlying factors. All indicators that measure a common factor should have relatively high standardised factor loadings on that factor, indicating convergent validity (e.g. $> .70$); and estimated correlations between the factors are not excessively high, indicating discriminant validity (e.g. $< .90$ in absolute value) (Kline, 2011).

In this study, each indicator loaded on only one construct and none of the error items covaried with those of other indicators. The constructs had at least two indicators, thus satisfying the two indicator rule (Kline, 2011). Subsequent to the CFA, two more SEM models were developed in this study. The aim was to determine the relationships between the factors produced by the EFA, confirmed by CFA, and the construct of receptivity, particularly receptivity of employers to employing persons with disabilities. In the context of this research, such receptivity can probably be described as a mindset that forms as a product of numerous elements, including organisational characteristics, such as knowledge of disability matters; prospects of gain; return on investment; risk management; availability of resources; foresight; sustainability; available expertise; sense of fairness; habits and traditions; flexibility; readiness for change, diversity and new possibilities; convenience; norms; past experience; prejudice; and empathy.

ii The assumptions of SEM

- (1) The first assumption is that the sample size must be adequate (Tabachnick & Fidell, 2007). The typical sample size in SEM studies is 200 cases. An ideal sample size to parameters ratio would be 20:1 (Kline, 2011). Hair et al. (2006) proposed that the minimum ratio is 5:1, but preferably 15:1 or 20:1.

In this study, the sample size for SEM amounted to 295 cases and the sample size to parameters ratio varied between 1:8 (SEM 1 CFA), 1:9 (SEM 2) and 1:10 (SEM 3).

- (2) Missing data should be appropriately addressed in the SEM analysis (Tabachnick & Fidell, 2007; Hair et al., 2006). The most common methods to treat missing data are listwise deletion and mean imputation (Kline, 2011).

In this study, both listwise deletion and mean imputation were chosen to treat missing data. Listwise deletion was executed in those cases where 12 or more items had missing values, while mean imputation was applied to cases where 11 or fewer values were missing. As indicated, 295 cases remained.

- (3) Regarding multivariate normality, the measured variables are screened for outliers and their skewness and kurtosis examined (Tabachnick & Fidell, 2007).

In this study, certain outliers were removed once it had been established that these were random and not clustered or sector based, especially since some industrial sectors had few respondents. The kurtosis and skewness of the results were reported.

- (4) Multicollinearity and singularity are absent where a variable or variables is/are highly correlated with the others in the set (Tabachnick & Fidell, 2007).

In this study, none of the variables needed to be rejected owing to multicollinearity or singularity.

(5) The model should specify at least three variables (indicators) per factor (construct) (Kline, 2011).

In this study, two of the five constructs were associated with two variables in the SEM 1 (CFA) and SEM 2 models, while one of the four constructs in the SEM 3 model had two variables. Otherwise, there were three to four variables per construct. From an exploratory research point of view, the assumptions of SEM were adequately met by the results of this study.

iii Missing data

The treatment of missing data is of paramount importance in SEM. Missing data are most likely part and parcel of survey research and the researcher needs to address this challenge. Such missing data could be related to both the independent and dependent variable (non-ignorable missingness, MNAR); or to the independent variables but not the dependent variable (missing at random, MAR); or to neither the independent nor the dependent variables (missing completely at random, MCAR). Following the preliminary analysis on whether the data are MCAR, MAR or MNAR, a choice is made about how to handle the missing data by, say, listwise deletion (where any data are missing, the respondent's data are not used). However, unless the data are missing completely at random, the results will produce biased estimates of population parameters in most circumstances. Another option entails mean substitution where the average of other available indicators of a construct, the remaining scale items, is used. This procedure can produce biased results, but the biases are relatively small when the remaining items are highly intercorrelated, meaning high internal consistency. A third approach is to use regression equations to estimate replacement values. A fourth technique involves multiple imputation methods in which many plausible values are generated for each piece of missing data, and the results are then averaged. Finally, maximum

likelihood methods can be adopted, which encompass statistical techniques that use available data to make their best estimates of what the statistical parameters of the population might be. These methods are only suitable when data are missing at random (or completely at random) (Cone & Foster, 1993).

According to Hair et al. (2006), the steps needed to address missing data entail, in essence, assessing whether the missing data are ignorable or not ignorable; establishing the extent of missing data by tabulating the percentage of variables with missing data for each case and the number of cases with missing data for each variable; identifying the randomness of the missing data processes be it MAR and MCAR; and choosing the imputation method from several available alternatives.

In this study, a missing response analysis was conducted and tabulated, followed by the decision to discard the 47 respondents with missing values for 12 or more items. Apart from listwise deletion, mean imputation was applied to cases where 11 or fewer values were missing.

iv Sample size in SEM

In SEM, the sample size required to produce credible results is crucial. Hair et al. (2006, p. 742) offered a number of suggestions in respect of sample size for SEM, which entail the following:

SEM models containing five or fewer constructs, each with more than three items (observed variables), and with high item communalities (.6 or higher), can be adequately estimated with samples as small as 100 to 150; if any communalities are modest (.45-.55), or the model contains constructs with fewer than three items, then the required sample size is more in the order of 200; if the communalities are lower or the model includes multiple underidentified (fewer than 3 items) constructs, then minimum sample sizes of 300 or more are needed to be able to recover population parameters; and when the number of factors is larger than six, some of which use fewer

than three measured items as indicators, and multiple low communalities are present, sample size requirements may exceed 500.

As indicated, in this study, the sample size for SEM was 295 cases and therefore adequate to proceed with analysis and the development of SEM models.

v Model parameter estimation

Following the presentation of the model structure, the parameter estimates are generated by the computer software. All estimated values must fall between -1.0 and +1.0, simplifying identification of inappropriate estimates as opposed to covariances, which have no defined range (Hair et al., 2006). In this study, the parameter estimates in the standardised SEM 1 (CFA) fell between -1.0 and +1.0.

Path diagrams are useful for illustrating the theoretical model structure which enables the specification of the model parameters to be estimated. A number of estimation techniques exist. Maximum likelihood estimation (MLE) is the most widely used approach in the majority of SEM programs. It has proven quite robust to violations of the assumption of normality (Hair et al., 2006). McDonald and Ho (2002) posited that a model is identified if every parameter is identified. The factor loadings should produce independent clusters where each observed variable loads on one common factor only, thus representing a true indicator of the factor and each latent factor should have at least two pure indicators where the factors are correlated and at least three where not.

In this study, MLE was applied. Both conditions indicated by McDonald & Ho (2002) were met as discussed in Chapter 6.

vi Convergent and discriminant validity in SEM

Convergent validity indicates the extent to which two measures of the same concept are correlated (Hair, et al. 2006). High loadings on a factor would mean that they

converge on some common point, while all factor loadings should be statistically significant. The standardised loading estimates (regression weights) should be .50 or higher, and ideally .70 or higher to attain convergent validity (Hair et al., 2006). The square of a standardised factor loading (SMC) indicates the amount of variation in an item that is explained by the latent factor. Thus, a loading of .71 squared equals .50. Therefore, half of the variation in the item is explained by the factor with half being error variance. As loadings fall below .70, they might still be significant, but the variance in the measure is more error variance than explained variance. As an indicator of convergence, the average percentage of variance extracted (VE) among a set of construct items is calculated as the total of all squared standardised factor loadings (squared multiple correlations) divided by the number of items, thus producing the average squared factor loading. A VE of .50 or higher suggests sufficient convergence and a VE of less than .50 indicates that more error variance remains in the items than variance explained by the latent factor structure imposed on the measure. In a measurement model, the VE for each latent construct should be calculated.

Discriminant validity entails the extent to which two conceptually similar constructs are truly distinct. When a construct is unique and captures some phenomena which other measures do not, discriminant validity is high. To test discriminant validity, the variance-extracted estimates should be greater than the squared correlation estimate, since a latent construct should explain its indicators better than it explains another construct. Discriminant validity also implies an absence of cross-loadings of measured items (Hair et al., 2006).

In this study, convergent and discriminant validity in respect of the factor loadings and the SMC values were addressed as they pertained to the three SEM models, as discussed in Chapter 6.

Numerous fit indices are discussed in the literature as they pertain to SEM, usually broadly classified as absolute, incremental, relative, parsimony and non-centrality fit indices (Newsom, 2017). In SEM, the aim was to develop a model that fits the data and a non-significant chi-square was desired. However, chi-square values depend on sample size and, in the case of models with large samples, trivial differences often cause the χ^2 to be significant solely because of sample size. Several fit indices have been developed that examine model fit, while eliminating or minimising the effect of sample size (Tabachnick & Fidell, 2007).

In this study, the fit indices applicable to the three SEM models, generated by the computer software program, included absolute fit indices (CMIN, CMIN/DF, RMR/GFI and RMSEA), parsimony-adjusted measures (PRATIO, PNFI and PCFI) and incremental fit indices (NFI, RFI, IFI and TLI).

The most frequently found indices in the literature include the following:

- (1) CMIN (minimum discrepancy). This index entails the discrepancy between the unrestricted sample covariance matrix and the restricted one, which depicts the likelihood ratio test statistic, usually expressed as a chi-square statistic. In large samples, this statistic is distributed as a central χ^2 with degrees of freedom equal to $\frac{1}{2}(p)(p+1)-t$, where p represents the number of observed variables, and t indicates the number of parameters to be estimated. The null hypothesis postulates that specification of the factor loadings, factor variances, covariances and error variances for the particular model is valid. At the same time, the χ^2 test tests the extent to which this specification is true. The probability value associated with χ^2 indicates the likelihood of obtaining a χ^2 value that exceeds the χ^2 value when the null hypothesis is true. Thus, the stronger the probability associated with χ^2 , the closer the fit between the hypothesised model and the perfect fit (Byrne, 2004).

- (2) Goodness-of-fit statistic (GFI)/Root mean square residual (RMR). GFI produces the proportion of variance that is explained by the estimated population covariance (Tabachnick & Fidell, 2007). Examining the variances and covariances demonstrated by the model, shows the degree to which the model replicates the observed covariance matrix. In the event of a large number of degrees of freedom in comparison with sample size, the GFI has a downward bias. The GFI could increase as the number of parameters increases and shows an upward bias in case of large samples (Hooper, Coughlan, & Mullen, 2008). The root mean square residual (RMR) comprises the square root of the difference between the residuals of the sample covariance matrix and the hypothesised covariance model. Based on the scales of each indicator, the range of the RMR is calculated (Hooper et al., 2008).
- (3) Root mean square error of approximation (RMSEA). RMSEA shows how accurately the model, with unknown but optimally chosen parameter estimates, would fit the covariance matrix of the population being studied. The RMSEA favours parsimony and would opt for the model with the smaller number of parameters. RMSEA enables a confidence interval to be calculated around its value because of the known distribution values of the statistic, and thus allows for the null hypothesis (poor fit) to be tested more precisely (Hooper et al., 2008). The motivation for the non-centrality parameter is that the usual chi-square fit is based on a test that the null hypothesis is true ($\chi^2 = 0$), which provides a distribution of the central chi-square. Since, in structural modelling, researchers endeavour not to reject the null hypothesis, they should test to reject the alternative hypothesis. Such a test would entail statistical decisions using the non-central chi-square distribution where the alternative hypothesis is assumed to be true in the population (i.e. an incorrect model in the population). A chi-square equal to the df renders the model as having a perfect fit (as opposed to chi-square equal to 0). Thus, the non-centrality parameter estimate is obtained by subtracting the df of the model from the chi-square ($\chi^2 - df$) (Newsom, 2017).

- (4) Parsimony-adjusted fit indices. These indices include the parsimony goodness-of-fit index (PGFI) and the parsimonious normed fit index (PNFI), both of which adjust for degrees of freedom and penalise for model complexity, which results in parsimony fit index values that are much lower than other goodness of fit indices. No threshold levels have been forthcoming for these indices (Hooper et al., 2008). Parsimony-corrected fit indices are incremental fit indices that entail adjustments to most of the fit indices in order to penalise models that are less parsimonious. The more complex the model, the lower the fit index that will transpire (Newsom, 2017).
- (5) Incremental fit indices. These indices, also called comparative or relative fit indices, do not use the chi-square in its raw form, but compare the chi-square value to a baseline model. The null hypothesis states that all variables are uncorrelated in these models. The normed-fit index (NFI) compares the χ^2 value of the model to the χ^2 of the null model. However, this index is sensitive to sample size and underestimates fit in the case of a sample of less than 200. The non-normed fit index (NNFI, also called the Tucker-Lewis index), prefers simpler models. However, in the case of small samples, the value of the NNFI can indicate poor fit despite other statistics indicating good fit (Hooper et al., 2008). The comparative fit index (CFI) is a revised form of the NFI, which performs well even when the sample size is small (Tabachnick & Fidell, 2007). The CFI, like the NFI, assumes that all latent variables are uncorrelated and compares the sample covariance matrix with the null model. This index is included in all SEM programs, since it is one of the measures least affected by the sample size (Hooper et al., 2008).

Based on the work of several authors, namely Albright and Park (2009); Barrett (2007); Byrne (2004); Hair et al. (2006); Hooper et al. (2008); Jackson et al. (2009); McDonald and Ho (2002); Newsom (2017) and Tabachnick and Fidell (2007), the researcher compiled the following table for ease of reference to fit index criteria in assessing how well the model specified fits the observed data.

Table 5.1

Fit indices criteria

Fit Index	Range	Acceptable cut-off value to accept the model	Ideal cut-off value
CMIN/DF (χ^2)		χ^2 : df <2. Small χ^2 value & large p value i.e., no differences between estimated and observed data matrices	Non-significant Chi square = good fit, large Chi square = poor fit
GFI/RMR	0-1	>.9	1.0
RMSEA		.06 - .08	≤ .05 & below
Parsimony-adjusted	0-1	.50 - .740	No threshold levels measured
CFI/TLI/NFI	0-1	.90 minimum (value can be <0 & >1.0)	Close to 1.0, .95

Sources: Albright and Park (2009); Barrett (2007); Byrne (2004); Hair et al. (2006); Hooper et al. (2008); Jackson et al. (2009); McDonald and Ho (2002); Newsom (2017); Tabachnick and Fidell (2007).

As cautioned by MacCallum and Austin (2000), no pure models exist and all are wrong to an extent, but the researcher should endeavour to identify a parsimonious, meaningful model that fits the observed data adequately and acknowledge that there are probably other models that fit the data to a similar extent.

e Statistical significance testing

The statistical significance of a relationship between variables is expressed in terms of probabilities. Significant at the 0.05 level ($p \leq 0.05$) means that the probability of a relationship as strong as the observed one being the result of chance or sampling error alone is no more than 5 in 100. In the social sciences, the chi-square (χ^2) is a frequently used test of significance. It is based on the assumption that there is no relationship between the two variables in the total population, known as the null hypothesis (Babbie & Mouton, 2014). Studies in the social sciences often have too few research participants relative to the true size of

the mean difference and the true size of the population variance, which could result in failure to reject false hypotheses, known as a lack of statistical power. A counter measure is to report confidence intervals around estimates of parameters, for example, 95% confidence that the true value of the population mean lies in this interval (Tredoux & Smith, 1999).

In this study, the 5% level of statistical significance was applied in respect of all of the statistical measures generated.

5.4.3.4 *Data interpretation in survey research*

Interpreting data involves linking the results or findings to the research problem, research questions, hypotheses, existing literature, concepts, theories and research studies; and establishing whether the results or findings have statistical significance and practical application (Leedy & Ormrod, 2010).

In this convergent mixed methods research study, the results of the quantitative strand and the findings of the qualitative strand were interpreted separately and then compared, linked, contrasted, integrated and related to the research problem, research questions and aims, hypotheses and related theory as contained in the literature review. Trends that emanated from the results and findings were explained in respect of convergence and divergence, incorporating unexpected findings, contradictions and rival explanations (Mouton, 2001). Meta-inferences were then formulated (Venkatesh et al., 2013).

5.4.4 Validation of quantitative research

A voluminous body of scholarship covers the psychometric properties of validity and reliability, particularly in the context of quantitative measurement results, including surveys.

5.4.4.1 *Validity*

Three types of validity are required in research, namely content validity, which determines whether the items measure the content they were intended to measure; predictive or concurrent validity, to establish whether the scores predict a criterion measure and whether the results correlate with other results; and construct validity, to assess whether items measure hypothetical constructs or concepts. Construct validity takes up a prominent position since it centres on whether the data are useful for favourable outcomes in practice (Creswell & Creswell, 2018). Overall, validity refers to the extent to which an instrument measures the variable it purports to measure (Kerlinger & Lee, 2000).

Construct validity entails the extent to which an instrument measures a characteristic (construct) that cannot be directly observed but is assumed to exist based on patterns of behaviour. When behaviours are observed to evaluate an underlying construct, proof is required that the chosen method measures the construct in question (Leedy & Ormrod, 2010). To determine the construct validity of a measure, it is advisable to correlate the measure with several other measures and identify its correlates. Factor analysis is a powerful method to assess construct validity since it indicates which measures measure the same concept and the extent to which they measure the concept (Kerlinger & Lee, 2000).

In this study, the customised survey questionnaire that was distributed to employers, contained Likert-type scaled items, dichotomous items and open-ended questions, the latter intended to augment the responses to the closed items. According to Joshi, Kale, Chandel and Pal (2015), the validity of a Likert scale is determined by the applicability of the topic being investigated to the understanding and context of the respondents as well as the judgement of the item designer. Preston and Coleman (2000) reported that the rating scales in their study, which yielded the least reliable scores, turned out to be those with the fewest response categories.

A component of validity encompasses generalisability of the results. Creswell and Creswell (2018) described generalisability as the external validity of applying research results obtained to other settings, samples and individuals. Generalisability is necessary for general theoretical claims or to describe populations, since the laws of behaviour are assumed to be universal. In survey research, where representative samples are drawn, generalisability applies to other samples and populations, not to other situations or contexts (Durrheim & Wassenaar, 1999).

In this study, a convergent mixed methods research strategy was adopted, consisting of a quantitative strand and a qualitative strand. The quantitative strand emanated from an online customised survey questionnaire, of which the contents were based on the literature review, distributed to South African formal private sector employers in order to ascertain their perspectives and attitudes towards the employment of persons with physical disabilities. The questionnaire was also submitted to a group of experts in order to canvass their comments on the representativeness or content validity of the items, especially since the items were constructed to ensure transparency. EFA and SEM were implemented which established the construct validity and concurrent validity of the results. The specific steps taken by the researcher to ensure the validity of the results were described earlier in this chapter in the section on the trustworthiness of mixed methods research data.

5.4.4.2 Reliability

Reliability is also referred to as dependability, stability, consistency, reproducibility, predictability and lack of distortion. The reliability of a measuring instrument refers to its ability to yield the same results when applied repeatedly to the same set of objects or subjects. The extent to which error of measurement occurs, specifically systematic variance and random or error variance, determines the reliability of the instrument, but reliable measures do not necessarily mean that the target construct is being measured. However, Cronbach's coefficient alpha is calculated to

determine the internal consistency of instruments that contain different scoring and response scales, including instruments that use Likert-type scales (Kerlinger & Lee, 2000). Croasmun and Ostrom (2011) emphasised the importance of calculating Cronbach alpha coefficients for internal consistency reliability in order to establish the relationship between all the items and their relationship with the total instrument. The “interpretability” of a test score is improved if the score has a high first-factor concentration. While a high alpha is preferable, a test need not approach a perfect scale to be interpretable. According to Cronbach (1951), items with reasonably low intercorrelations can still produce an interpretable scale. The Cronbach’s alpha statistic measure of internal consistency for scaled items is widely used. These reliability statistics range from 0 to 1 and, usually, for personality or attitude scales, the internal consistency coefficient should be 0.70 or greater, but when measuring ability, the coefficient for scales should be 0.90 or greater (Kanjee, 1999).

The specific steps taken by the researcher to ensure the reliability of the results, were described earlier in this chapter in section 5.3.5 on the trustworthiness of mixed methods research.

5.5 QUALITATIVE RESEARCH

5.5.1 Origin, definition and description

5.5.1.1 Origin

As described by Babbie and Mouton (2014), qualitative research studies, specifically field research, originated in the domain of anthropology. Bronislaw Malinowski (1884–1942) is generally regarded as the first anthropologist who undertook participant observation in the modern meaning of the word. The single most important time in the history of the qualitative paradigm is the period between 1915 and 1940 and, in particular, the research conducted at the Department of Sociology at the University of Chicago, which departed from the social survey movement and created an independent collection of methods, inspired by the

pragmatist philosophy of John Dewey and his students. He left a legacy of pragmatism and a concern for concrete, empirical fieldwork.

5.5.1.2 Definition and description

Creswell and Creswell (2018, p.4) defined qualitative research as follows:

An approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. The process of research involves emerging questions and procedures, data typically collected in the participant's setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data.

Qualitative research involves the collection of data by means of a case study, personal experience, introspection, life stories, interviews, artefacts, cultural texts and observational, historical, interactional and visual texts that describe ordinary and challenging moments and meanings in the lives of individuals (Denzin & Lincoln, 2000). Qualitative research centres on understanding of and reflection on others' richly textured experiences. The core of the discussion between the researcher and the participants are rich descriptions and details (Jackson, Drummond, & Camara, 2007). Qualitative research undertakes to understand (verstehen) human phenomena in context through its methodology (Terre Blanche & Kelly, 1999).

Qualitative, interpretive research constitutes a specific ontology, epistemology and methodology, based on the assumption that subjective experiences are real and should be acknowledged (ontology), that human experiences can be comprehended through interaction and listening (epistemology) for which qualitative research enquiry best suits this task by analysing text content (methodology) (Terre Blanche & Kelly, 1999).

Qualitative research rests on the assumptions that multiple constructed realities exist; generalisations are not and should not be independent of time and context; research is obligated to add value; causes and effects cannot be fully differentiated; reasoning moves from the specific to the general; induction applies to explanations; descriptions of the data are detailed, rich and thick; the focus is on understanding and portraying individual and social group differences in respect of their perspectives; and the same phenomenon has multiple valid angles as well as contradictions (Johnson & Onwuegbuzie, 2004). Kelliher (2005) added that there is a better opportunity to understand others' perceptions of their own activities, when they remain in their social context.

As divulged in the previous sections of this chapter, in this study, the researcher adopted a convergent mixed methods research strategy to identify the causes of exclusion of persons with physical disabilities from employment. The researcher needs to reiterate that, although employers' responses formed the quantitative strand and those of persons with physical disabilities formed the qualitative strand, three sets of qualitative responses were generated, namely employers' responses to the open-ended questions contained in the customised survey questionnaire, the responses of persons with physical disabilities to the telephonic structured interview questions and the responses to three questions of advocacy organisations and associated groups, although they did not form part of the mixed methods research. All of these qualitative responses were subjected to thematic content analysis. Furthermore, the data were transformed into numerical codes, where possible, and illustrated in frequency tables, while data extracts (quotes) served to support the findings. In the interest of inclusiveness and in accordance with the motto of DPSA "Nothing about us without us", the perspectives of certain disability advocacy organisations and associated groups (disability placement agencies and occupational therapists) were also canvassed, pertaining to the causes of exclusion of persons with disabilities from the workplace and possible interventions to address this state of affairs. Owing to the sensitivity of the topic, it was envisaged that the quantitative strand would provide width of data and the

qualitative strand would facilitate depth of data about the causes of exclusion of persons with physical disabilities from employment.

5.5.2 Characteristics and types of qualitative research designs

5.5.2.1 Characteristics

There are several qualitative research designs with wide variations in their leading theory and set of chosen procedures. Chesebro and Borisoff (2007) identified the characteristics of qualitative studies as research being conducted within a natural setting pertaining to the geographical location, time and set of rituals determined, mainly by the participants; the researcher participates and is perceived by the participants as a significant part of the process; the participants identify subjects for discussion and provide transitions from one topic to another; the researcher intentionally aims to capture the communication and symbols used by participants; and the findings provide instant understanding and can be utilised immediately to address an existing social problem.

Furthermore, Janesick (2000), described the characteristics of qualitative designs as being holistic, since it focuses on the bigger picture and pursues an understanding of the whole within given settings; it centres on models in the social setting and relationships within systems or cultures; personal, face-to-face, present conditions are analysed; it does not necessarily attempt to make predictions; the role of the researcher and personal biases and beliefs are described; and a narrative is written in which various stories of the participants are incorporated.

Johnson and Onwuegbuzie (2004) explained the strengths and weaknesses of qualitative research. The strengths entail, inter alia, that qualitative data are based on categories of meaning emanating from the participants; it enables a limited number of individual cases to be examined in depth, including complex phenomena; cross-case comparisons and analysis can be undertaken; understanding and description of others' personal experiences of phenomena as well as their

interpretation of constructs are made possible as embedded in particular contexts or natural settings; contextual and setting factors are identified and sequential patterns and change are recorded; it serves to generate an explanatory theory about a phenomenon, through induction; the focus of a study can shift if change occurs during its course; and it can determine the causes of a particular event. The weaknesses encompass, inter alia, that the findings may not be generalisable to other individuals or other settings; formulating quantitative predictions or testing hypotheses and theories would be challenging; it generally takes considerable time to collect as well as analyse the data; and traits unique to the researcher could influence the findings.

In this study, the researcher chose a convergent mixed methods research approach, with a quantitative and a qualitative strand, based on the strengths of both methods. Words (text) could augment the meaning of the quantitative data; mixed methods research could answer all the research questions of the study; the weaknesses of quantitative data (width) could be surmounted by qualitative data (depth); convergence and corroboration of results and findings could support credible conclusions drawn and enable generalisability to similar populations; and the research problem could be addressed more comprehensively (Johnson & Onwuegbuzie, 2004). Thus, the weaknesses were outweighed by the strengths.

5.5.2.2 Types of qualitative research designs

Janesick (2000) indicated the types of qualitative research designs as encompassing, inter alia, ethnography; life history; oral history; ethno methodology; case study; participant observation; field research or field study; naturalistic study; phenomenological study; ecological descriptive study; descriptive study; symbolic interactions study; micro ethnography; interpretive research; action research; narrative research; historiography; and literary criticism. Qualitative research is inspired by the ideology of the researcher and there is no design free of bias.

In this study, a convergent mixed methods research strategy was adopted with a quantitative and a qualitative strand of which the latter was based on hermeneutic text analysis of participants' responses.

5.5.3 Qualitative research design

As alluded to in previous sections, in this study, a convergent mixed methods research approach was adopted. The quantitative strand was formed by means of a customised survey questionnaire, containing both quantitative and qualitative items, which was distributed via electronic mail to formal private sector employers in order to collect data on their perspectives on and attitudes towards hiring persons with disabilities. The qualitative strand focused on persons with physical disabilities who were subjected to telephonic structured interviews to glean their perceptions of issues and the experiences they faced in their search for employment. Furthermore, certain advocacy organisations and associated groups involved with persons with disabilities, were approached and invited to respond to three questions posed to them via electronic mail, in order to elicit their perspectives on the plight of persons with disabilities to secure employment. The researcher's objective was to derive themes for interpretation in line with the research aims of this study, namely to determine the causes of exclusion of persons with physical disabilities from employment and the interventions which could assuage the situation.

The research setting was immaterial in this study since this research did not entail field research and therefore characteristics of the research setting were inapplicable. Persons with physical disabilities responded to structured telephonic questions in their natural setting, whether at work or at home. Concomitantly, the aspects of entrée and establishing researcher roles were inapplicable since, again, the research did not entail field research.

5.5.3.1 *Sampling of research participants*

Purposive sampling was applied to the samples drawn in this study, namely formal private sector employers and persons with physical disabilities. Advocacy organisations and associated groups were also included to canvass their ideas and proposed solutions. To reiterate, purposive sampling rests on judgement and an intentional effort to obtain representative samples by including subjects that are regarded as typical of the population being studied (Kerlinger & Lee, 2000).

Various types of purposeful (i.e. non-random) sampling can be used, such as a few information-rich cases, extreme cases or typical cases. The choice of sampling strategy must be justified. Transferability of findings is enhanced when the researcher has used a technique called sampling to redundancy where, rather than defining the sample size in advance, increasingly more people are interviewed until a repetition of themes and issues occur and no new information can be elicited by enlarging the sample size (Durrheim, 1999a).

Persons with disabilities are considered a vulnerable group and their rights should be protected as described by the CRPD (2006). As alluded to in Chapter 1, in this study, a purposive sample of persons with physical disabilities was obtained for the qualitative strand of the mixed methods research.

Advocacy organisations involved with persons with disabilities were identified by means of the internet and approached with an electronic inquiry composed of three open-ended questions and two responded. Associated groups, specifically disability placement agencies, also identified through the internet, were approached with the same inquiry composed of three open-ended questions and two responded. Furthermore, individual occupational therapists (also known as rehabilitation therapists) known to the researcher by virtue of her medico-legal work, were also approached. Three of the occupational therapists responded.

5.5.3.2 *Data collection in qualitative research*

According to Creswell (2009), data collection techniques in qualitative research include interviews whether face-to-face, telephonic, via email or in focus groups; observations; documents; and audio-visual materials such as photographs, film or art objects. Researchers apply broad, general, open-ended questions in response to which participants explain their viewpoints in order to produce text that is recorded verbatim. These narratives are then coded and categorised in order to derive meaning or themes. In some studies, the context or setting of the participants is studied (Creswell, 2009).

Based on the literature review, the issues surrounding the exclusion of persons with physical disabilities from the workplace emerged and served as the frame of reference for the formulation of the questions contained in the two interview schedules. Interview protocols are used to conduct telephonic interviews (Creswell, 2009). The researcher developed two interview schedules, one for employed and one for unemployed persons with physical disabilities.

a Interviewing

In this study, telephonic structured interviews were conducted after two interview schedules were developed, one for employed and one for unemployed persons with physical disabilities who formed the sample for the qualitative strand.

For the purposes of gathering data, interviews entail active interactions with people, which then result in negotiated, contextually-based narratives. The interview has become a widely used technique in many spheres of life and is considered a universal method of systematic inquiry, applicable to a formal or natural setting in the field (Fontana & Frey, 2000). Interviewing can be conducted in a structured, semi-structured or unstructured format and questions can be either open-ended or closed in nature, while an interview schedule can be developed in advance (Terre Blanche & Kelly, 1999). The participant's responses are recorded verbatim in the

case of open-ended questions (Hall & Hall, 1996). Open-ended questions are flexible; enable depth and clarification of misunderstandings, through probing; ascertain a respondent's level of knowledge; detect ambiguity; foster cooperation; and create rapport which facilitates better assessments of participants' true intentions and attitudes (Kerlinger & Lee, 2000).

The convenience, purposive sample of persons with physical disabilities, drawn from a database of persons with physical disabilities that resulted from vehicle collisions, was interviewed telephonically, using a structured approach with questions focused on, inter alia, their current employment status; perceptions of the reasons for failure to secure gainful employment, if applicable; obstacles encountered in this endeavour; positive and negative experiences; and strategies adopted to pursue employment. The court interpreter recorded the responses to the interview questions verbatim (Hall & Hall, 1996) which were then transcribed, captured and analysed to identify codes and derive themes. Before a researcher reaches the stages of data analysis and interpretation, the trustworthiness of qualitative research already applies to sample adequacy since the type and size of the sample should suit the research design (O'Cathain, 2010).

b Telephonic interviewing

In conducting interviews, including telephonic interviews, an interview protocol is used to pose questions and record responses (Creswell, 2009). Telephonic surveys have become sought-after when compared with face-to-face interviews, since they are less expensive, uncomplicated to administer and more convenient for all involved. Interviews are recorded to ensure quality control. Telephonic surveys show similar results to those obtained from face-to-face interviews, although the latter might be more reliable in cases of highly sensitive topics. In telephonic surveys possible embarrassment is less likely, since the interviewer and the respondent do not meet in person (McNeeley, 2012). Conversely, telephonic interviewing is dependent on a telephone on the part of the potential respondent, while incorrect or changed telephone numbers occur. Also, disadvantages include

the continuous unavailability of the potential respondent and refusal to participate in the interview once reached (Lynn, 2008).

People have become intolerant of long telephonic interviews. Thus, in constructing the interview schedule, the researcher should commence with engaging questions, followed by the more complicated, personal and possibly routine ones. Applying scaled questions on the telephone could result in the respondent forgetting the categories (Dillman, 2008). According to Steeh (2008), telephonic interviews face an increasingly hostile environment as telemarketing calls interrupt the daily activities of individuals.

In this study, reaching the sample of persons with physical disabilities did not prove to be particularly challenging, since nowadays, most people are in possession of cellular telephones. Those who were contacted, were informed of the purpose of the study, gave their consent and obliged willingly. The questions contained in the interview schedules were derived from the literature review, in line with the research aims, and the format comprised straightforward open-ended questions as well as a few dichotomous items. Simple language was used to avoid misunderstandings and to facilitate the role of the contracted court interpreter.

5.5.3.3 Data analysis in qualitative research

Qualitative data analysis consists of a series of steps taken which enable multiple levels of analysis in order to move from the specific to the general (Creswell & Creswell, 2018). According to Teddlie and Tashakkori (2009), qualitative data analysis is mainly inductive in nature, which entails moving from particular data to a general theme or conclusion through reasoning. Thick or thorough description places the characteristics, processes or contexts of the studied phenomenon into a real-life perspective. Explanation of the phenomenon under study should be convincing and resemble the context to the extent that it is recognisable as true from a different perspective (Terre Blanche & Kelly, 1999).

In this research, the qualitative data were subjected to thematic content analysis, the benefits of which were described by Braun and Clarke (2006) as flexibility in its application across epistemologies; it is relatively uncomplicated to perform; it summarises aspects of a large amount of data, and/or offers a thick description of the data; it underscores similarities and differences that occur in the data set; it generates unexpected insights; and it accommodates social and psychological interpretations of data. Conversely, higher level thematic content analysis can be difficult especially when deciding which aspects of the data to prioritise. Thematic content analysis must be undertaken within an existing theoretical framework to justify the conclusions drawn (Braun & Clarke, 2006).

In this study, the qualitative data consisted of employers' responses to the open-ended questions contained in the customised survey questionnaire; the responses of persons with physical disabilities to structured telephonic interview questions; and the responses of advocacy organisations and associated groups to three open-ended questions. All of this data were analysed by means of thematic content analysis within the hermeneutic paradigm. The researcher adopted a deductive approach in that the open-ended questions contained in the customised survey questionnaire administered to employers as well as the structured telephonic interview questions put to persons with physical disabilities, were deduced from the literature review (Creswell & Creswell, 2018) and related to the research aims. However, an inductive approach was applied to the analysis of the qualitative data collected. As explained by Creswell and Creswell (2018), inductive reasoning in qualitative research commences with data collection, such as interviews, consisting of open-ended questions or field notes, whereafter data are analysed to generate themes from which broad patterns, generalisations or theory are derived inductively. Themes were aligned with the research questions (Bergman, 2010). Since this study did not entail field work, the respondents' natural settings were wherever they found themselves, be it at home or at work.

The open-ended questions enabled the respondents to narrate the problems and circumstances they currently faced, which contributed to an understanding of the

whole, namely the causes of exclusion of persons with physical disabilities from employment. The text produced consisted of the perspectives and experiences of the participants as well as their interpretation of the concepts covered, from which meaning and themes were derived, relating to the complex topic of disability. Although generalisability is not a requirement of qualitative research (Creswell & Creswell, 2018), the convergent mixed methods research strategy adopted aimed to connect and contrast the results of the quantitative strand with the findings of the qualitative strand, making generalisability possible. The researcher followed the phases of thematic content analysis, as described in the next sections.

a Familiarisation and immersion

Familiarisation suggests that the researcher reads through the texts (field notes and interview transcripts) several times and makes notes. At this stage, the researcher already becomes aware of potential patterns and interpretations likely to be supported by the data (Terre Blanche & Kelly, 1999). Creswell and Creswell (2018) described the first step as organising and preparing the data for analysis by, inter alia, transcribing interviews and sorting the data by source. Immersion means familiarising oneself with the text, knowing where particular quotes occur, discovering nuances, developing insight into the overall meaning and different types of meaning, while noting the language and metaphors used by a respondent (Kelly, 1999b). At this stage, reflection occurs about the information, its meaning and credibility (Creswell & Creswell, 2018). During this phase, content analysis of the data commences which entails a detailed and systematic examination of the contents of the text to identify patterns, themes or bias. The frequency with which each characteristic in the material emerges, is tabulated. (Leedy & Ormrod, 2010).

In this study, the qualitative data for analysis consisted of the text responses of employers to the open-ended questions contained in the customised survey questionnaire, which augmented their quantitative responses, and the verbatim transcriptions of the responses of persons with physical disabilities to the structured telephonic interview questions. The qualitative data were captured in

Microsoft Excel and then sorted by question and thereafter by topic covered. As explained by Leedy and Ormrod (2010), Excel spreadsheets can be used to keep track of and to organise collected data emanating from qualitative, quantitative or mixed methods research approaches. Microsoft Excel is used by researchers to capture participants' responses in preparation for thematic content analysis, as also found in the studies of Van Staden (2011), Shakespeare et al. (2019), Ximba (2016), Ju et al. (2012) and Wigget-Barnard (2013). The researcher read through the captured data (text and transcriptions) several times to familiarise herself with the contents and to identify possible patterns. According to Braun and Clarke (2006), verbal data need to be transcribed into written form to conduct thematic content analysis. Systematic transcription of data can contribute to reliability (Silverman, 2000).

b Coding

Coding is the process of organising the gathered data into segments of text placing them into categories, and labelling or naming these categories (Creswell & Creswell, 2018). Thus, the researcher searches for the underlying meaning in the text, not the substance, and compiles a list of potential themes which are then grouped, perhaps as major, unique or leftovers. Next, these topics or potential themes are converted into categories or themes, with related ones sorted together. Codes can be generated from various sources, be it the literature; common sense; unexpected or new, original dimensions; a theoretical viewpoint; predetermined codes; or a combination of these (Creswell, 2009). According to Leedy and Ormrod (2010), categories are, in effect, variables.

In this study, based on the methodology described, segments of the data that seemed to contain possible themes were grouped and coded on the strength of the repetition of topics, and then labelled. In many cases, a response to a question consisted of several components and was coded accordingly. The two entire data sets were coded manually by the researcher. Since the questions were open-ended but specific, respondents provided focused, clear responses, without

unfamiliar terms or metaphors. The coded data extracts were then sorted and grouped into potential themes. The collated codes were again scrutinised to ensure that they formed a coherent pattern and represented a common theme (Braun & Clarke, 2006). All insights were incorporated even if they occurred infrequently.

c Deriving themes

Following coding, which could comprise a long list of codes identified from the data, themes are sought. During this phase, the different codes are arranged into potential themes and the data extracts (respondents' quotes) are collated with the associated themes. Relationships between codes, between themes and between different levels of themes, for instance, overarching and subthemes, are assessed. Themes might be retained, combined, refined, separated or discarded (Braun & Clarke, 2006). Ideally, the researcher should not only describe themes but endeavour to create complex connections between themes, supported by diverse perspectives from respondents in the form of quotes (Creswell & Creswell 2018). Themes can be broad and incorporate many expressions or be focused and link specific statements. In order to derive themes, one searches for repetitions of topics, unfamiliar terms, metaphors, similarities or differences between expressions and so forth (Ryan & Bernard, 2003). In the presentation of themes, verbatim quotes from respondents could represent concepts, theories and even negative cases (Ryan & Bernard, 2000). Themes are the units of analysis which form the basis of the arguments to be made about the phenomena under investigation (Braun & Clarke, 2006).

The findings could be conveyed with a narrative passage consisting of, inter alia, a comprehensive discussion of the themes derived and even visuals, figures and tables (Creswell & Creswell, 2018). In deriving themes, the researcher intuitively tends to look for commonality and might forfeit certain contextual differences in the data being compared. By allowing both movements of the hermeneutic circle (particular to general and general to particular) to have an influence, the researcher

is likely to arrive at an interpretation that accounts for contexts and across contexts (Kelly, 1999b).

In this study, following coding, a collection of potential themes were combined, refined or separated (Braun & Clarke, 2006) to identify explicit themes which were then grouped together and labelled in accordance with the patterns of meaning found. The prevalence of themes was illustrated in frequency tables (Creswell & Creswell, 2018), where possible, and accompanied by applicable data extracts (respondents' quotes) to support the findings and answer the research questions. The qualitative strand of this convergent mixed methods research study was based on the responses of the sample of employed and unemployed persons with physical disabilities. Since structured telephonic interviews were conducted with them, the themes gleaned from their responses arose from specific questions posed and statements made (Ryan & Bernard, 2003).

d Elaboration

Elaboration enables closer investigation of the themes that were derived in order to discover finer nuances of meaning, perhaps overlooked in the previous phase. It might be required to recode the data and to elaborate again until no new notable insights transpire (Terre Blanche & Kelly, 1999). The data that produce themes should be coherent and themes must be clear and independent of each other. The reasons for refining themes entail that some themes could be insubstantial or too diverse or they collapse where other themes emerge or they require further unravelling into separate themes. In refining themes, the researcher should firstly reread the entire data set and thus read all the collated extracts for each theme to ascertain whether they appear to form a coherent pattern and, secondly, the credibility of all individual themes in relation to the data set is assessed in terms of whether the themes accurately reflect the meanings evident in the data set as a whole. Any additional data within themes that were missed or new themes which emerged are then coded (Braun & Clarke, 2006).

In this study, the researcher reread the entire data set to ensure that the themes that were derived, accurately reflected the contents and meaning of the data. For purposes of interpretation, the themes were named. Where possible, the prevalence of themes was transformed into numerical counts and illustrated in frequency tables, reflecting their prominence in the data set and supported by accompanying verbatim quotes. The themes were related to the research aims.

5.5.3.4 Data interpretation in qualitative research

In qualitative research, interpretation involves summarising the findings, comparing them with the literature and discussing the findings, including whether they confirm past information or diverge from the body of knowledge (Creswell & Creswell, 2018). Following elaboration, the logical final step encompasses interpretation of the meaning of the data. According to Kelly (1999b), interpretation occurs when the researcher needs to make sense of the data in a reasonably concise, insightful and clear manner. Having dissembled the text for the purposes of coding and deriving themes, the researcher now needs to link the themes in order to produce a final account, whether general or contextual in nature. With the aid of quotes of participants' responses, a situated account is compiled to enable the reader to imagine the situation surrounding a theme as it was experienced. An interpretive process involves exploring the similarities and differences between the separate cases, without any contextual detail or reference to a particular person or situation, put forth as a description of a general process across cases (Kelly, 1999b).

Thematic content analysis and interpretation aim to divulge the story of the data in a manner that persuades the reader of the integrity and credibility of the findings, presented as a concise, coherent, logical, non-repetitive and interesting account, within and across themes, supported by ample data extracts to confirm the prevalence of the theme. The findings should describe the data and reason that the research question has been answered (Braun & Clarke, 2006).

The advent of computer software packages and their many applications for qualitative data processing has made the task of researchers much easier Weitzman (2000). In this research, computer software programs were used. The responses of employers received from the online survey service provider as well as the verbatim responses of persons with physical disabilities were captured in Microsoft Excel. Both sets of qualitative responses were transformed into numerical codes, where possible, by means of IBM SPSS Statistics Version 24 to produce frequency tables.

In this study, the qualitative data obtained from the different participants (employers and persons with physical disabilities) were scrutinised several times, coded manually by the researcher, categorised and themes derived, followed by review and elaboration. Themes were bound together, commonalities and differences across themes examined and findings compared with the literature to confirm or contradict existing information. The researcher endeavoured to share the story of the data in a concise, coherent, logical and original manner and to assess the merits and credibility of the findings (Braun & Clarke, 2006). Data extracts (quotes) served to support the themes and, where possible, themes were transformed into numerical codes to facilitate illustration, understanding and interpretation. Hence, the researcher's interpretation of the meaning of the data was a product of her work experience, a comparison of the findings with those reported in the literature and new insights provided by the participants, all of which could culminate in actions and policy to facilitate the employment of persons with disabilities, which formed the core of the research aims of this research.

The researcher took specific cognisance of the view of Terre Blanche and Kelly (1999), who considered it absurd to imagine that computers can know and summarise feelings, opinions and experiences in words or search for associations between different concepts or formulate research questions. Computer software programs for qualitative data analysis can only assist the researcher to effectively process large amounts of data.

5.5.4 Validation of qualitative research

As opposed to the criteria of validity and reliability to judge the soundness of quantitative research, in the case of qualitative research, these criteria entail credibility, dependability, transferability and confirmability (Kelliher, 2005). Qualitative research is not subjected to accepted norms for assessing validity. However, steps are taken to ensure rigorous methodology and interpretation of data by providing rich descriptions of the data collected, high-quality data collection efforts and rigorous data analyses and reporting (Venkatesh et al., 2013).

5.5.4.1 Credibility

Venkatesh et al. (2013) broadly classified the types of credibility or “validity” in qualitative research. The first type of “validity” entails design validity, comprising descriptive validity, which refers to the accuracy of reporting on the phenomenon; credibility, which judges whether the findings are believable from the perspective of the participants and whether alternative explanations have been neutralised; and transferability, which indicates the extent to which the findings can be generalised or transferred to other people, contexts or settings. The second type of “validity” encompasses analytical validity, constituting theoretical validity, which indicates the degree to which the theoretical explanation that emerged fits the data and is therefore credible and defensible; dependability, which addresses any changes that occur in the setting and how these changes determined the research approach; consistency, where raw data, data reduction outcomes and process notes are examined to verify the steps taken; and plausibility, which ascertains whether the presentation of the findings fits the data. The third type of “validity” constitutes inferential validity, involving interpretive validity which relates to the accuracy with which participants’ views, thoughts, feelings, intentions and experiences have been understood and interpreted; and confirmability, which relates to the extent to which the findings could be confirmed or corroborated by other researchers, should they duplicate the study.

The accuracy of the findings determines the credibility of a qualitative research study. Creswell and Creswell (2018) proposed eight strategies to enhance the credibility of research findings, namely triangulation of different data sources; member checking of major findings with the participants; provision of rich, thick descriptions of the setting or several perspectives to paint a believable picture for the reader; clarification of bias where the researcher reflects on his or her impact on the findings; presentation of negative or discrepant information which contradicts themes; prolonged time spent in the field, where applicable; peer debriefing where an outsider poses questions about the study; and appointment of an external auditor who assesses the study objectively.

Persons with physical disabilities were subjected to telephonic structured interview questions and their responses were repeated to them for clarification and recorded verbatim to enable interpretive validity, descriptive validity and credibility. Furthermore, the researcher rigorously recorded every step taken from the stage of data collection, to processing the raw data, to coding, to checking and capturing the codes, to analysis and to deriving themes, which were then related to the theory. Theoretical validity, consistency and plausibility were therefore achieved. As proposed by Creswell (2009), in this study, the researcher addressed discrepant information and contradictions to the themes that emerged, in order to enhance the credibility of the findings.

5.5.4.2 Dependability

In qualitative research, dependability is sought in place of reliability of the data. Dependability refers to the extent to which the reader can be assured that the findings are true and were derived as claimed by the researcher. Qualitative researchers do not expect to find the same results repeatedly since they do not examine stable phenomena. Individuals, groups and organisations behave differently in changing contexts. Rich and detailed descriptions of how actions and viewpoints are entrenched in and develop from contextual interaction ensures dependability (Durrheim & Wassenaar, 1999).

Certain procedures can be followed in qualitative research to enable a consistent and stable approach. These procedures entail checking the accuracy of transcriptions; continuous comparison of data with the codes allocated to ensure their meaning remains unchanged; and utilising an auditor to cross-check the codes (Creswell & Creswell, 2018).

The specific steps taken by the researcher to ensure the reliability of the findings were described earlier in this chapter in the section on the trustworthiness of mixed methods research. The researcher's own experience in assessing people injured in vehicle collisions, who were left with disability, spans two decades, which aided in the coding, categorisation and interpretation of the findings. The researcher counted the prevalence of the themes derived and, in collaboration with the statistician, the transformed qualitative data were then presented in theme frequency tables for interpretation.

5.5.4.3 *Transferability*

Transferability is sought by a researcher and refers to the degree to which the conclusions drawn from the findings of a study can be applied to other entities or settings (O'Cathain, 2010). However, in qualitative research the aim is not to generalise findings to people, settings or places beyond the study (Creswell & Creswell, 2018). Transferability is achieved by generating detailed and rich descriptions of meanings emanating from a specific context (Durrheim & Wassenaar, 1999), while sampling to redundancy enhances transferability (Durrheim, 1999a).

In this study, the samples of employers and persons with physical disabilities, respectively, were large enough to identify repetitive themes and enable transferability of the qualitative findings to other comparable populations. It is possible that the findings of the qualitative strand pertaining to persons with physical disabilities could be transferred to persons with other disabilities, including those of a congenital nature and those contracted through disease.

5.5.4.4 *Confirmability*

Confirmability or replicability of research was described by Kerlinger and Lee (2000) as the duplication of a study to determine the reliability of the results or findings in the same situation and to test the empirical implications of the relevant theory. According to Babbie and Mouton (2014), confirmability must be made possible where the conclusions, interpretations and recommendations of a study can be traced for an audit trial.

Other studies aimed at confirming the findings of this research, are expected to attain comparable outcomes when applying the same methodology in respect of the same constructs.

5.6 REPORTING THE RESULTS AND FINDINGS

Research ceases with the interpretation of the data contained in a separate section in which all loose threads are linked to condense the achievements of each phase. The findings and conclusions pertaining to the research problem are summarised and entirely supported by the data presented. Statements then follow about whether or not the hypotheses have been supported. In essence, the results and discussion of a study should distinguish between findings and interpretations. The interpretations should be based on the data obtained and related to extant literature and the conceptual/theoretical framework. Generalisations must be justified and defended (Leedy & Ormrod, 2010).

Writing up the findings of qualitative research entails the point at which the researcher has made enough sense of the data to present them (Sandelowski, 1997). The results and findings of research should be useful, for instance to guide policy-making, facilitate change, and so forth. Conclusions and recommendations could be transferable in varying degrees to other settings, people, organisations or time periods within boundaries which must be indicated (Teddlie & Tashakkori, 2009).

This study generated quantitative and qualitative data collected by means of convergent mixed methods research, which involved employers and persons with physical disabilities, respectively. The motto of DPSA entails “Nothing about us without us” (DPSA, n.d) and therefore, for the sake of inclusiveness, certain advocacy organisations and associated groups were approached with three questions to elicit their perspectives on the topic of the research.

The results of the quantitative strand and the findings of the qualitative strand of the convergent mixed methods research study were discussed separately then compared, contrasted, linked and integrated to formulate meta-inferences (Teddlie & Tashakkori, 2009) and thus obtain a holistic understanding of the topic investigated (Venkatesh et al., 2013). Integration was facilitated by transforming qualitative findings into numerical data (Plano Clark, 2010), where possible, for ease of comparison. The researcher summarised and discussed the various results and findings and, in each case, indicated whether the outcome supported or departed from the theory, with relevant parts of the literature review included. The implication of a particular result or finding was then described. Possible explanations for surprise or contradictory findings were offered. The results and findings of the research were evaluated in relation to the research aims of the study and hypotheses were supported or rejected. The transferability of the results and findings of the mixed methods research study to other settings was considered (Teddlie & Tashakkori, 2009). The results of the exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and structural equation modelling (SEM) were discussed and the contribution of SEM elucidated. The researcher’s conclusions, limitations of the study and recommendations for future research are set out in Chapter 7.

5.7 CHAPTER SUMMARY

In this chapter, research design and methodology were conceptualised, both from a broad theoretical perspective and in relation to this study. Mixed methods research, quantitative and qualitative research approaches were all described

separately, each in terms of their origin, definition, description, characteristics and types. The data collection methods, data analysis techniques and procedures relating to the integration and interpretation of results and findings applicable to this study, were presented. The study focused on the causes of exclusion of persons with physical disabilities from employment from the perspective of a sample of formal private sector employers and a sample of persons with physical disabilities, respectively. Therefore, the adoption of a convergent mixed methods research strategy was prudent with employers' responses to an online customised survey questionnaire forming the quantitative strand and the responses of persons with physical disabilities to structured telephonic interview questions forming the qualitative strand.

The next chapter presents the results and findings of the convergent mixed methods research study.

CHAPTER 6

MIXED METHODS RESEARCH RESULTS AND FINDINGS

In this chapter, the results of the quantitative strand and the findings of the qualitative strand of the convergent mixed methods research study are presented and interpreted, taking cognisance of convergent and divergent findings, in conjunction with the research aims and relevant theory. As an extension of the mixed methods research into the causes of exclusion of persons with physical disabilities from employment, industrial sectors are compared and latent constructs sought in separate analyses. The samples involved in the study, namely formal private sector employers and persons with physical disabilities, are described. The perspectives of disability advocacy organisations, disability placement agencies and occupational therapists are imparted, being inextricable from persons with disabilities. All of the dimensions that emanated from the results and findings are conveyed in themes, supported by tables, figures and verbatim quotes of the participants. The chapter concludes with an integration and discussion of the mixed methods research results and findings, followed by an evaluation of whether the research hypotheses were supported or rejected.

6.1 INTRODUCTION

The study endeavoured to explore the causes of exclusion of persons with physical disabilities from employment in South Africa. Phase 1 of the study comprised the literature review. Phase 2 entailed the implementation of a convergent mixed methods research strategy. The quantitative strand involved a customised online survey of the perspectives and attitudes of South African formal private sector employers with regard to numerous aspects that were derived from the body of scholarship on the topic of disability and employment. This questionnaire contained Likert-type scaled items, dichotomous items and open-ended questions to augment the closed ones. Although frowned upon by the disability community, the abbreviation PWD (persons with disabilities) was used intermittently in the questionnaire for the sake of brevity. Also, subsequent to distribution of the

customised survey questionnaire, it emerged that “people” with disabilities was being replaced with “persons” with disabilities in the South African policy framework in line with the CRPD (2006). Relevant legislation is being amended accordingly, as discussed in Chapter 4. The qualitative strand entailed the perceptions and challenges of persons with physical disabilities pertaining to their pursuit of employment. They were subjected to structured telephonic interviews, based on interview schedules, the contents of which were derived from the literature on the topic of the study. To augment the qualitative strand, advocacy organisations and associated groups (disability placement agencies and occupational therapists) were also approached for their ideas on three specific questions posed to them.

The general aim of the research was twofold. Firstly, it set out to uncover the causes of exclusion of persons with physical disabilities from employment in the South African open labour market, and secondly, to identify interventions that could assuage this situation.

The specific empirical aims of the convergent mixed methods research study were formulated as follows:

Research aim 1

To adopt a convergent mixed methods research approach in order to ascertain the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.

Research aim 2

To determine the statistically significant differences that exist between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.

Research aim 3

To uncover the constructs which underlie the causes of exclusion of persons with physical disabilities from employment.

Research aim 4

To identify interventions to assuage the exclusion of persons with physical disabilities from employment.

Hypotheses

Emanating from the research problem and aims, the following hypotheses were formulated:

- Ha1: There are statistically significant differences between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment.
- Ho1: There are statistically non-significant differences between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment.
- Ha2: The constructs which underlie the causes of exclusion of persons with physical disabilities from employment can be identified.
- Ho2: The constructs which underlie the causes of exclusion of persons with physical disabilities from employment cannot be identified.

The mixed methods research was conducted in the context of the pragmatic paradigm (quantitative strand) and the hermeneutics paradigm (qualitative strand), as expounded on in Chapter 5.

As described in Chapter 5, in this study, the statistical techniques applied to analyse the quantitative data entailed descriptive statistics, inferential statistics and data reduction methods. The statistical methods implemented produced frequencies,

percentages, means, chi-square tests, exploratory factor analysis and structural equation modelling, illustrated with tables, bar graphs, pie graphs and diagrams, where appropriate. The themes that emerged from the employers' text responses to the open-ended questions were, where applicable, transformed and presented in frequency tables. The role of the statistician was explained in Chapter 1. IBM SPSS Statistics Version 24 and IBM SPSS Amos Version 24 served to reduce the data.

All qualitative data (employers' responses to the open-ended questions contained in the customised survey questionnaire; the responses of persons with physical disabilities to the structured telephonic interview questions; and the responses of advocacy organisations and associated groups to three specific questions posed to them) were subjected to thematic content analysis. Where possible, the qualitative data were transformed into numerical codes and illustrated in frequency tables to facilitate interpretation of the findings.

The headings in this chapter constitute the themes that were derived from the results and findings. Therefore, their sequence neither corresponds with the question numbers contained in the customised survey questionnaire nor with those in the interview schedules. Owing to different samples involved, in some cases, a particular theme applied only to employers. Thus, the two sets of data are not mirror images of each other. The themes included particular categories, namely employers (quantitative strand); unemployed and employed persons with physical disabilities (qualitative strand); and interpretation of the meaning of the themes. This chapter culminates in an integration and discussion of the convergent mixed methods research results and findings where these are compared, contrasted, integrated and linked with the research aims and the relevant theory.

6.2 DESCRIPTION OF THE SAMPLES

6.2.1 Quantitative strand

6.2.1.1 Sample of employers

A purposive sample of employers in the South African formal private sector was obtained for the quantitative strand of the mixed methods research. The goal was to target individuals who held human resources (HR) positions in private sector organisations and who were involved in the recruitment and selection of staff. The online survey service provider acquired a database of 20 000 incumbents, who reportedly held HR roles in private sector organisations, from a database supplier. However, upon closer inspection, it became evident that a large portion of these incumbents did not hold HR positions and were removed from the database, leaving 8 597 potential respondents. At this juncture, it needs to be clarified that, throughout the thesis, the “employer” or “employers” were represented by the respondents who completed the online customised survey questionnaire. They comprised HR directors, HR managers and HR officers, while a few senior managers participated. These job titles were provided by the respondents and are entrenched in the private sector, as also contained in the PE Corporate Services SA Remuneration and Benefit Survey (2018). This survey is widely used by South African organisations for data on, inter alia, job grading, remuneration and fringe benefits associated with corporate jobs, statistics and market trends in the South African labour market. The survey is published twice a year. It was hoped that a large database would yield a satisfactory response rate.

The customised survey questionnaire was submitted to an online survey service provider who programmed it for electronic application. A database of approximately 20 000 individuals, employed in the South African formal private sector in human resources was acquired from a database company. The database contained names, job titles, organisation names and email addresses. However, the database was cleaned by the online survey service provider since it also contained the details

of incumbents not employed in human resources. Finally a list of 8 597 human resources directors, managers and officers emerged, to whom the electronic customised survey questionnaire was distributed. The questionnaire was resent to 6 149 of the potential respondents at a rate of 500 per day. Three weeks after the last round of questionnaires had been sent, the researcher decided to terminate the exercise, at which point 342 responses had been received. Thus, a response rate of 3.98% was achieved. Wigget-Barnard (2013) obtained a sample of 86 employers in her study.

The respondents were considered a homogeneous group. The majority (92.7%) held HR roles, in line with the purposive sample of the study. The sample comprised 35 HR directors, 194 HR managers, 88 HR officers and 25 senior managers from other disciplines (e.g. COO, CEO, line manager). The biographical data of the respondents were not reflected, since they represented organisations. However, since the targeted population in this study entailed HR incumbents, job titles were required. Therefore, the respondents involved in the quantitative strand represented the organisations that participated in the study.

6.2.1.2 Contextual data

a Geographical location

Respondents hailed from eight of the nine South African provinces. Figure 6.1 below discloses the geographical location of the respondents.

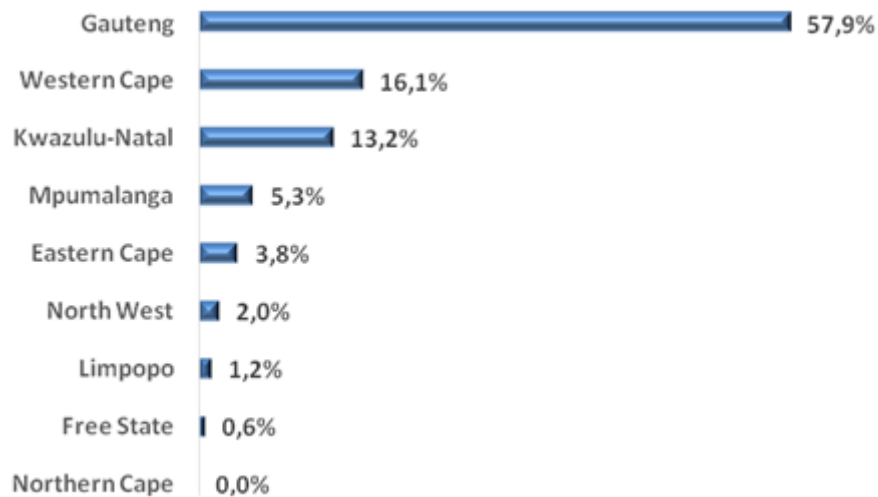


Figure 6.1 Geographical location of respondents

More than half (57.9%) of the respondents were located in Gauteng while the Northern Cape had nil representation.

b Industrial sector

Several industrial sectors were represented by the respondents. As alluded to Chapter 2, sector plays a role in employers' willingness to employ persons with disabilities (Lengnick-Hall et al., 2005). Table 6.1 below depicts the industrial sector in which respondents operate.

Table 6.1

Industrial sector in which respondents operate

Sector	Frequency	Percent	Valid Percent	Cumulative Percent
Agriculture/Forestry/Fisheries	12	3.5	3.6	3.6
Wholesale/Retail Sales	21	6.1	6.2	9.8
Cellular/Media	16	4.7	4.7	14.5
Construction/Property Development/Property Management	38	11.1	11.3	25.8
Electricity/Gas/Water Supply	9	2.6	2.7	28.5

Financial Services/Banking/Insurance	51	14.9	15.1	43.6
Health Services/Medical	31	9.1	9.2	52.8
Hospitality/Recreation/Culture/Sport	16	4.7	4.7	57.6
Information Technology	20	5.8	5.9	63.5
Manufacturing (Light)	24	7.0	7.1	70.6
Manufacturing (Heavy)	36	10.5	10.7	81.3
Mining/Quarrying	21	6.1	6.2	87.5
Supply Chain/Transport	26	7.6	7.7	95.3
Research	16	4.7	4.7	100.0
Total	337	98.5	100.0	
Missing	5	1.5		
Total	342	100.0		

The largest percentages of respondents emanated from the financial, construction and heavy manufacturing sectors.

c Total number of employees at respondents' locations

The reported staff complement indicated that small to large organisations participated in the study. It should be borne in mind that respondents indicated the number of employees based at their location, which could have excluded branches or divisions located elsewhere, most likely outside their scope of responsibility. As explained in Chapter 2, larger organisations were more receptive to hiring persons with disabilities than smaller ones (Domzal et al., 2008). Figure 6.2 below illustrates the total number of employees at respondents' locations.

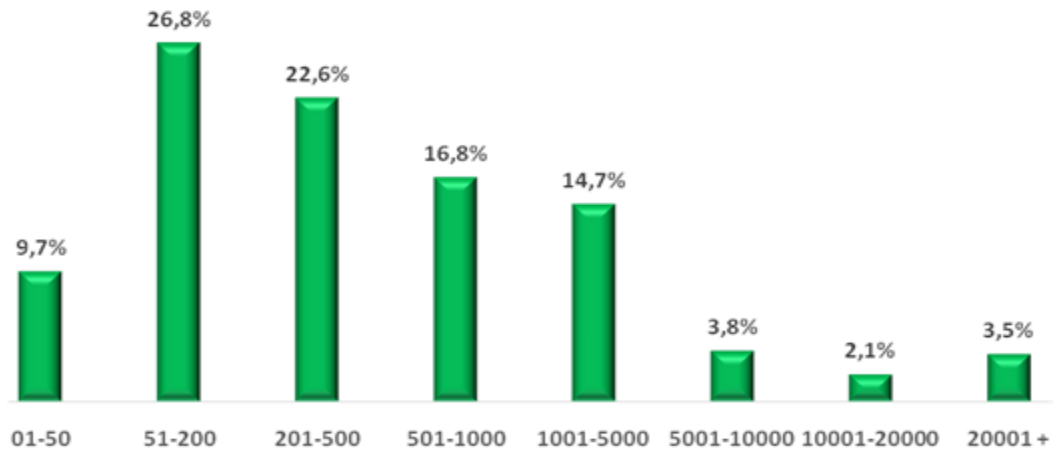


Figure 6.2 Total number of employees at respondents' locations

Small to large organisations were represented in this study.

d Job evaluation grading system in place

Figure 6.3 below displays the type of job evaluation system used by the respondents.

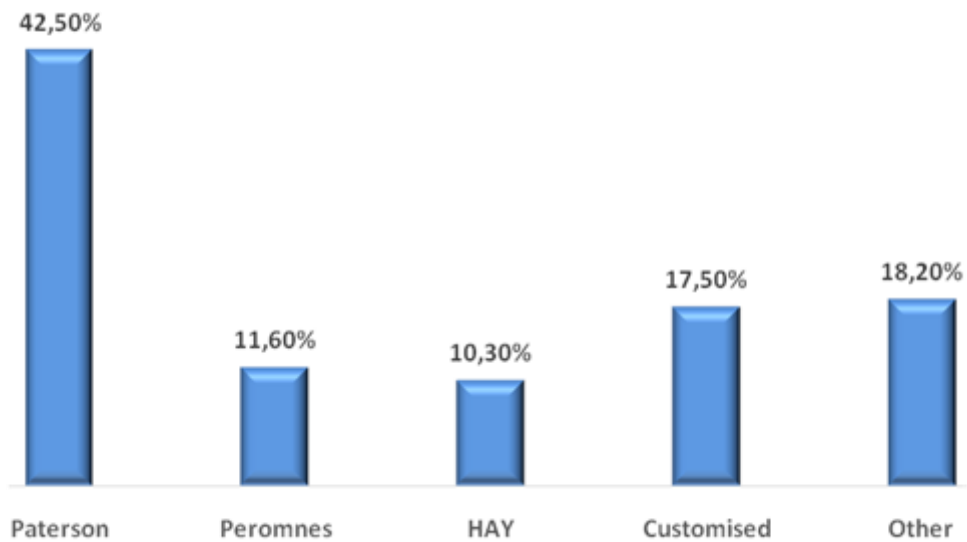


Figure 6.3 Type of job evaluation system used

The majority of the respondents (85.4%, n=292) reported that their organisation utilised a job evaluation/grading system of which the Paterson system was the most prevalent.

e Job levels that respondents were responsible for recruiting

Respondents could select any number of the listed options presented by the multiple response questions. Thus, the groups of cases are not independent and therefore the percentages added up to more than 100%. Table 6.2 below shows the job levels that respondents were responsible for recruiting.

Table 6.2

Job levels

Level	Responses		
	N	Percent	Percent of Cases
Hourly paid	235	13.9	68.7
Admin/support	316	18.6	92.4
Specialist/professional	303	17.9	88.6
Junior managers/supervisors	305	18.0	89.2
Middle managers	287	16.9	83.9
Senior managers	250	14.7	73.1
Total	1696	100.0	495.9

On average, the respondents selected five different levels. The level selected by the largest proportion of the respondents entailed admin/support (92.4%, n=316).

6.2.2 Qualitative strand

6.2.2.1 Sample of persons with physical disabilities

Persons with disabilities are considered a vulnerable group and their rights should be protected as described by the CRPD (2006). For two decades, the researcher has been involved in psycho-legal assessments of persons with disabilities, acquired as a result of injuries sustained in motor vehicle collisions, who lodged

claims for compensation with the Road Accident Fund. From an existing database, which exceeded 7 000 cases at the time when the study commenced, a convenience purposive sample was drawn in respect of the following criteria: Male and female individuals with physical disabilities, from any South African language group, aged between 18 and 55, in possession of at least a Grade 10 (Std 08) level of education, employed and unemployed. The researcher contracted a computer programmer who assisted with extracting the specific sample from the large database. It should be emphasised that it was a readily available convenience purposive sample of persons with physical disabilities which were acquired in vehicle collisions, but the cause of their impairment was immaterial to the research aims of the study. Researchers such as McKinney (2013), Snyman (2009), and Van Staden (2011) all referred to the difficulty with locating persons with disabilities as samples. In this study, the sample of persons with physical disabilities amounted to 312, of whom 157 were unemployed and 155 were employed.

In order to augment the responses of persons with physical disabilities, advocacy organisations involved with persons with disabilities were identified by means of the internet and approached with an electronic inquiry composed of three open-ended questions. Disabled People South Africa and the Association for the Physically Disabled responded. Associated groups, specifically disability placement agencies, also identified through the internet, and occupational therapists known to the researcher, were approached with the same inquiry composed of three open-ended questions. Progression-Transformation Enablers and I Can! Work Corporate Disability Solutions as well as three occupational therapists responded.

In the case of the sample of persons with physical disabilities, their biographical data were required to ensure that they formed part of the targeted population.

6.2.2.2 Biographical data of unemployed persons with physical disabilities

a Gender

Gender was established to ensure that male and female unemployed persons with physical disabilities formed part of the study. Table 6.3 below depicts the gender of the respondents.

Table 6.3

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	103	65.6	65.6	65.6
Female	54	34.4	34.4	100.0
Total	157	100.0	100.0	

The majority of the sample of respondents was male (65.6%, n=103).

b Age

The study focused on persons with physical disabilities of working age. Table 6.4 below displays the age range of the respondents.

Table 6.4

Age

	N	Minimum	Maximum	Mean	Std. Deviation
Age	157	23	56	38.94	8.287
Total	157				

On average, the respondents were 38.94 years of age.

c Highest qualification

The highest qualification of the unemployed respondents was determined to ensure that they possessed a minimum of Grade 10 in line with the sample criteria. Figure 6.4 below reflects the respondents' highest qualification.

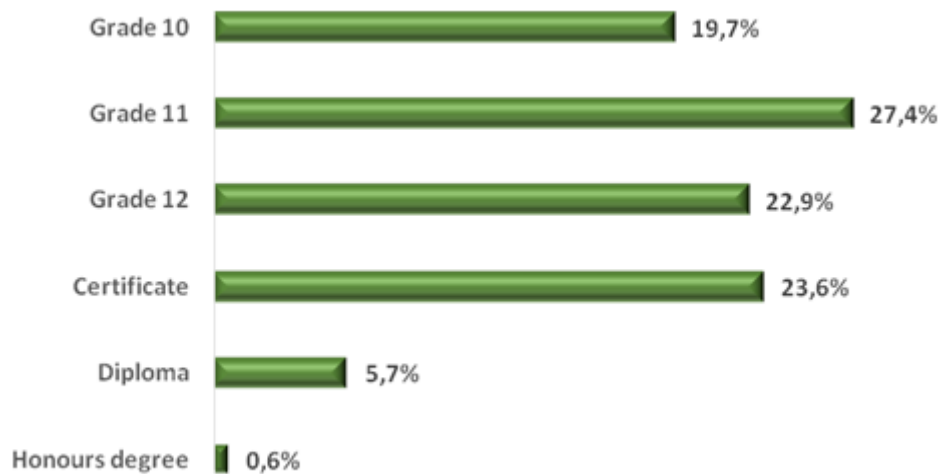


Figure 6.4 Highest qualification

More than half (52.8%) of the respondents held at least a Grade 12 education.

6.2.2.3 Contextual data of unemployed persons with physical disabilities

Since the study focused on persons with physical disabilities, the nature of injuries sustained needed to be ascertained. Table 6.5 below demonstrates the types of injuries sustained.

Table 6.5

Types of injuries sustained

Type of injury	Responses		
	N	Percent	Percent of Cases
Orthopaedic	146	64.6	93.0
Neurological	45	19.9	28.7

Disfigurement	19	8.4	12.1
Facial bones	11	4.9	7.0
Sensory	5	2.2	3.2
Total	226	100.0	143.9

This was a multiple response question. In total, 226 types of injuries were indicated. On average, each respondent reported 1.43 different types of injuries of which the most frequent was orthopaedic in nature (93%, n=146).

6.2.2.4 Biographical data of employed persons with physical disabilities

a Gender

Gender was established to ensure that male and female employed persons with physical disabilities formed part of the study. Table 6.6 below illustrates the gender of the respondents.

Table 6.6

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	103	66.5	66.5	66.5
Female	52	33.5	33.5	100.0
Total	155	100.0	100.0	

The majority of the sample of respondents was male (66.5%, n=103).

b Age

The study focused on persons with physical disabilities of working age. Table 6.7 below shows the age range of the respondents.

Table 6.7

Age

	N	Minimum	Maximum	Mean	Std. Deviation
Age	155	23	55	38.85	7.639
Total	155				

On average, the respondents were 38.85 years of age.

c Highest qualification

The highest qualification of the employed respondents was determined to ensure that they possessed a minimum of Grade 10 in line with the sample criteria. Figure 6.5 below displays the respondents' highest qualification.

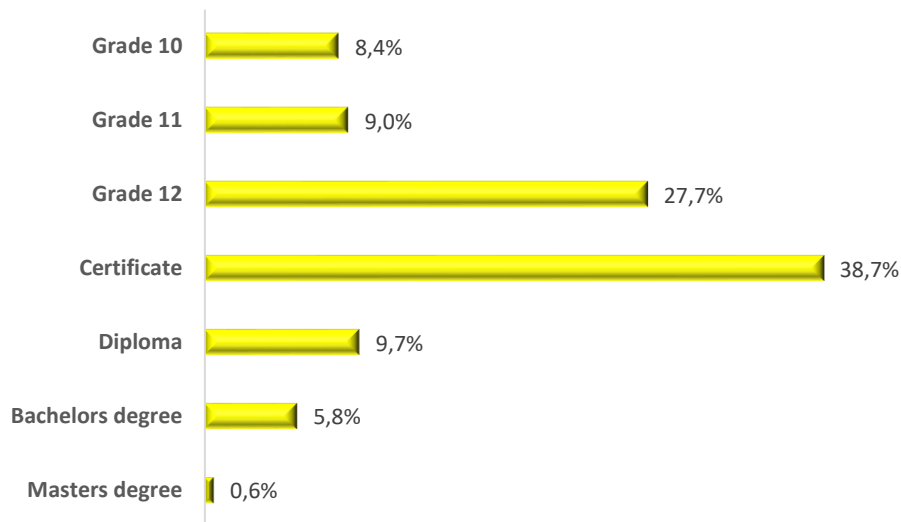


Figure 6.5 Highest qualification

The vast majority of the respondents (82.5%) held at least a Grade 12 education.

6.2.2.5 Contextual data of employed persons with physical disabilities

The study focused on persons with physical disabilities and therefore the nature of injuries sustained needed to be ascertained.

a Types of injuries

Table 6.8 below depicts the types of injuries sustained.

Table 6.8

Types of injuries sustained

Type of injury	Responses		
	N	Percent	Percent of Cases
Orthopaedic	154	53.5	99.4
Neurological	61	21.2	39.4
Disfigurement	60	20.8	38.7
Facial bones	8	2.8	5.2
Sensory	5	1.7	3.2
Total	288	100.0	185.8

This was a multiple response question. In total, 288 types of injuries were indicated. On average, each respondent reported 1.85 different types of injuries of which the most frequent was orthopaedic in nature (99.4%, n=154).

b Job title, economic sector and location of employer

Owing to the vast range of job titles reported, tabulation would serve no purpose. An extensive list of company names emerged which would be of no value to tabulate. Suffice to indicate that 93 of these resorted under the private sector, 43 under the public sector, 13 under self-employment and six under the informal sector category. The public sector included state owned enterprises. Respondents' employers were based mainly in Gauteng, followed by Mpumalanga, North West, Limpopo, Western Cape, Free State, Northern Cape, KwaZulu-Natal and abroad. None were based in the Eastern Cape.

6.3 THEMES DERIVED FROM THE RESULTS AND FINDINGS

The results and findings of the convergent mixed methods research undertaken in this study, were categorised by theme. The overarching theme relating to the causes of exclusion of persons with physical disabilities from employment encompassed the receptivity of employers to hiring persons with physical disabilities. Eleven themes were derived which were associated with the overarching theme. Where applicable, themes were subdivided into categories, namely employers, unemployed persons with physical disabilities and employed persons with physical disabilities. Following analysis of the results, it became clear that seven of the questions posed to employers also resorted under theme 9, named industrial sector comparisons. Questions posed to persons with physical disabilities that produced responses which overlapped with those of other questions, were omitted. Where appropriate, verbatim quotes of the participants are included to illustrate the point of the researcher about the data and to represent patterns in the data (Lingard, 2019). According to Corden and Sainsbury (2006), verbatim quotes have several purposes, namely the spoken word and discourse form part of the study; they provide evidence of and credibility to the researcher's findings and interpretations; they enhance understanding of people's views, experiences, assumptions and uncertainties; they are useful to illustrate themes that emerge from the data analysis; they consist of words that can express the depth of feelings; and they provide a voice to people through which to divulge their standpoints on policies and practices that have an impact on them.

6.3.1 Theme 1: Employers' willingness to employ persons with physical disabilities

As expounded on in Chapter 2, there are a number of causes of exclusion of persons with physical disabilities from the workplace including, inter alia, organisational culture, type of disability and safety concerns. The customised survey questionnaire contained items which pertained to other disabilities in

addition to physical ones, since some persons could have more than one disability, as was the case in this study.

6.3.1.1 Employers

a Organisational culture

As described in Chapter 2, organisational culture comprises numerous components, including flexibility, which have an impact on an employer's willingness to hire and accommodate persons with disabilities (Driscoll et al., 2001; Chan et al., 2010).

The respondents described the culture of their organisation as depicted on a 7-point scale, ranging from very conservative/traditional/rule-bound to very progressive/enlightened/ people-orientated. Figure 6.6 below demonstrates the respondents' description of their organisation's culture.

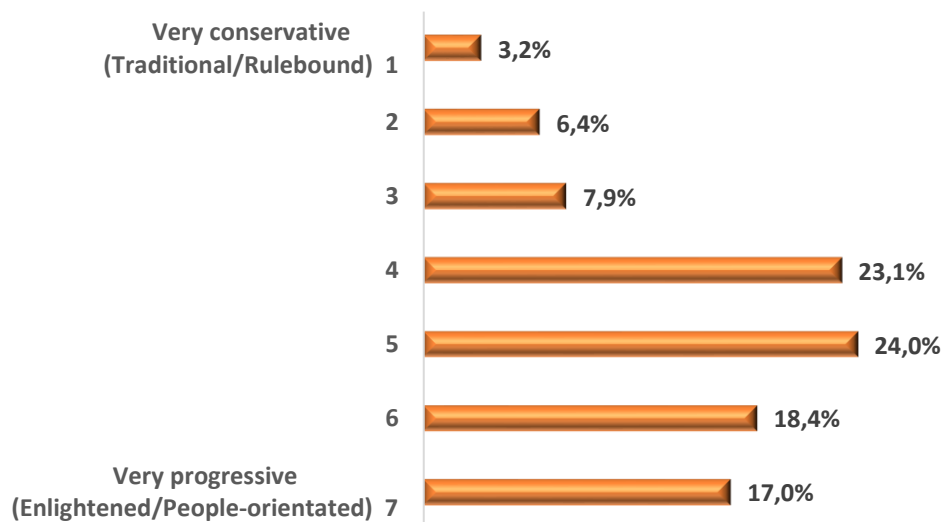


Figure 6.6 Respondents' description of their organisation's culture

The proportions towards the higher end of the scale are considerably larger than those at the lower end, indicating that the organisations from which the respondents hailed, tended to be more progressive than conservative.

b Receptivity to physical disability

As divulged in Chapter 2, the type of disability involved played a role in an employers' willingness to employ a person with a disability, with physical disability being favoured over psychosocial ones (Brennan et al., 2003; Ren et al., 2008). As indicated in the customised survey questionnaire, examples of physical disability included paraplegia; amputations; mobilising on crutches or with a frame; limping; a rigid leg; and muscle damage. Table 6.9 below illustrates the measure of agreement about whether the organisation would be willing to employ a person with a physical disability.

Table 6.9

The organisation would be willing to employ a person with a physical disability

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	136	39.8	45.9	45.9
Mostly agree	42	12.3	14.2	60.1
Agree	111	32.5	37.5	97.6
Disagree	3	.9	1.0	98.6
Mostly disagree	1	.3	.3	99.0
Strongly disagree	3	.9	1.0	100.0
Total	296	86.5	100.0	
Missing	46	13.5		
Total	342	100.0		

The proportions at the lower end of the scale are larger than those at the higher end, indicating that the vast majority of respondents (97.6%, n=289) tended to agree that their organisation would be willing to employ a person with a physical disability.

In respect of the types of physical disabilities that the organisation would be willing to employ, a total of 289 respondents provided information. Since the respondents could select any number of the listed types, the groups are not independent and therefore the percentage of cases added up to more than 100%, as illustrated in

Table 1D in Appendix D. A limp (84.1%, n=243) was the most frequently selected disability indicated by these respondents, followed by amputated leg (78.9%, n=228). The least frequent physical disabilities selected, that the organisation would be willing to employ, entailed those of paraplegia (51.2%, n=148) and back and neck conditions (49.5%, n=143).

Questioned about the categories of jobs in which the organisation would be willing to employ a person with a physical disability, the respondents could indicate any number of job categories. The groups are therefore not independent and the percentage of cases added up to more than 100% as depicted in Table 2D in Appendix D. The largest category in which the organisation would be willing to employ a person with a physical disability encompassed that of administration (56.6%, n=125), while 25.3% (n=56) indicated all suitable jobs, across the board.

c Receptivity to neurological disability

As indicated in the customised survey questionnaire, examples of neurological disability included brain injury, paralysed arm or leg; tremors, nerve damage, epilepsy, etc. Table 6.10 below displays the measure of agreement about whether the organisation would be willing to employ a person with a neurological disability.

Table 6.10

The organisation would be willing to employ a person with a neurological disability

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	39	11.4	13.3	13.3
Mostly agree	40	11.7	13.6	26.9
Agree	127	37.1	43.2	70.1
Disagree	52	15.2	17.7	87.8
Mostly disagree	19	5.6	6.5	94.2
Strongly disagree	17	5.0	5.8	100.0
Total	294	86.0	100.0	
Missing	48	14.0		
Total	342	100.0		

The proportions at the lower end of the scale are larger than those at the higher end, indicating that the majority of respondents (70.1%, n=206) tended to agree that the organisation would be willing to employ a person with a neurological disability.

Pertaining to the types of neurological disabilities that the organisation would be willing to employ, a total of 205 respondents provided information. Since the respondents could select any number of the listed types, the groups are not independent and therefore the percentage of cases added up to more than 100%, as illustrated in Table 3D in Appendix D. A paralysed arm or leg (87.3%, n=179) was the most frequently selected disability indicated by these respondents, followed by nerve damage (54.1%, n=111). The least frequent selected neurological disability entailed that of mild brain injury (35.6%, n=73).

Questioned about the categories of jobs in which the organisation would be willing to employ a person with neurological disability, the respondents could indicate any number of job categories. The groups are therefore not independent and the percentage of cases added up to more than 100%, as illustrated in Table 4D in Appendix D. The largest category in which the organisation would be willing to employ a person with a neurological disability encompassed that of administration (50.3%, n=80), followed by across the board (32.7%, n=52).

d Receptivity to sensory disability

As indicated in the customised survey questionnaire, examples of sensory disability included partial deafness; partial blindness; poor balance; speech impediment; etc. Table 6.11 below demonstrates the measure of agreement about whether the organisation would be willing to employ a person with a sensory disability.

Table 6.11

The organisation would be willing to employ a person with a sensory disability

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	75	21.9	25.4	25.4
Mostly agree	37	10.8	12.5	38.0
Agree	155	45.3	52.5	90.5
Disagree	17	5.0	5.8	96.3
Mostly disagree	4	1.2	1.4	97.6
Strongly disagree	7	2.0	2.4	100.0
Total	295	86.3	100.0	
Missing	47	13.7		
Total	342	100.0		

The proportions at the lower end of the scale are much larger than those at the higher end, indicating that the vast majority of respondents (90.5%, n=267) tended to agree that their organisation would be willing to employ a person with a sensory disability.

Pertaining to the types of sensory disabilities that the organisation would be willing to employ, a total of 258 respondents provided information. Since the respondents could select any number of the listed types, the groups are not independent and therefore the percentage of cases added up to more than 100%, as shown in Table 5D in Appendix D. Partial deafness (82.6%, n=213) was the most frequently selected sensory disability indicated by these respondents, followed by partial blindness (70.9%, n=183). The least frequent sensory disability selected that the organisation would be willing to employ, was poor balance (45.0%, n=116).

Questioned about the categories of jobs in which the organisation would be willing to employ a person with a sensory disability, the respondents could choose any number of job categories. The groups are therefore not independent and the percentage of cases added up to more than 100%, as reflected in Table 6D in Appendix D. The largest category in which the organisation would be willing to employ a person with a sensory disability encompassed that of administration (50.8%, n=95), followed by across the board (29.9%, n=56).

e Receptivity to psychosocial disability

As indicated in the customised survey questionnaire, examples of psychological/psychiatric disability included intellectual impairment, depression, bi-polar disorder, etc. Table 6.12 below reflects the measure of agreement about whether the organisation would be willing to employ a person with a psychosocial/psychological/psychiatric/intellectual disability.

Table 6.12

The organisation would be willing to employ a person with a psychosocial/psychological/psychiatric/intellectual disability

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	32	9.4	10.9	10.9
Mostly agree	45	13.2	15.3	26.2
Agree	122	35.7	41.5	67.7
Disagree	52	15.2	17.7	85.4
Mostly disagree	20	5.8	6.8	92.2
Strongly disagree	23	6.7	7.8	100.0
Total	294	86.0	100.0	
Missing	48	14.0		
Total	342	100.0		

The proportions at the lower end of the scale are larger than those at the higher end, indicating that the majority of respondents (67.7%, n=199) tended to agree that the organisation would be willing to employ a person with a psychosocial/psychological/psychiatric/ intellectual disability.

With regard to the types of psychosocial/psychological/psychiatric/ intellectual disabilities that the organisation would be willing to employ, a total of 192 respondents provided information. Since the respondents could select any number of the listed types, the groups are not independent and therefore the percentage of cases added up to more than 100%, as illustrated in Table 7D in Appendix D. Bi-polar disorder (77.1%, n=148) was the most frequently selected disability indicated

by these respondents, followed by depression (74.5%, n=143). The least frequently selected disability was intellectual impairment (37.5%, n=72).

Questioned about the categories of jobs in which the organisation would be willing to employ a person with a psychosocial disability, the respondents could indicate any number of job categories. The groups are therefore not independent and the percentage of cases added up to more than 100%, as illustrated in Table 8D in Appendix D. The largest category in which the organisation would be willing to employ a person with a psychosocial/psychological/psychiatric/intellectual disability encompassed jobs across the board (52.6%, n=70).

f Receptivity to physical versus psychosocial disability

As expounded on in Chapter 2, it was deduced from the literature that employers are more willing to employ persons with physical disabilities than those with psychosocial/psychological/psychiatric/intellectual conditions. Waterhouse et al. (2010) reported that depression and mental health conditions of employees were apparently particularly difficult for employers to manage. Figure 6.7 below depicts the measure of agreement about whether employers are more willing to employ persons with physical disabilities than those with psychosocial conditions.

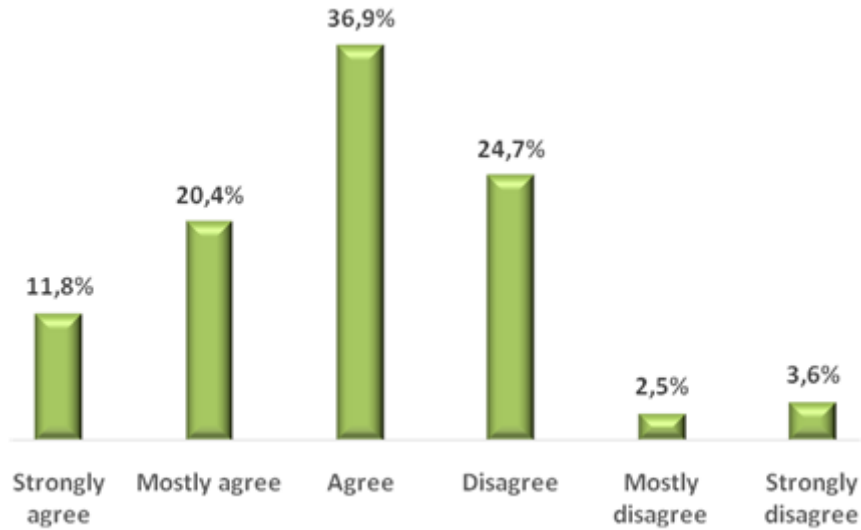


Figure 6.7 Employers are more willing to employ persons with physical disabilities than those with psychosocial conditions

A total of 279 responses to this item was obtained, of which the majority of respondents (69.1%) indicated agreement with the perception that employers were more willing to employ persons with physical disabilities than those with psychosocial conditions. Furthermore, respondents were requested to describe their reasons for agreement with the statement that employers are more willing to employ persons with physical disabilities than those with psychosocial conditions, as illustrated in Table 6.13 below.

Table 6.13

Reasons for agreement that employers are more willing to employ persons with physical disabilities than those with psychosocial conditions: Frequency of themes

Reasons	Frequency	Percent	Valid Percent	Cumulative Percent
Physical disabilities perceived as visible, better understood, predictable, stable, manageable and easier to accommodate	60	17.5	48.4	48.4
Invisible disabilities could pose a risk to colleagues and equipment and be challenging to manage	18	5.3	14.5	62.9
Invisible disabilities are more difficult to gauge and understand, causing employers to be wary	17	5.0	13.7	76.6

Reduced levels of accuracy, productivity and capacity to cope with change and work pressure	13	3.8	10.5	87.1
Fear of uncontrolled, unstable, disruptive, volatile, unpredictable behaviour in the workplace	6	1.8	4.8	91.9
Increased absenteeism	5	1.5	4.0	96.0
Impact of medication on thinking processes and safety in the workplace	3	.9	2.4	98.4
Invisible disabilities are often not initially disclosed	1	.3	.8	99.2
Triggers to unstable behaviour are unknown	1	.3	.8	100.0
Total	124	36.3	100.0	
Missing	218	63.7		
Total	342	100.0		

A total of 124 respondents indicated the reasons, in text form, for their agreement with the perception that employers are more willing to employ persons with physical disabilities than those with psychosocial conditions. Their responses were coded and themes derived as reflected in Table 6.13. These findings correspond with the literature review as expounded on in Chapter 2, where researchers such as Gouvier et al. (2003) and Ren et al. (2008) found that persons with physical disabilities were more likely to receive favourable employability ratings than those with mental disabilities. Furthermore, the findings are supported by the following verbatim quotes:

“Although my own perception, I believe physical disabilities are most often noticeable, more widely understood by employers and reasonable accommodations more easily implemented if budget is available” (Q50b, response 1).

“Employees with psycho-social issues are difficult to manage and pose a high risk level” (Q50b, response 30).

“Employers are comfortable with persons whose behaviour/reactions are mostly predictable, stable and dependable” (Q50b, response 33).

“I believe having to address the physical challenges in the work place may be viewed ‘easier’ as the idea of having to manage emotional disability concerns i.e., easier to install a lift than having to manage emotions” (Q50b, response 39).

“If psycho-social conditions are not treated or addressed it can have extreme impact on the employer. Experience with a case of an employee not disclosing her psychological condition resulted in extreme emotional outbursts linked with very violent behaviour, triggered by anything. Some people suffering from these conditions can be emotionally very abusive and constantly challenge line managers authority” (Q50b, response 50).

“It’s easier to deal with the visible issues than the non-visible issues. Psychological and psychiatric conditions are not as well known and people do not know how to deal with this. Depression and Bipolarity for instance can become huge organisational risks in terms of work harmony, attendance and motivation” (Q50b, response 66).

“Mindset and mental stability are the most important key factors in carrying out duties. Skills can be taught and experience can be gained but if a person is negative, depressed and suffers from emotional distress, the chances of being successful are more limited” (Q50b, response 77).

“People are more used to interacting with people with physical disabilities, people have a fear of how people with social, psychological and psychiatric disabilities may interact with others, and with intellectual conditions there is concern about trainability” (Q50b, response 83).

“Worried about the impact that a psychosocial or psychological or intellectual disability will have on the ability of the person to cope with the highly stressed deadline driven working environment in the company” (Q50b, response 132).

g Initial basis of employment

The literature on the topic referred to non-standard work such as temporary or contract jobs as a means to reduce labour costs (Wilton, 2006). It was therefore established whether the organisation would be willing to employ a person with a physical disability on a temporary, contract or trial basis. Figure 6.8 below shows whether the organisation would be willing to employ a person with a physical disability on a temporary/contract/trial basis.

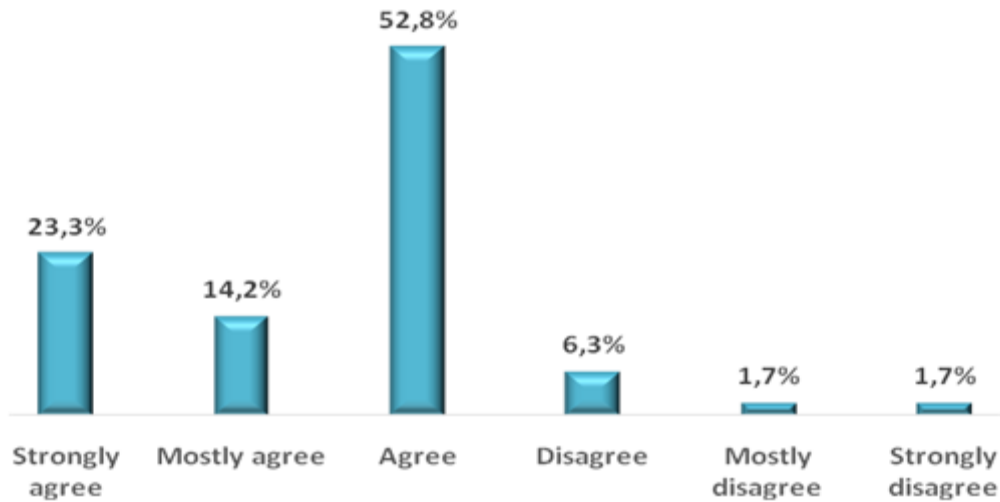


Figure 6.8 The organisation would be willing to employ a person with a physical disability on a temporary/contract/trial basis

The proportions at the lower end of the scale are larger than those at the higher end, indicating that the majority of respondents (90.3%) tended to agree that their organisation would be willing to employ a person with a physical disability on a temporary, contract or trial basis.

h Safety concerns

As expounded on in Chapter 2, it emerged from the extant literature that certain disabilities were perceived as a safety risk in the workplace, as found by Wooten and James (2005) and Kaye et al. (2011). Table 6.14 below discloses the measure of agreement pertaining to whether the organisation has safety concerns, relating to physical hazards and accidents, about employing a person with a physical disability.

Table 6.14

The organisation has safety concerns, relating to physical hazards and accidents, about employing a person with a physical disability

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	62	18.1	19.0	19.0

Mostly agree	23	6.7	7.0	26.0
Agree	117	34.2	35.8	61.8
Disagree	84	24.6	25.7	87.5
Mostly disagree	17	5.0	5.2	92.7
Strongly disagree	24	7.0	7.3	100.0
Total	327	95.6	100.0	
Missing	15	4.4		
Total	342	100.0		

The proportions at the lower end of the scale are larger than those at the higher end, indicating that the majority of respondents (61.8%, n=202) tended to agree that their organisation had safety concerns about employing persons with physical disabilities. The hazards anticipated by the respondents included catwalk staircases, slippery, wet or uneven surfaces, dangerous machinery, protruding machine parts/levers and inadequate lighting. Aspects of safety risks were further investigated to determine the impact of industrial sector, as discussed in section 6.3.9.

i Reasons for reluctance to employ persons with disabilities

Kaye et al. (2011) postulated that, in an effort to limit social desirability bias in surveys, respondents could provide an opinion on why other employers might not employ persons with disabilities. The researcher followed this suggestion and obtained the results reflected in Table 6.15 below, which demonstrates the reasons for reluctance or unwillingness to employ persons with disabilities.

Table 6.15

Why employers are reluctant or unwilling, in general, to employ persons with disabilities: Frequency of themes

Reasons	Responses		
	N	Percent	Percent of Cases
Fear of the unknown/lack of knowledge/understanding of disability and how to manage/accommodate PWD	86	28.3	36.4
Perception that PWD lack competence/productivity/skills/capacity for pressure	48	15.8	20.3

Cost of alterations/accommodations/additional training/assistive technology	41	13.5	17.4
PWD require more effort/more training/more attention/supervision/micro management	29	9.5	12.3
PWD with skills and/or experience cannot be found/do not apply for jobs	23	7.6	9.7
The nature of work/environment/risk is unsuited to PWD	21	6.9	8.9
Absenteeism	15	4.9	6.4
Stigma/misconception attached to PWD	13	4.3	5.5
PWD need concessions/special treatment wrt job performance standards	7	2.3	3.0
The employer does not have the facilities to accommodate the PWD	4	1.3	1.7
Reaction/discomfort of co-workers working with PWD	4	1.3	1.7
Employers are profit-driven, PWD employment not a priority	4	1.3	1.7
Fear of reaction to termination for poor performance	4	1.3	1.7
PWD make unrealistic demands	3	1.0	1.3
Senior PWDs are very expensive	1	0.3	0.4
PWD do not satisfy psychometric testing criteria	1	0.3	0.4
Total	304	100.0	128.8

A total of 304 respondents provided their opinions, in text form, about why employers are reluctant or unwilling, in general, to employ persons with disabilities. Their responses were coded and themes derived as reflected in Table 6.15.

A copious amount of text was generated from respondents' suggestions about the reasons for employers' reluctance or unwillingness to employ persons with disabilities. The causes of exclusion of persons with physical disabilities from the workplace were described in Chapter 2. These causes, in effect, indicate employers' reluctance or unwillingness to hire persons with disabilities, a topic researched by, inter alia, Ali et al. (2011), Copeland et al. (2010), Dixon et al. (2003), Domzal et al. (2008), Gida and Ortlepp (2007), Hagner and Cooney (2003), Kaye et al. (2011), Ren et al. (2008) and Waterhouse et al. (2010). Furthermore, the findings are supported by the following verbatim quotes:

“Lack of education on disabilities and how to handle them in the workplace – (perceived?) – low skills levels of people with disability – accessibility challenges for people with physical disability – stigmatization of people with psychological disabilities” (Q66, response 2).

“Perceived incompetence of people with disabilities – Discomfort in working with people with disabilities, as a result of our own issues – A lack of awareness of what working with someone with a disability entails – Social prejudice” (Q66, response 3).

“Difficult to manage/performance manage if necessary, lack of understanding of the condition, perceptions of lack of ability, too many changes in the work environment to accommodate a person with disabilities, education and awareness needs to be created” (Q66, response 31).

“Employers are not equipped to deal with people with mental disabilities. You must remember that the workplace competes in a very competitive environment and the rigid labour laws make employers reluctant to employ a person that might have to be terminated due to poor work performance. Employers cannot afford to expose themselves for claims at the CCMA. Unfortunately, disabled people (not all of them) play the ‘discrimination-card’ when they are reprimanded for poor work” (Q66, response 45).

“Everything is profit driven. No company is interested in being only a social institution. 100% performance is valued most and it is perceived that PWDs will not perform 100%, i.e., they take time off sick for treatment and are generally not as productive as their able-bodied counterparts. It is perceived that PWDs require more training (costs), inconvenience other staff members and are not conducive to the general company culture (often demand special treatment)” (Q66, response 52).

“Fear of the cost of hiring a PWD, fear of additional supervision and a loss of productivity. Employers are concerned about the special attention they may need to be devoted to employees with disabilities. They are concerned about the amount of time the supervisor would need to commit to a worker with a disability and subsequently keep them from their other duties. With regard to productivity of the employee with a disability ‘Will I need to make productivity concessions for this employee?’. The employer’s concern is often their perceived requirements to have

different productivity standards for two employees doing the same job. There is a general feeling that if they hire someone with a disability, it would be difficult to terminate the working relationship even if the new employee cannot perform the essential functions of the job” (Q66, response 58).

“I find that the number of disabled people who respond to advertisements are almost non-existent. To find them requires a considerable effort and targeted approach. The type of business e.g., production plant can be quite dangerous and employers might be afraid for the safety of disabled people and the impact this could have, given the strict legislation enforced on employers” (Q66, response 80).

“I think it is the result of a combination of: The ignorance around the range and impact of disability (it is seen as far greater than it is in reality). The prohibitive costs of adapting premises. The lack of education around the huge employment possibilities which could be opened up to people living with disability. The word disability which is negative and unhelpful” (Q66, response 86).

“In our organization, access to the construction plants and projects is the biggest prohibit or as the client requirement and health and safety precautions would in many cases not allow PWD onto projects. Second is the perception that the accommodation and demands from PWD could become unreasonable and would result in an unhappy workforce” (Q66, response 103).

“Maybe because of the physical restraint that comes with the disabled person. Everything about that person is different. You have to have flexi time, special infrastructure, special training, etc.” (Q66, response 135).

“PWD not having the experience, skills or qualifications required for the position” (Q66, response 145).

“Some companies don’t have the management drive or their environment might be of such a nature that they cannot accommodate PWDs. Some companies might find it too costly to change the environment to accommodate PWDs” (Q66, response 178).

“No reluctance, just a limited number of skilled resources” (Q66, response 146).

“Not reluctant but more about finding the right people to suit the job” (Q66, response 150).

6.3.1.2 Unemployed persons with physical disabilities

a *The respondent wishes to work*

Based on secondary data from the National Income Dynamics Study (2008 and 2011) and a rural case study, Graham et al. (2014) determined that almost half of persons with disabilities in their study were unemployed with no desire to work, be it owing to them having severe disabilities or they discontinued searching for employment for health-related reasons or they had become despondent. Marsay (2014) referred to a negative self-esteem, inaccessibility and lack of transportation as challenges faced by persons with disabilities. Table 6.16 below reflects whether the respondent wished to work.

Table 6.16
Wishes to work

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	121	77.1	77.1	77.1
No	36	22.9	22.9	100.0
Total	157	100.0	100.0	

A large proportion of the respondents (77.1%, n=121) indicated that they wished to work.

b *Reasons for not securing employment*

There could be numerous reasons for the person with a physical disability being unsuccessful at securing employment, as elaborated on in Chapters 2 and 3. Furthermore, such reasons could include, inter alia, inaccessible buildings and transport (Seirlis & Swartz, 2006), stereotyped perceptions (Shakespeare, 2014), low self-efficacy in seeking a job (Barlow et al., 2008) and a lack of knowledge about available accommodation and assistive technology (Gold et al., 2012). In the case of this study, the respondents generally ascribed the reasons for not securing

a job to their impaired functionality as a result of their disability. As reported under Theme 6, they were underutilising employment agencies and relying on direct applications to organisations, friends and family. Table 6.17 below depicts the reasons for not finding a job.

Table 6.17

Reasons for not finding a job

Reasons	Responses		
	N	Percent	Percent of Cases
Physical injuries including loss of a limb	73	39.7	47.7
State of the economy/scarcity of jobs	41	22.3	26.8
Reduced mobility	17	9.2	11.1
Neurological injuries/brain/memory/epilepsy	17	9.2	11.1
Regard self as unemployable	7	3.8	4.6
Job application rejected/ignored (reason unknown)	6	3.3	3.9
Lack of mobility/paraplegia	5	2.7	3.3
Unsure which job he/she can execute	5	2.7	3.3
Sensory injury/reduced vision or hearing	3	1.6	2.0
Medically boarded	3	1.6	2.0
Slower work pace	2	1.1	1.3
Busy studying, not looking	2	1.1	1.3
Not looking for a job	2	1.1	1.3
Afraid to work/interact with others	1	0.5	0.7
Total	184	100.0	120.3

This was a multiple response question. In total, 184 reasons were indicated. On average, each respondent gave 1.20 different reasons for not securing a job. The most frequent reason provided was physical injuries including loss of a limb (47.7%, n=73). These findings are supported by the following verbatim quotes:

“I can only use one hand and believe I am unemployable” (Respondent 64);

“They don’t call me when I apply” (Respondent 60);

“My leg pains severely when trying to work and walking with a stick” (Respondent 56); and

“Spinal cord problems. Work is also scarce these days” (Respondent 48).

c Reasons provided for unsuccessful applications

There could be numerous reasons for organisations declining job applications, including any of the causes of exclusion of persons with physical disabilities from employment, as covered in Chapter 2. Figure 6.9 below reflects the reasons for job applications being declined.



Figure 6.9 Reason for job application being declined

The largest single proportion of the respondents (35.0%) indicated that the question was not applicable since they had not applied for a job. However, a large proportion (58.0%) had been ignored or rejected in their application for a job. These findings are supported by the following verbatim quotes:

“They fear I might hurt myself” (Respondent 30);

“Promise and not calling me” (Respondent 46); and

“Being dependent on people to help me find work” (Respondent 42).

6.3.1.3 Employed persons with physical disabilities

Obstacles or adverse experiences encountered in the pursuit of employment were reported. Aspects such as the state of the economy, and therefore the availability of jobs, as well as the level of education of the job seeker, could play a role in the pursuit of employment. Kaye (2010) analysed data from the US Current Population Survey (CPS) and discerned that, as a result of the 2007 to 2009 recession, workers with disabilities were left highly vulnerable to loss of employment. Those affected most were the ones with mobility impairment, younger adults, incumbents of medium-skill jobs, men and workers with disabilities without a tertiary education. Table 6.18 below reveals the obstacles or negative experiences which transpired while job seeking.

Table 6.18

Obstacles or negative experiences which transpired while job seeking

Obstacles	Frequency	Percent	Valid Percent	Cumulative Percent
No adverse experiences	66	42.6	42.6	42.6
Struggled to secure a job/scarcity of jobs	51	32.9	32.9	75.5
Rejected/"regretted"	29	18.7	18.7	94.2
N/A, self-employed	6	3.9	3.9	98.1
Inadequate education	1	.6	.6	98.7
Needed a sympathetic employer	1	.6	.6	99.4
Told to "buy" the job	1	.6	.6	100.0
Total	155	100.0	100.0	

The largest single proportion of the respondents (42.6%, n=66) reported that they had not encountered any negative experiences when seeking employment, while one third (32.9%, n=51) had experienced a scarcity of jobs. Those whose applications were rejected, did not know the reasons for such.

6.3.1.4 *Interpretation of theme 1*

In interpreting patterns that emerged from the results and findings generated by the data, convergent findings (similarities) and divergent findings (differences) are derived predominantly from the responses of the majority of the participants to a particular question.

The results and findings emanating from theme 1, which depicted the willingness of employers to employ persons with physical disabilities, revealed predominantly divergent findings. Respondents indicated that their particular organisation generally maintained a more progressive than conservative culture, which would suggest, *inter alia*, flexibility (Wooten & James, 2005), diversity (Ball et al., 2005) and management commitment to the employment of persons with disabilities (Chan et al., 2010). Furthermore, their organisations were willing to employ persons with physical, neurological, sensory and psychosocial disabilities in any type of job (“across the board”), although they would be more amenable to physical disabilities than psychosocial ones (Ren et al., 2008; Waterhouse et al., 2010).

Contrary to these indications that employers would be willing to employ persons with disabilities, in several instances their text responses to the open-ended questions reflected clear misgivings, as illustrated in Table 6.15 and the accompanying verbatim quotes. While some of these reservations are covered by other themes, it emerged that employers generally lacked knowledge of disability matters, including accommodation. Furthermore, some perceived persons with disabilities as lacking in competence, productivity, skills and tolerance for work pressure; considered alterations, accommodation and assistive technology as expensive; viewed persons with disabilities as cumbersome to manage; evaluated the organisation’s environment and work processes as unsuited to persons with disabilities; foresaw absenteeism; etc.

In contrast, persons with physical disabilities involved in this study, reported that they wished to work but their disability, including impaired mobility, was the main

reason for them not securing a job. Furthermore, more than half of them found that their job applications had been ignored or rejected for reasons either unknown or related to their disability. In line with the findings of Graham et al. (2014), more than one third of the unemployed persons with physical disabilities had not applied for a job, as illustrated in Figure 6.9.

Theme 1 unveiled disparity between the perspectives of employers and the experiences of persons with physical disabilities, which could be ascribed to, inter alia, a lack of knowledge of and exposure to persons with disabilities and disability matters on the part of employers (Australian Human Rights Commission, 2016; Paetzold et al., 2008) and a lack of self-efficacy of persons with disabilities in seeking employment (Barlow et al., 2008).

These findings can be related to research aim 1 of this study, namely to adopt a convergent mixed methods research approach in order to ascertain the causes of exclusion of persons with physical disabilities from employment in the South African formal sector. Furthermore, employers declared that they were unable to locate suitably qualified persons with disabilities. This aspect will be addressed in theme 6, but it became clear that the main strategies adopted by employers to recruit persons with disabilities (printed media, internet, specialised employment agencies, etc.) differed from the methods chiefly used by persons with physical disabilities to seek employment (direct application, friends, family), which suggests incongruence in their respective approaches. Other causes of exclusion of persons with physical disabilities from the workplace, as expounded on in Chapter 2, resort under different themes, presented in the appropriate sections of this chapter. The implications of the results and findings are contained in section 6.4, while the associated meta-inferences (Venkatesh et al., 2013) are presented in Chapter 7.

6.3.2 Theme 2: Perceived competency level of persons with physical disabilities

Competence is a complex phenomenon comprising several dimensions as discerned by numerous researchers. In their respective research endeavours, Brennan et al. (2003), Bruyère et al. (2004), Chan et al. (2010), Dixon et al. (2003), Domzal et al. (2008), Fraser et al. (2010), Goldstone (2002), Graffam et al. (2002), Green and Brooke (2001), Hernandez et al. (2008), Kaye et al. (2011), Louvet (2007), Peck and Kirkbride (2001), Ren et al. (2008) and Waterhouse et al. (2010) ascertained that employers had concerns about the competence of persons with disabilities. In essence, these misgivings entailed unsatisfactory levels of productivity; different performance standards expected; lack of skills and experience; adverse impact on team performance outcomes; time-consuming dependence on co-workers and supervisors for support or assistance; additional supervisory time; absenteeism; need for flexitime and/or modified shifts; inflexibility in rotating between tasks or jobs; inadequate tolerance for work pressure; increased staff turnover; and limited promotability.

6.3.2.1 Employers

a Skills and work experience

A perception exists that persons with disabilities often lack the skills and experience required for available positions. Figure 6.10 below shows the measure of agreement with the statement that persons with disabilities often lack the required skills and experience.

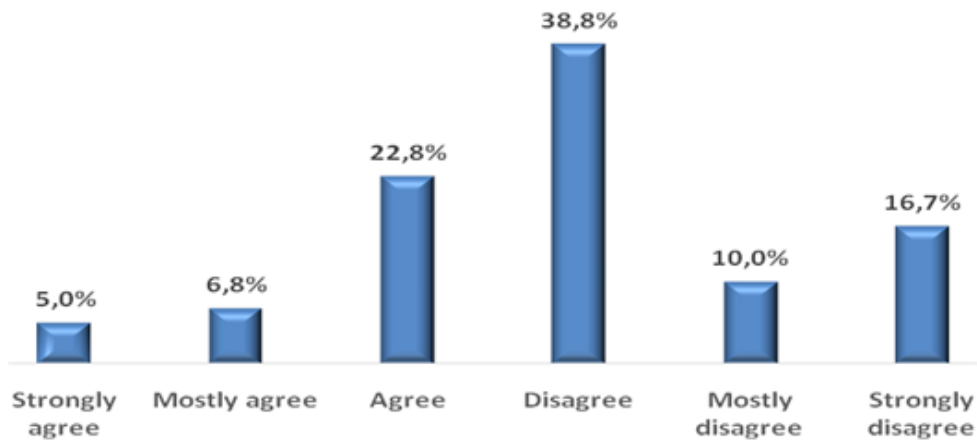


Figure 6.10 Persons with disabilities often lack the required skills and experience

A total of 281 responses to this item was obtained, of which the majority of respondents (65.5%) indicated disagreement with the perception that persons with disabilities often lack the competence required for available positions.

b Productivity

Persons with disabilities are often viewed as less productive than able-bodied employees (e.g., lower standard of job performance, slower work speed, unreliability, less endurance/capacity for pressure, absenteeism, higher staff turnover, etc.). Table 6.19 below illustrates the measure of agreement with the statement that persons with disabilities are less productive than their able-bodied peers.

Table 6.19

Persons with disabilities are less productive than their able-bodied peers

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	5	1.5	1.8	1.8
Mostly agree	13	3.8	4.6	6.4
Agree	73	21.3	26.0	32.4
Disagree	113	33.0	40.2	72.6
Mostly disagree	33	9.6	11.7	84.3
Strongly disagree	44	12.9	15.7	100.0

Total	281	82.2	100.0
Missing	61	17.8	
Total	342	100.0	

A total of 281 responses to this item was obtained, of which the majority of respondents (67.6%, n=190) indicated disagreement with the perception that persons with disabilities are less productive than their able-bodied counterparts.

c Development and promotion

Persons with disabilities are ostensibly considered less likely to be developed or promoted. Figure 6.11 below displays the measure of agreement with the statement that persons with disabilities are less likely to be developed or promoted.

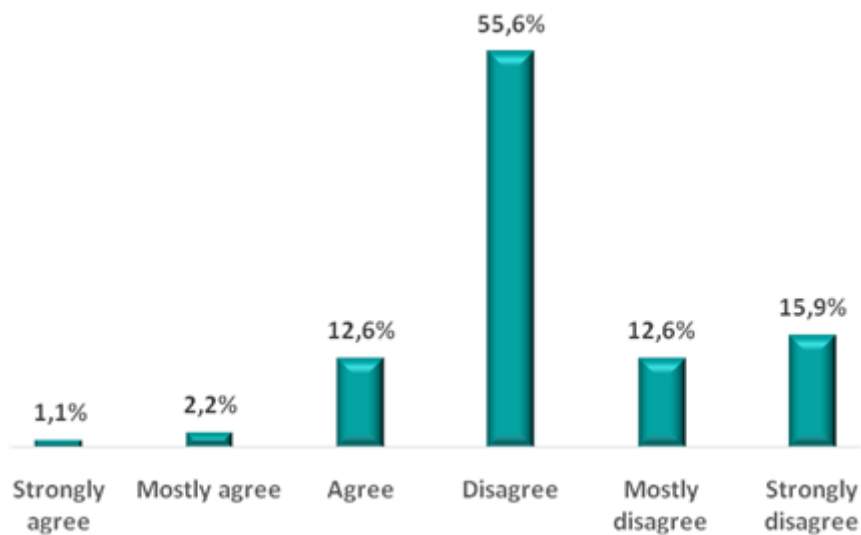


Figure 6.11 Persons with disabilities are less likely to be developed or promoted

A total of 277 responses to this item was obtained, of which the vast majority of respondents (84.1%) indicated disagreement with the perception that persons with disabilities are less likely to be developed or promoted.

d Dependence on assistance

Persons with disabilities are purported to be reliant on assistance and therefore increase the workload of their colleagues and supervisors. Table 6.20 below depicts the measure of agreement with the statement that persons with disabilities depend more on assistance from colleagues than their able-bodied peers.

Table 6.20

Persons with disabilities depend more on assistance from colleagues than their able-bodied peers

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	2	.6	.7	.7
Mostly agree	14	4.1	5.1	5.8
Agree	81	23.7	29.2	35.0
Disagree	132	38.6	47.7	82.7
Mostly disagree	29	8.5	10.5	93.1
Strongly disagree	19	5.6	6.9	100.0
Total	277	81.0	100.0	
Missing	65	19.0		
Total	342	100.0		

A total of 277 responses to this item was obtained, of which the majority of respondents (65.0%, n=180) indicated disagreement with the perception that persons with disabilities depend more on assistance from their colleagues (supervisors and co-workers) than their able-bodied peers.

e Special treatment

A perception exists that persons with disabilities need special treatment (e.g., flexitime, accommodation, accessibility, less work pressure, more leniency, etc.). Figure 6.12 below reflects the measure of agreement with the statement that persons with disabilities need special treatment.

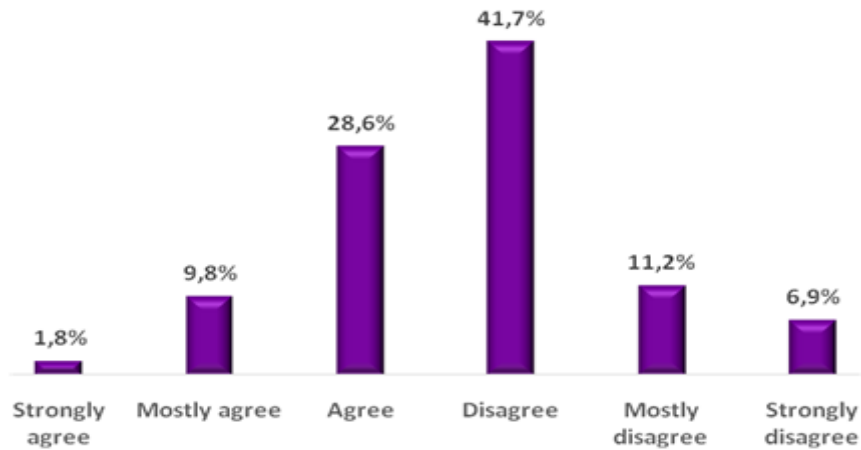


Figure 6.12 Persons with disabilities need special treatment

A total of 276 responses to this item was obtained, of which the majority of respondents (59.8%) indicated disagreement with the perception that persons with disabilities need special treatment, for example flexitime, accommodation, accessibility to buildings, less work pressure, leniency in respect of job performance assessments, etc.

f Performance standards

Opposing standpoints exist as to whether or not persons with disabilities should be evaluated against the same performance criteria as able-bodied employees. Table 6.21 below shows the measure of agreement with the statement that persons with disabilities should be subjected to the same performance standards as able-bodied employees.

Table 6.21

Persons with disabilities should be subjected to the same performance standards as able-bodied employees

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	56	16.4	19.9	19.9
Mostly agree	52	15.2	18.5	38.4
Agree	133	38.9	47.3	85.8
Disagree	27	7.9	9.6	95.4

Mostly disagree	9	2.6	3.2	98.6
Strongly disagree	4	1.2	1.4	100.0
Total	281	82.2	100.0	
Missing	61	17.8		
Total	342	100.0		

A total of 281 responses to this item was obtained, of which the majority of respondents (85.8%, n=241) indicated agreement with the perception that persons with disabilities should be subjected to the same performance standards as their able-bodied counterparts. However, 36 respondents either disagreed or placed a condition on acceptance of this viewpoint, namely that it depended on the nature of the disability versus the job/context; persons with disabilities function differently and/or slower, thus cannot be subjected to the same performance standards; adapted performance standards are needed to ensure fairness; where appropriate accommodation is in place, the same performance standards should apply; and they need time away from work for treatment.

Disagreement with the standpoint that persons with disabilities should be subjected to the same performance standards as able-bodied employees is supported by the following verbatim quotes:

“Depending on the nature of the employee’s disability, this may set them up for failure. The performance evaluation should take into consideration the work environment (such as barriers to work for physical disabilities) as well as the levels of ability in case of neuro-, sensory- etc. disabilities. However, this should be defined within the job grading from the outset” (Q49b, response 10).

“A person with one arm or amputated fingers cannot type a document as fast as an individual with two arms and a full hand. It raises an issue of ‘unfairness’ to set the same performance objectives. PWD’s performance should be set on their capabilities and adapting certain standards to accommodate their incapacities” (Q49b, response 13).

“PWD already has some adjustments made to their ability to perform their respective tasks, they still have the disability and challenge to perform their jobs, it would be unfair to subject them to the same standards as able-bodies. Performance

standards should be agreed to when employed and line managers should be very aware of what can and can't be expected from all employees in their teams" (Q49b, response 31).

"It would depend on whether certain adjustments were already made to accommodate the person in the role, in which case the rating would be based on the requirements of the role as specified" (Q49b, response 27).

g Positive experiences with persons with physical disabilities

The question arose as to whether experiences with employing persons with physical disabilities had been positive, in general. Figure 6.13 below discloses that generally, experiences with employing persons with physical disabilities had been positive.

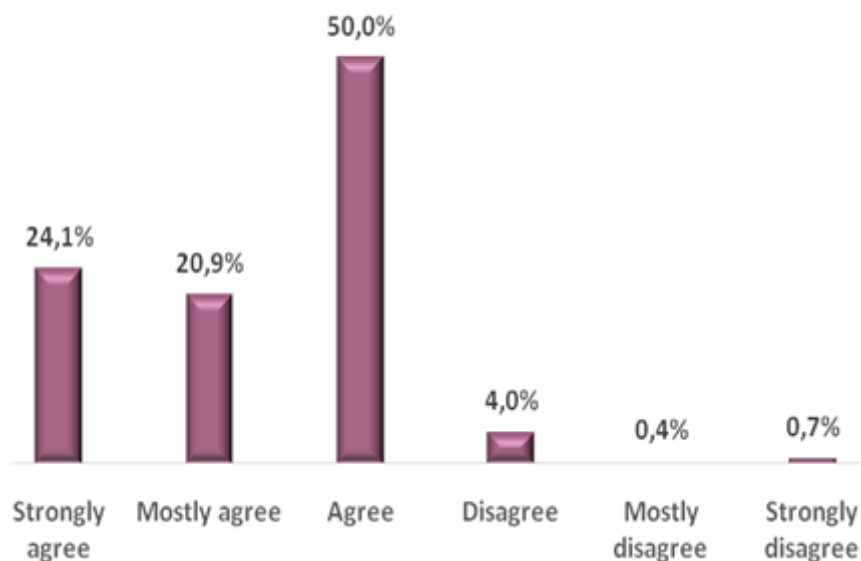


Figure 6.13 Generally, experiences with employing persons with physical disabilities had been positive

A total of 278 responses to this item was obtained, of which the vast majority of respondents (95.0%) indicated agreement with the statement that, generally, their experiences with employing persons with physical disabilities had been positive.

Furthermore, it was reported by the overwhelming majority of respondents that feedback from supervisors who oversaw persons with physical disabilities had been positive, as reflected in Table 9D in Appendix D. The handful (5.1%) of respondents who disagreed with the statement reported that they had experienced a lack of commitment, a lack of skills, a lack of experience, a low level of job performance, absenteeism, a negative attitude and ill health on the part of persons with physical disabilities.

h Mastery of the organisation's processes and technology

The technology and work processes utilised by an organisation would indicate the sector in which it operates and the nature of work involved. Blanck et al. (2007), Dixon et al. (2003), Goldstone (2002), Gouvier et al. (2003), Kaye et al. (2011), Luecking (2008), Robert and Harlan (2006) and Schriener (2001), reported research findings that suggested the existence of a relationship between the nature of work and employers' willingness or reluctance to hire persons with disabilities, mainly centred around their perceived competence to do the job. Table 6.22 below displays whether the organisation's work processes and technology could be mastered by a person with a physical disability e.g., an amputated leg, wheelchair user, etc.

Table 6.22

The organisation's work processes and technology could be mastered by a person with a physical disability e.g., amputated leg, wheelchair user, etc.

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	45	13.2	15.7	15.7
Mostly agree	35	10.2	12.2	28.0
Agree	117	34.2	40.9	68.9
Disagree	51	14.9	17.8	86.7
Mostly disagree	14	4.1	4.9	91.6
Strongly disagree	24	7.0	8.4	100.0
Total	286	83.6	100.0	
Missing	56	16.4		
Total	342	100.0		

The proportions at the lower end of the scale are larger than those at the higher end, indicating that the majority of respondents (68.9%, n=197) tended to agree that their organisation's work processes could be mastered by a person with a physical disability. However, almost one third of those who responded to the question disagreed. This aspect was analysed further in section 6.3.9 to determine the impact of industrial sector on this dimension.

i Customer reactions

The perceived impact of employing persons with disabilities on the organisation's image would relate to stereotyped attitudes. Kalb (2016) described corporate image as the image of the creator of products and determines how others perceive the leader of the organisation or the latter in itself. This image can either enable the achievement of goals or block attainment. Figure 6.14 below illustrates whether the organisation has concerns about customer reactions to dealing with an employee with a visible of physical disability.

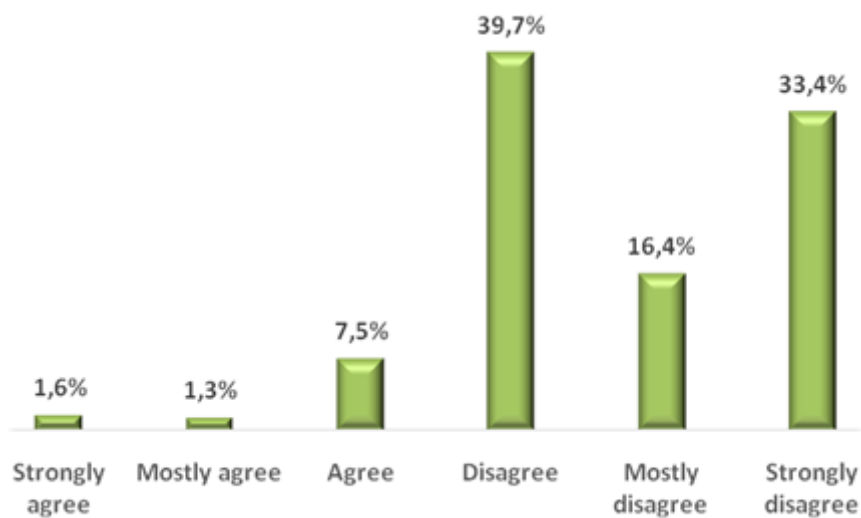


Figure 6.14 The organisation has concerns about customer reactions to dealing with an employee with a visible or physical disability

The proportions at the higher end of the scale are larger than those at the lower end, indicating that the vast majority of respondents (89.5%) disagreed that the organisation had concerns about customer reactions to dealing with an employee with a visible or physical disability. The handful (10.4%) of respondents who agreed with the statement, felt that customers would view persons with disabilities as lacking in competence to execute the job; or that the professional image in frontline or customer service jobs might become compromised. These perceptions are supported by the following verbatim quote:

“Company is very conservative in their outlook, will not even hire a front line employee if he/she has visible tattoos. Company feels that its frontline or client interacting employees with disabilities will not project the image of the company as a professional, work driven environment. However, the company’s concerns about the anticipated reactions are not as great as their concern regarding the cost of accommodating employees with disabilities and what accommodations managers will have to make to manage employees with disabilities” (Q37b, response 2).

6.3.2.2 Unemployed persons with physical disabilities

a Skills required to secure employment

As reported by Sipuka (2011), persons with disabilities stated that “No education, no future”, while Ximba (2016) found that the absence of post-matric qualifications left persons with disabilities with a lack of job options. These findings tally with those of the WHO (2011) as reflected in Chapter 3. Table 6.23 below discloses the skills needed to secure a job.

Table 6.23

Skills needed to secure a job

Skills	Frequency	Percent	Valid Percent	Cumulative Percent
None has the skills	40	25.5	25.5	25.5
Unsure	30	19.1	19.1	44.6
IT/computer skills	25	15.9	15.9	60.5
Business skills	24	15.3	15.3	75.8
Technical/job-related skills	20	12.7	12.7	88.5
Diploma/degree	6	3.8	3.8	92.4
Admin skills	4	2.5	2.5	94.9
Driver's licence	4	2.5	2.5	97.5
Grade 12	3	1.9	1.9	99.4
Catering skills	1	0.6	0.6	100.0
Total	157	100.0	100.0	

One quarter of the respondents (25.5%, n=40) believed that they already possessed the necessary skills while nearly one fifth (19.1%, n=30) were unsure about the skills they would need to secure a job. The former finding is supported by the following verbatim quote:

“I have skills which qualify me for a job” (Respondent 36).

b Adverse experiences when last employed

Schur et al. (2009) found that persons with disabilities encountered a number of disparities at work, including lower pay, fewer benefits, diminished job security, higher levels of supervision, lower participation in decisions and less formal and informal training. These partly explained the higher probability of staff turnover and lower levels of company loyalty and job satisfaction. Figure 6.15 below reflects the nature of negative experiences in the last job held.



Figure 6.15 Negative experiences in the last job

More than half of the respondents (51%) indicated that they had not had an adverse experience at their last job. However, those who did, provided diverse descriptions ranging from difficulty with executing the job to poor treatment. Being left without a suitable alternative job and dismissal could have been related to a perceived lack of competence post-injury. The findings are supported by the following verbatim quotes:

“They told me that I am not working fast” (Respondent 58); and
 “Difficulty in carrying heavy materials used to build” (Respondent 55).

c Reason for termination of service

Unemployed persons with physical disabilities were questioned about the reason for leaving their last job. Table 6.24 below shows the reasons for leaving the last job held.

Table 6.24

Reason for leaving last job

Reasons	Frequency	Percent	Valid Percent	Cumulative Percent
Accident-related injuries	88	56.1	56.1	56.1
N/A, was not employed	24	15.3	15.3	71.3
Dismissed	17	10.8	10.8	82.2
Company closed	12	7.6	7.6	89.8
Retrenched	10	6.4	6.4	96.2
Medically boarded after accident	4	2.5	2.5	98.7
Sought better offer	1	0.6	0.6	99.4
Reasons unrelated to the accident	1	0.6	0.6	100.0
Total	157	100.0	100.0	

More than half of the respondents (56.1%, n=88) indicated that they had left their previous job because of their accident-related injuries, which would therefore imply that they had forfeited their employment owing to their acquired disability. These findings are supported by the following verbatim quotes:

“I was not accepted back at work after accident” (Respondent 66); and
 “Left work because I couldn’t stand long” (Respondent 28).

d Future goals and plans envisaged

In line with the theme on competence, it was prudent to establish the respondents’ future goals and plans, particularly in the event that they envisaged advancement, such as improving their qualifications or starting a business. As presented in Chapter 3, the presence of disability influences a person’s values and priorities. According to Athanasou (2017), when disability occurs following personal injury, major personal adjustment is required since former life assumptions, plans and aspirations are stifled. Gill (2001) posited that persons with acquired disabilities resulting from personal injury or illness, developed new attainable goals and a keener perception of life. Figure 6.16 below depicts the respondents’ future goals and plans.

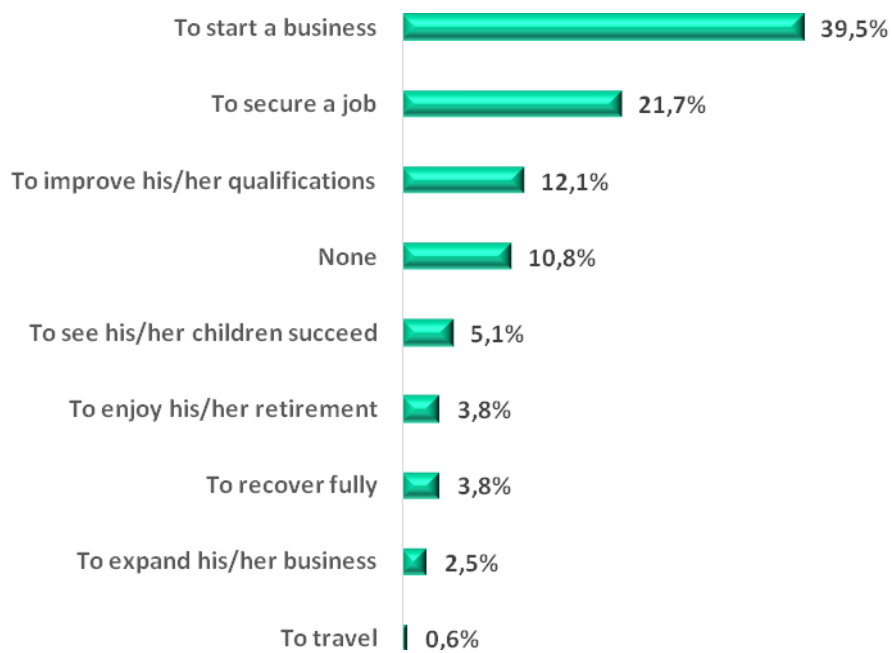


Figure 6.16 Future goals and plans

More than one third of the respondents (39.5%) would like to start a business in the future and therefore become self-employed, while a proportion (12.1%) planned to improve their qualifications. These findings are supported by the following verbatim quotes:

“Go make business” (Respondent 67); and

“I wish to further my studies and get a diploma” (Respondent 35).

6.3.2.3 Employed persons with physical disabilities

a Current competencies and promotion

The specific current competencies reported were unique to the individual respondents and therefore not amenable to tabulation. These responses included being “good” at his/her job overall; competent at handling difficult clients/colleagues; problem-solving; computer work; interacting with people; leading/managing others; teaching/training; selling; and project management.

These findings are supported by the following verbatim quotes about competencies:

“Sports and computer” (Respondent 19);

“Computers and customer care” (Respondent 10); and

Career stagnation and demotion relating to disability were reported to Ximba (2016). In this study, the respondents were questioned about whether they had been promoted since their injury and the majority reported that they had not. Promotions where applicable, were generally to the next obvious level, say, from team leader to foreman, from constable to sergeant, from shift supervisor to senior supervisor, etc. In several cases the respondents had only commenced with employment at their current employer after being injured and had not yet been promoted.

b Skills training

As alluded to in a previous section, skills training is crucial for persons with disabilities to secure employment. In respect of skills training undergone in the preceding year, the respondents reported a large variety of courses which included tertiary qualifications (certificates, diplomas); information technology/computer operating; nursing; security; driving; electrical installations; welding; plumbing; boilermaking; sales; baking; photography; mining operations; product training; project management; health and safety; policing; and forklift operating. Furthermore, the respondents indicated the skills training still required for the improvement of their job performance. Apart from the desire of some to pursue tertiary qualifications, skills courses coveted included accounting/financial skills/Pastel; IT/computer skills; security management; a driver’s licence; marketing skills; paint-mixing skills; human resources management; business skills; graphic design; public management; landscaping; operating earthmoving machinery; catering skills; and interior decorating.

c Adverse experiences at work

Negative or unpleasant experiences at work as encountered by persons with disabilities could include any of the many aspects covered in Chapters 2 and 3. These could include, inter alia, a lack of knowledge about disability matters on the part of able-bodied persons (Barr & Bracchitta, 2008; Copeland et al., 2010); reduced work capacity (Fraser et al., 2010; Hernandez et al., 2008; Waterhouse et al., 2010) and interpersonal discrimination (Robert & Harlan, 2006). Table 6.25 below displays the nature of negative or unpleasant experiences at work.

Table 6.25

Negative or unpleasant experiences at work

Negative experiences	Responses		
	N	Percent	Percent of Cases
Difficulty executing the job (heavy physical tasks, standing, pressure, slow speed, shift work)	50	30.7	32.3
None, no negative aspects	45	27.6	29.0
Working with pain	18	11.0	11.6
Unpleasant/dangerous/hazardous working conditions	15	9.2	9.7
Problematic relationships with colleagues (e.g., intolerance, not being taken seriously, being ridiculed)	14	8.6	9.0
Low remuneration	12	7.4	7.7
Lack of promotional opportunities	5	3.1	3.2
Fear of dismissal/threats	3	1.8	1.9
Being stared at by others	1	0.6	0.6
Total	163	100.0	105.2

This was a multiple response question. In total, 163 negative experiences were indicated. On average, each respondent reported 1.05 different negative experiences. The single most frequent negative experience emerged as difficulty with executing the job (30.7%, n=50). These findings are supported by the following verbatim quotes:

“Heavy load of work. Now I have back pain” (Respondent 21);
“When colleagues are laughing at their own things, it feels they are joking about my being in a wheelchair” (Respondent 4); and
“My neck and back are injured. I can’t do things fast” (Respondent 29).

d Job security

Dismissal as a result of a person’s disability was reported in the literature by, inter alia, Shier et al. (2009) and Snyman (2009). Figure 6.17 below depicts feelings about job security in the current role.

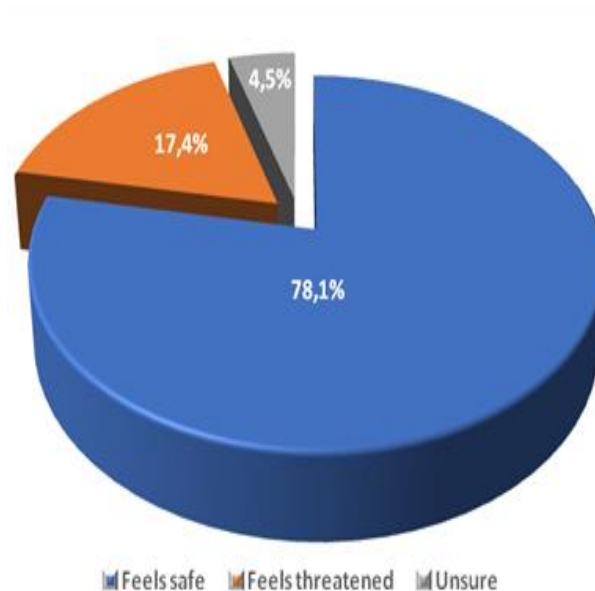


Figure 6.17 Feelings about job security in the current role

A large proportion of the respondents (78.1%) felt that their jobs were safe. However, those who perceived a threat to their job security (17.4%) indicated, inter alia, that should his epilepsy became worse, he would be dismissed; intolerance of his slowness; too many medical appointments; hinted at to quit due to reduced competence; not being appointed on a permanent basis; likely job loss in the event of a new subcontractor; staying off work due to pain; and his medical history places him at risk. These findings are supported by the following verbatim quotes:

“I am not permanent. Anything may happen” (Respondent 59);
 “I am slow now, so they cannot tolerate me much” (Respondent 66); and
 “If I stay away from work due to pain, I can be fired” (Respondent 144).

e Positive experiences at work

As opposed to the causes of exclusion of persons with physical disabilities from employment as expounded on in Chapters 2 and 3, on a positive note, Marsay (2014) conducted a study of successful persons with disabilities and it emerged that they chose or created an enabling environment that was aligned with their abilities and need for flexibility. They revealed a good ethic with a willingness to work hard with dedication; had support from superiors, colleagues and family; and possessed self-knowledge about their strengths and weaknesses. Figure 6.18 below reflects the nature of positive experiences in the current job.



Figure 6.18 Positive experiences in the current job

This was a multiple response question. In total, 180 positive experiences were indicated. On average, each respondent reported 1.16 different positive experiences. The most frequent positive experience divulged entailed gaining

knowledge, skills and experience (25.8%). These findings are supported by the following verbatim quotes:

“Work keeps me very busy and I learn to interact with different types of people” (Respondent 22);

“Learning various areas of nursing needs” (Respondent 12);

“Good salary and benefits. Awesome colleagues” (Respondent 6); and

“Flexible hours, friendly colleagues” (Respondent 44).

Conversely, almost one quarter (23.2%) indicated “none”, implying an absence of positive experiences at work.

f Future goals and plans envisaged

In line with the theme on competence, it was prudent to establish the respondents’ future goals and plans, particularly in the event that they envisaged further advancement, such as improving their qualifications or starting a business. As alluded to in section 6.3.2.2, the presence of a disability influences a person’s values and priorities (Gill, 2001). Figure 6.19 below discloses the respondents’ future goals and plans.

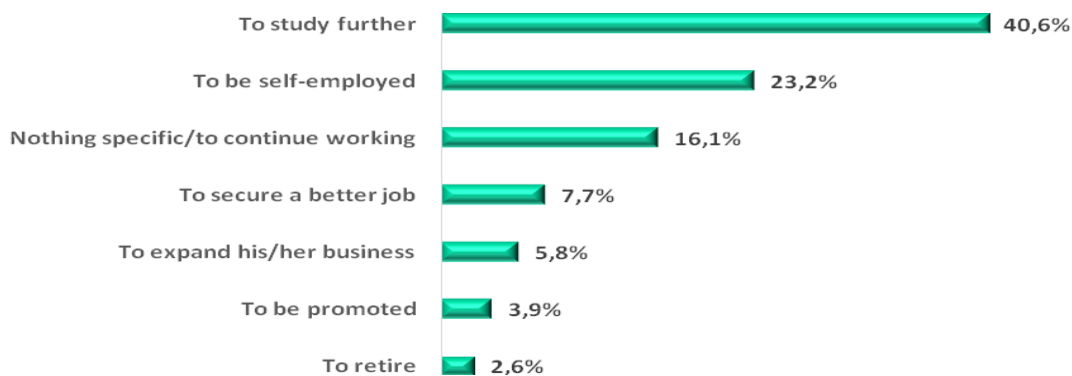


Figure 6.19 Future goals and plans

To study further was a goal envisaged by a large proportion (40.6%) of the respondents, followed by the desire to be self-employed (23.2%). These findings are supported by the following verbatim quotes:

“To grow big in the entertainment industry” (Respondent 47);

“To open a fish and chips shop” (Respondent 32); and

“To have my own crèche” (Respondent 8);

6.3.2.4 Interpretation of theme 2

In interpreting patterns that emerged from the results and findings generated by the data, convergent findings (similarities) and divergent findings (differences) are derived predominantly from the responses of the majority of the participants to a particular question.

The results and findings that emanated from theme 2, which depicted the perceived competency level of persons with physical disabilities, revealed convergent and divergent findings, unexpected ones and findings in contradiction with the theory. To reiterate, Brennan et al. (2003), Bruyère et al. (2004), Chan et al. (2010), Dixon et al. (2003), Domzal et al. (2008), Fraser et al. (2010), Goldstone (2002), Graffam et al. (2002), Green and Brooke (2001), Hernandez et al. (2008), Kaye et al. (2011), Louvet (2007), Peck and Kirkbride (2001), Ren et al. (2008) and Waterhouse et al. (2010) ascertained employers' concerns about the competence of persons with disabilities.

Conversely, in this study, the majority of employers disagreed with the perceptions that persons with disabilities often lacked the required skills and work experience; were less productive; were less likely to be developed or promoted; depended more on assistance from colleagues; and needed special treatment such as flexitime, accommodation, less work pressure, and so forth. Therefore, it could have been expected that they would mostly agree that persons with disabilities should be subjected to the same performance criteria as their able-bodied peers.

In contrast, unemployed persons with physical disabilities acknowledged that they required training in, inter alia, computer skills, technical skills, administrative skills and/or tertiary qualifications. However, employed persons with physical disabilities indicated several areas in which they considered themselves competent, as well as a variety of skills courses they had attended in the preceding year, but the majority had not yet been promoted. The views of employed persons with physical disabilities could thus be aligned with the perceptions of the sample of employers in general, namely that persons with disabilities were considered to be competent. Employed persons with physical disabilities divulged a number of positive work-related experiences, inter alia, gaining knowledge, skills and experience; promotional opportunities exist; good remuneration; the job content/hours suit his/her disability; friendly colleagues; working with people; and the opportunity to study further. These findings would tally with the majority of employers' responses that their experiences with employing persons with physical disabilities had been positive.

However, both unemployed and employed persons with physical disabilities encountered adverse work-related experiences of which the main issues entailed difficulty executing their current or prior job owing to their disability and problematic work relations, including intolerance. Perhaps the employers were unaware of these issues. A large proportion of employed persons with physical disabilities reported job security, but a few felt that their health condition placed them at risk of dismissal. Several unemployed respondents had been dismissed, including medical boarding, post-injury. In respect of future goals, both groups of persons with physical disabilities coveted improved qualifications and self-employment. The majority of employers also did not have concerns about customer reactions to an employee with a visible or physical disability. The majority of employers agreed that a person with a physical disability could master the organisation's technology and work processes. This aspect is investigated more closely in section 6.3.9.

These findings can be related to research aim 1 of this study, namely to adopt a convergent mixed methods research approach in order to ascertain the causes of

exclusion of persons with physical disabilities from employment in the South African formal sector. Other causes of exclusion of persons with physical disabilities from the workplace, as expounded on in Chapter 2, resort under different themes, presented in the appropriate sections of this chapter. The implications of the results and findings are contained in section 6.4, while the associated meta-inferences (Venkatesh et al., 2013) are presented in Chapter 7.

6.3.3 Theme 3: Accommodation and assistive technology

Forms of accommodation required to facilitate the employment of persons with disabilities include, inter alia, workplace design and modification of the environment to enable accessibility, such as ramps, elevators, wide doorways, adjustable heights of shelves and desks, location of the job, accessible cloakrooms, modular/adjustable furniture, designated parking bays and so forth. Job-related forms of accommodation include job restructuring, job support and flexible hours of work, schedules and deadlines. (SAHRC, 2017). Assistive technology refers, inter alia, to devices or special equipment required to enable the execution of work by a person with a disability in accordance with his or her type of disability, needs, preferences, capabilities and comfort (Driscoll et al., 2001). The facets of accommodation applicable to this section entail job-related modifications, physical accessibility, assistive technology and related cost.

6.3.3.1 Employers

a The organisation would be willing to make job-related modifications to accommodate persons with physical disabilities

Figure 6.20 demonstrates the measure of agreement about the organisation's willingness to make job-related modifications to accommodate persons with physical disabilities.

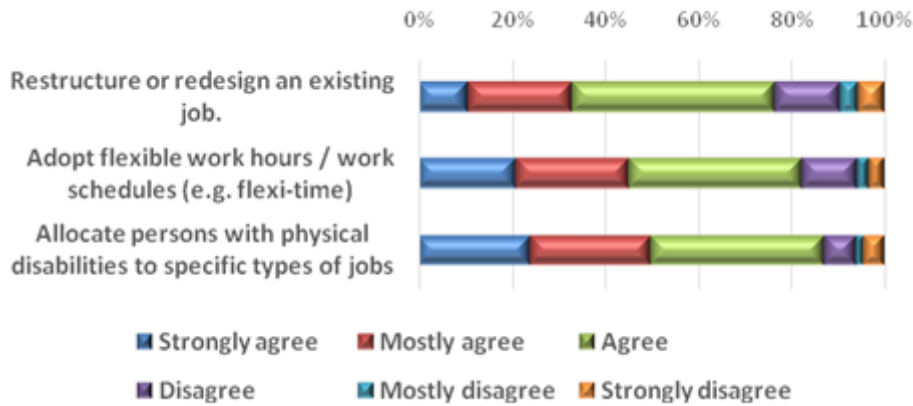


Figure 6.20 Willingness to make job-related modifications to accommodate persons with physical disabilities

Bearing in mind that lower scale values were associated with higher level of agreement, it was evident that the respondents mostly agreed rather than disagreed with the statement, implying receptivity to the suggested modifications. They also indicated having implemented ergonomic modifications to office layout, suitable location in the building, adjustable furniture, special equipment/software and automatic door-opening/swing doors. This aspect was analysed further in section 6.3.9 to determine the impact of industrial sector on this dimension.

b Physical accessibility

Table 6.26 below indicates the measure of agreement about whether the organisation’s premises are accessible to a person with a physical disability.

Table 6.26

The organisation’s premises are accessible to a person with a physical disability

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	87	25.4	26.3	26.3
Mostly agree	76	22.2	23.0	49.2
Agree	91	26.6	27.5	76.7
Disagree	46	13.5	13.9	90.6
Mostly disagree	11	3.2	3.3	94.0

Strongly disagree	20	5.8	6.0	100.0
Total	331	96.8	100.0	
Missing	11	3.2		
Total	34	100.0		

The proportions at the lower end of the scale are considerably larger than those at the higher end, indicating that the majority of respondents (76.7%, n=254) agreed that their organisation's premises were accessible to persons with physical disabilities. Concomitantly, where not yet implemented, the overwhelming majority of respondents (88%, n=278) agreed that their organisation would be willing to make reasonable structural alterations to their premises to facilitate physical access, as depicted in Table 10D in Appendix D.

c Assistive technology

The organisation has implemented assistive technology (e.g. special computer software, special keyboards, adjustable furniture, adjustable shelves, etc.). Figure 6.21 below illustrates whether assistive technology has been acquired.

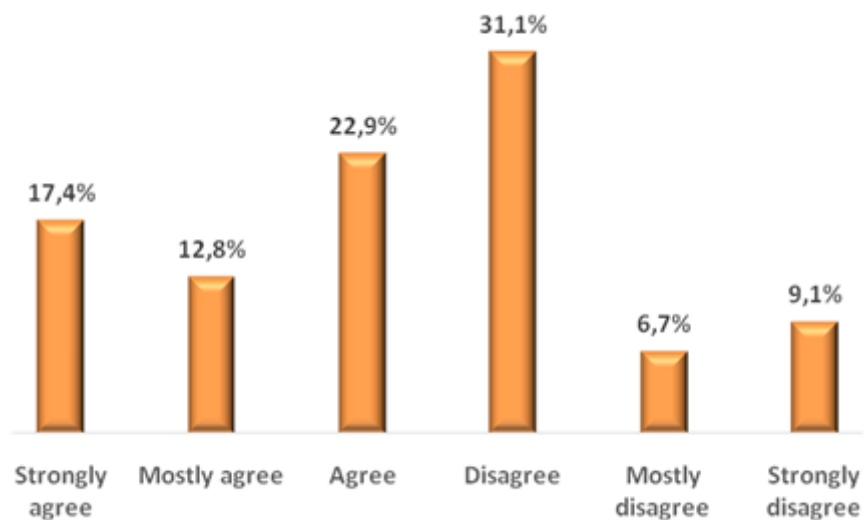


Figure 6.21 Assistive technology has been acquired

The proportions at the lower end of the scale were larger than those at the higher end, indicating that a small majority of respondents (53.1%) agreed that their organisation had implemented assistive technology. Concomitantly, where not yet implemented, the overwhelming majority of respondents agreed that their organisation would be willing to acquire the necessary assistive technology required by persons with disabilities, as illustrated in Table 11D in Appendix D

d Cost of accommodation and/or assistive technology

Numerous researchers such as Dixon et al. (2003), Domzal et al. (2008), Kaye et al. (2011), Langton and Ramseur (2001), Lengnick-Hall et al. (2005), Peck and Kirkbride (2001), Schur et al. (2005) and Younes (2001), all found in their respective studies that the perceived cost of accommodation and assistive technology created a major concern, enough to deter employers from hiring persons with disabilities. Table 6.27 below displays the measure of agreement with the statement that the perceived cost of accommodation and/or assistive technology/devices would prevent the company from employing a person with a disability.

Table 6.27

The perceived cost of accommodation and/or assistive technology would prevent the company from employing a person with a disability

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	18	5.3	5.4	5.4
Mostly agree	22	6.4	6.6	12.1
Agree	68	19.9	20.5	32.6
Disagree	120	35.1	36.3	68.9
Mostly disagree	44	12.9	13.3	82.2
Strongly disagree	59	17.3	17.8	100.0
Total	331	96.8	100.0	
Missing	11	3.2		
Total	342	100.0		

The proportions at the higher end of the scale are larger than those at the lower end, indicating that the majority of respondents (67.4%, n=223) disagreed that the perceived cost of accommodation and/or assistive technology would prevent their organisation from employing a person with a disability. This aspect was analysed further in section 6.3.9 to determine the impact of industrial sector on this dimension.

6.3.3.2 Unemployed persons with physical disabilities

These respondents were unemployed and therefore not utilising job-related accommodation or assistive devices.

6.3.3.3 Employed persons with disabilities

Employed persons with physical disabilities were questioned about the accommodation and/or assistive devices provided to them in the workplace. However, it became clear that many respondents had little or no knowledge about accommodation and assistive devices available to aid them. In the few cases where responses were provided, these included such accommodation and assistive devices as shorter working hours, flexitime, rest breaks, assistance from others, a transfer to another job, wheelchair accessible facilities, work transport, trolleys and a modified office.

6.3.3.4 Interpretation of theme 3

In interpreting patterns that emerged from the results and findings generated by the data, convergent findings (similarities) and divergent findings (differences) are derived predominantly from the responses of the majority of the participants to a particular question.

The results and findings emanating from theme 3, which addressed accommodation and assistive technology required by persons with disabilities,

revealed both expected and unexpected findings. The majority of employers indicated that their organisation would be willing to make job-related modifications such as restructuring or redesigning a job or adopting flexitime. Furthermore, the majority reported that their organisation had accessible premises and had acquired assistive technology and, where not yet the case, they would be willing to implement these measures. However, contrary to the theory, the sample of employers in this study tended to disagree that the perceived cost of accommodation and/or assistive technology would prevent their organisation from employing a person with a disability. As alluded to in Chapter 2 and earlier in this section, numerous researchers had found that the perceived cost of accommodation and assistive technology created a major concern on the part of employers. It can be assumed that in South Africa, the guidelines in respect of reasonable accommodation contained in the TAG have served to quell these trepidations, since the denial of reasonable accommodation is tantamount to unfair discrimination (RSA, 2017). An unexpected finding was that many of the employed persons with disabilities in the sample had little or no knowledge about accommodation and assistive devices available to aid them. In the few cases where responses were provided, these included such accommodation and assistive devices as shorter working hours, flexitime, rest breaks, assistance from others, a transfer to another job, wheelchair accessible facilities, work transport, trolleys and a modified office.

These findings can be related to research aim 1 of this study, namely to adopt a convergent mixed methods research approach in order to ascertain the causes of exclusion of persons with physical disabilities from employment in the South African formal sector. Other causes of exclusion of persons with physical disabilities from the workplace, as expounded on in Chapter 2, resort under different themes, presented in the appropriate sections of this chapter. The implications of the results and findings are contained in section 6.4, while the associated meta-inferences (Venkatesh et al., 2013) are presented in Chapter 7.

6.3.4 Theme 4: Negative co-worker reactions

Negative attitudes and stereotyped perceptions in respect of persons with disabilities have been studied by many researchers. Stereotyped perceptions culminate in barriers to employment as found by Ali et al. (2011), Dixon et al. (2003), Graffam et al. (2002), Hunt and Hunt (2004), Ren et al. (2008) and Schriener (2001). Fake assumptions were presumably made about traits that matched the disability and members of this group were viewed as objects of pity, demanding “special treatment”. Able-bodied individuals reported feelings of discomfort, fear of the unknown and reduced job performance expectations with respect to persons with disabilities. In relation to team functioning, Naami (2015) ascertained in her study that persons with disabilities were excluded from the decision-making process.

6.3.4.1 Employers

a Discomfort of co-workers

Figure 6.22 below shows the measure of agreement with the statement that co-workers feel uncomfortable working alongside persons with disabilities.

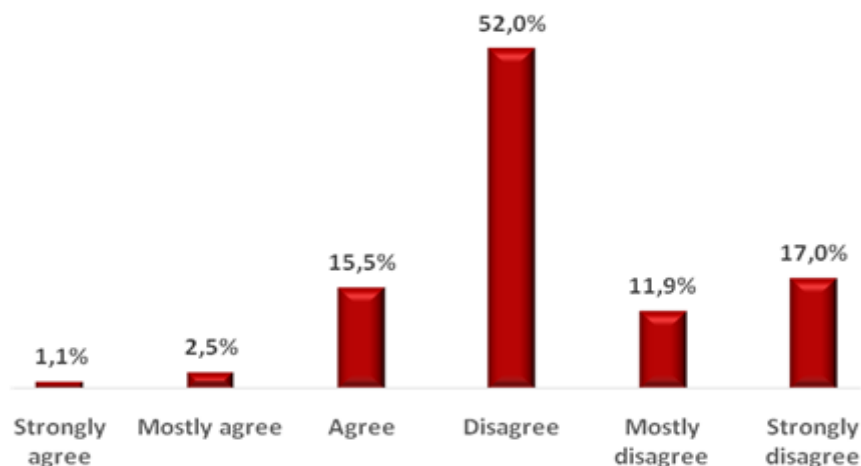


Figure 6.22 Co-workers feel uncomfortable working alongside persons with disabilities

The vast majority of respondents (81.0%) indicated disagreement with the perception that persons with disabilities caused co-workers to feel uncomfortable working alongside them.

b Reactions of co-workers where rewards are based on teamwork

Table 6.28 below illustrates the measure of agreement with the perception that persons with disabilities cause co-workers to react with resentment where teamwork performance is rewarded (e.g., shared incentives).

Table 6.28

Persons with disabilities cause co-workers to react with resentment where teamwork performance is rewarded

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	1	.3	.4	.4
Mostly agree	4	1.2	1.4	1.8
Agree	24	7.0	8.7	10.5
Disagree	165	48.2	59.8	70.3
Mostly disagree	36	10.5	13.0	83.3
Strongly disagree	46	13.5	16.7	100.0
Total	276	80.7	100.0	
Missing	66	19.3		
Total	342	100.0		

The vast majority of respondents (89.5%, n=247) indicated disagreement with the perception that persons with disabilities caused co-workers to react with resentment when rewarded in accordance with the performance of their team.

6.3.4.2 Unemployed persons with physical disabilities

These respondents were unemployed and therefore not exposed to co-workers' reactions to them.

6.3.4.3 *Employed persons with physical disabilities*

a Functioning in a team

Robert and Harlan (2006) referred to one of the fictional identities assigned to persons with disabilities as “the incompetent”, which implied incapability to perform at the same level as an able-bodied peer. The majority of the respondents (75.5%, n=117) indicated that they worked in a team, as illustrated in Table 12D in Appendix D.

b Inclusion in the team in respect of work allocation and decision-making

The question arose whether those persons with physical disabilities who worked in a team, felt included when work was allocated and when decisions were made. Figure 6.23 below displays whether the respondents feel part of the team when decisions/work allocations are made. Figure 6.23 below reflects whether the respondent feels part of the team when decisions/work allocations are made.

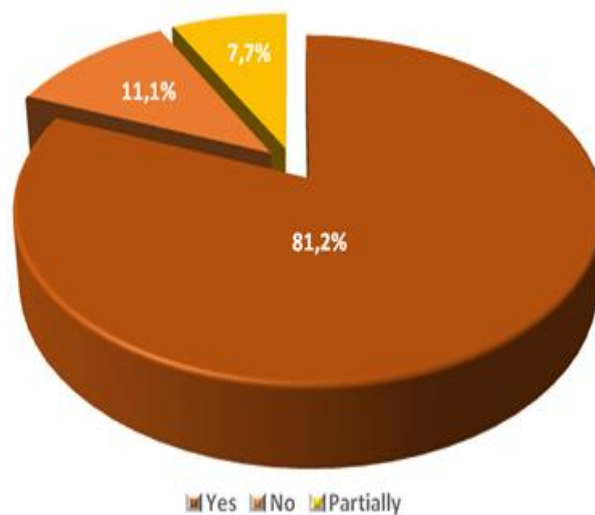


Figure 6.23 Feels part of the team when decisions/work allocations are made

A large proportion of the respondents (81.2%) who worked in a team, felt part of the team in respect of work allocation and decision-making. Those who did not feel included (11.1%) or only partially included (7.7%) indicated feelings of isolation; he/she simply carried out instructions; was not coping with the job which made his team unhappy; was criticised about his work; and maintained a slower work pace than his team members. These findings are supported by the following verbatim quotes:

“They are not prepared to tolerate my slowness” (Respondent 62);

“Their bad attitude” (Respondent 50); and

“They criticise me during building” (Respondent 91).

c Treatment by team members

Respondents were questioned about their treatment by their team members. While most of the respondents reported being treated well, those who felt ill-treated, described the following behaviours on the part of their team members: Being teased/ridiculed; his/her input was disregarded; they ignored his/her complaints and advised him/her to leave if he/she could not handle the pressure; unsympathetic about absenteeism owing to pain; his instructions as the supervisor were ignored, blamed for delays and waiting customers; under-estimation of his abilities; non-acceptance/intolerance of his condition; complains about his/her need for assistance; there was a lack of credit for his work; and they gossip.

“Doesn’t consider my complaints, shouts at me and often advises me to leave work if I can’t handle the pressure” (Respondent 3);

“Being joked at (amputated leg) and talked about by my colleagues, not being considered in meetings and anything concerning work” (Respondent 1); and

“The team does not like me. They say I cause delays and customers wait a lot” (Respondent 30).

6.3.4.4 *Interpretation of theme 4*

In interpreting patterns that emerged from the results and findings generated by the data, convergent findings (similarities) and divergent findings (differences) are derived predominantly from the responses of the majority of the participants to a particular question.

The results and findings emanating from theme 4, which depicted negative co-worker reactions, revealed both convergent and divergent findings, in relation to the theory. In this study, employers disagreed with both perceptions, namely that co-workers felt uncomfortable working alongside persons with disabilities and that they reacted with resentment when rewarded in accordance with the performance of their team, for example, shared incentives. In contrast, according to the theory, a lack of diversity (Spataro, 2005), a lack of exposure to this group (Australian Human Rights Commission, 2016) and stereotyped perceptions of their competency (Lengnick-Hall et al., 2005) culminated in negative attitudes towards persons with disabilities on the part of colleagues.

As for employed persons with physical disabilities, the majority indicated that they worked in a team, they were included in work allocation and decision-making and they were treated well. This would be regarded as an unexpected finding since, according to Robert and Harlan (2006), persons with disabilities are subjected to marginalisation, fictionalisation, harassment, discrimination, job segregation and unequal career prospects in the workplace. However, a small proportion of respondents felt incompetent, which can be related to the findings of Robert and Harlan (2006) and others, as presented in Chapter 2.

These findings can be related to research aim 1 of this study, namely to adopt a convergent mixed methods research approach in order to ascertain the causes of exclusion of persons with physical disabilities from employment in the South African formal sector. Other causes of exclusion of persons with physical disabilities from the workplace, as expounded on in Chapter 2, resort under different themes,

presented in the appropriate sections of this chapter. The implications of the results and findings are contained in section 6.4, while the associated meta-inferences (Venkatesh et al., 2013) are presented in Chapter 7.

6.3.5 Theme 5: Apprehension about managing persons with disabilities

A lack of knowledge of disability matters, including accommodation, seemed to be associated with apprehension about managing persons with disabilities. Hagner and Cooney (2003) and the Kessler Foundation (2010) found in their respective studies that supervisors and managers had limited training relating to managing individuals with disabilities. They felt unprepared to address problems or implement appropriate accommodation for employees with disabilities. Paetzold et al. (2008) posited that organisations need to learn how to manage disability, including the accommodation process, and create a culture, through training, that embraces these aspects.

6.3.5.1 Employers

a Knowledge of and familiarity with the management of disability

Table 6.29 below illustrates the measure of agreement with the statement that employers feel unfamiliar with managing the needs of persons with disabilities (including accommodation and assistive technology).

Table 6.29

Employers feel unfamiliar with how to manage the needs of persons with disabilities

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	22	6.4	7.9	7.9
Mostly agree	39	11.4	14.0	21.9
Agree	126	36.8	45.3	67.3
Disagree	70	20.5	25.2	92.4
Mostly disagree	13	3.8	4.7	97.1
Strongly disagree	8	2.3	2.9	100.0

Total	278	81.3	100.0
Missing	64	18.7	
Total	342	100.0	

A total of 278 responses to this item was obtained, of which the majority of respondents (67.3%, n=187) indicated agreement with the perception that employers felt unfamiliar with how to manage the needs of persons with disabilities. This aspect was analysed further in section 6.3.9 to determine the impact of industrial sector on this dimension.

b Performance management

As expounded on in Chapter 2, researchers such as Kaye et al. (2011) found that supervisors lacked knowledge about the needs of persons with disabilities and felt apprehensive about how to evaluate their job performance, while also being afraid to discipline or dismiss a poor worker owing to potential legal action. Figure 6.24 below shows the measure of agreement with the statement that supervisors feel apprehensive about managing the job performance of persons with disabilities.

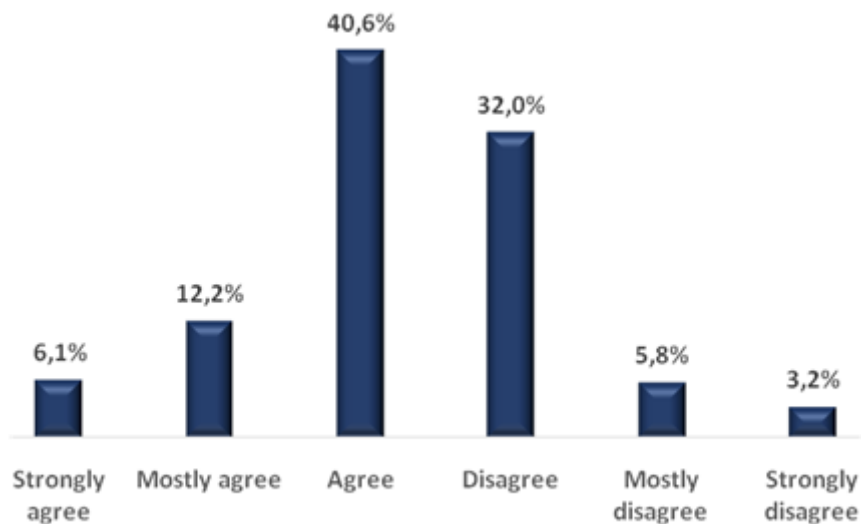


Figure 6.24 Supervisors feel apprehensive about managing the job performance of persons with disabilities

A total of 278 responses to this item was obtained, of which a small majority of respondents (59.0%) indicated agreement with the perception that supervisors feel apprehensive about how to discipline and/or evaluate the performance of persons with disabilities.

c Prior negative experience

The context of prior negative experiences with persons with disabilities could be related to any of the causes of their exclusion from the workplace, as expounded on in Chapter 2. Luecking (2008) stated that discrimination manifests when an employer is disappointed with the performance of an employee with a disability and vows to never again hire someone from that category or group again.

The vast majority of the respondents (85.2%) indicated disagreement with the statement that their organisation had had a negative experience with a person with a disability, as illustrated in Table 13D in Appendix D. Questioned about the type of disability involved where a negative experience had transpired, only 72 respondents provided information, namely 33 indicated physical disability, 15 reported neurological or sensory disability, and 24 specified psychosocial disability, as shown in Table 14D in Appendix D. However, of particular interest was the nature of negative experiences which had occurred. Table 6.30 below discloses the types of negative experiences ascribed to persons with disabilities.

Table 6.30

The types of negative experiences ascribed to persons with disabilities: Multiple response

Negative experiences	Responses		
	N	Percent	Percent of Cases
Absenteeism (several causes)	14	19.7	25.5
Behavioural problems/interpersonal conflict/assault	14	19.7	25.5
Unproductive/incompetent	13	18.3	23.6
Accessibility difficulties iro venues/building/functions	9	12.7	16.4
Ill health	5	7.0	9.1
Absconded	4	5.6	7.3

Unreasonable demands	3	4.2	5.5
Non-disclosure of condition	3	4.2	5.5
Transport to work	2	2.8	3.6
Habitual late-coming	1	1.4	1.8
Refusal to execute tasks	1	1.4	1.8
Refusal to take medication	1	1.4	1.8
Disregarded safe walkways and fell	1	1.4	1.8
Total	71	100.0	129.1

The responses, provided in text form, were coded and themes derived. The respondents described one or more different types of incidents and therefore the groups are not independent. Thus, the percentage of cases adds up to more than 100%. Absenteeism (25.5%, n=14) and behavioural problems/interpersonal conflict/assault (25.5%, n=14) were the most frequent negative experiences which had transpired with persons with disabilities, followed by unproductive/ incompetent work performance (23.6%, n=13). These findings are supported by the following verbatim quotes:

“One female was unable to perform the assigned duties and could not fit into the harsh construction environment and absconded” (Q38c, response 1).

“Constant requirement of special treatment and special conditions of employment (unplanned leave when his helper did not arrive for work to help him to prepare for work) as well as regular sick leave resulted in alienating colleagues, friction in the division and additional burdens on line manager as well as delays in projects that were dependent on the individual’s role” (Q38c, response 6).

“Excessive absenteeism, due to Bipolar disorder, loss of concentration, insomnia, hospitalisation due to severe depression and hallucinations, mood swings, confrontations with staff” (Q38c, response 14).

“Person was rather aggressive and rude towards customers. We have had several complaints regarding this individual” (Q38c, response 40).

“Poor work performance, excessive absenteeism and lack of motivation” (Q38c, response 42).

“We employed two disabled learners. Mobility was an issue for the learner on crutches as we have no lift and he worked on the first floor. Getting from the bus stop to the office was also an issue, as was catching public transport when the weather was inclement. The other learner had physical mobility issues, as well as intellectual limitations (which were not disclosed to us upfront). He battled with the study material and to complete very simple tasks” (Q38c, response 63).

6.3.5.2 Unemployed persons with physical disabilities

These respondents were unemployed and therefore not subjected to a supervisor’s apprehension about managing them.

6.3.5.3 Employed persons with physical disabilities

Treatment by the supervisor was established. Balser (2000) established that commonly perceived forms of unfair treatment occurred in respect of reasonable accommodation, decisions on promotions, supervisor and co-worker harassment, negative performance reviews, lack of training opportunities, disparate compensation and benefits, the application of disciplinary action and retaliation for filing grievances and lawsuits.

Employed persons with physical disabilities were questioned about the treatment they received from their supervisor. The majority reported being treated well. However, those respondents who felt that their supervisor did not treat them well, offered the following reasons: Implied that all the medical appointments would hamper his promotional prospects; unsympathetic/intolerant of his/her health complaints; intolerant of his slowness; threats of dismissal; complains about her job performance; advised to go on pension; and scolded for making mistakes. These findings are supported by the following verbatim quotes:

“Strict, does not realise the pain I feel” (Respondent 18);

“Always reprimands me and promises to dismiss me” (Respondent 31);

“Good, but always advises me to take pension because I complain a lot” (Respondent 76); and

“Everyone, including the supervisor, thinks I am their personal assistant and they don’t give me credit” (Respondent 69).

6.3.5.4 Interpretation of theme 5

In interpreting patterns that emerged from the results and findings generated by the data, convergent findings (similarities) and divergent findings (differences) are derived predominantly from the responses of the majority of the participants to a particular question.

The results and findings emanating from theme 5, which depicted apprehension about managing persons with disabilities, revealed both convergent and divergent findings.

In line with the theory, the majority of employers in the sample agreed that they lacked familiarity with and therefore knowledge of managing the needs of persons with disabilities, including required accommodation and assistive technology (Dixon et al., 2003; Hagner & Cooney, 2003; Paetzold et al., 2008). Furthermore, a small majority of these respondents agreed that supervisors experienced feelings of apprehension about performance management pertaining to persons with disabilities. A larger majority would have been expected in the context of the theory mentioned below.

The vast majority of employers disagreed that their organisation had encountered a negative experience with a person with a disability. However, those respondents who reported a prior negative experience, described incidents that emerged in the theory, especially absenteeism, behavioural/interpersonal problems and incompetent or unproductive work behaviour. In their respective research endeavours, Bruyère et al. (2004), Chan et al. (2010), Dixon et al. (2003), Domzal et al. (2008), Fraser et al. (2010), Green and Brooke (2001), Hernandez et al.

(2008), Kaye et al. (2011), the Kessler Foundation (2010), Louvet (2007), Ren et al. (2008) and Waterhouse et al. (2010) ascertained employers' concerns about persons with disabilities. These misgivings entailed, inter alia, unsatisfactory levels of competency and productivity; different performance and productivity standards; impact on team relations and performance outcomes; time-consuming dependence on co-workers and supervisors for support or assistance; supervisors being unsure about how to apply discipline; absenteeism; reduced staff morale; and difficulty when required to dismiss a poor performer.

In respect of employed persons with disabilities, the majority of respondents reported being treated well by their supervisor. However, those who felt ill-treated, provided reasons relating to health conditions and competence.

The core aspects of this theme, namely lack of knowledge of disability matters and apprehension on the part of supervisors, can be rectified with appropriate training, as discussed in theme 11. Incidentally, theme 5 was discarded in the SEM 3 model, owing to low squared multiple correlations. These findings can be related to research aim 1 of this study, namely to adopt a convergent mixed methods research approach in order to ascertain the causes of exclusion of persons with physical disabilities from employment in the South African formal sector. Other causes of exclusion of persons with physical disabilities from the workplace, as expounded on in Chapter 2, resort under different themes, presented in the appropriate sections of this chapter. The implications of the results and findings are contained in section 6.4, while the associated meta-inferences (Venkatesh et al., 2013) are presented in Chapter 7.

6.3.6 Theme 6: Recruitment and selection of persons with physical disabilities

In Chapter 2, the causes of exclusion of persons with physical disabilities from the workplace were described, which would have an impact on the recruitment and selection of individuals from this group. Chan et al. (2010) discerned that

organisations who were committed to diversity in their workforce were more receptive to employing persons with disabilities. However, reluctance to employ them was influenced, inter alia, by inadequate knowledge of and experience with hiring persons with disabilities. It was indicated to Kaye et al. (2011) that they did not apply for jobs.

6.3.6.1 Employers

a Active recruitment of persons with disabilities

Table 6.31 below indicates the measure of agreement about whether the organisation actively recruits persons with disabilities.

Table 6.31

The organisation actively recruits persons with disabilities

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	30	8.8	10.9	10.9
Mostly agree	31	9.1	11.3	22.2
Agree	115	33.6	41.8	64.0
Disagree	79	23.1	28.7	92.7
Mostly disagree	11	3.2	4.0	96.7
Strongly disagree	9	2.6	3.3	100.0
Total	275	80.4	100.0	
Missing	67	19.6		
Total	342	100.0		

Around two thirds (64.0%, n=176) of the respondents indicated agreement that the company actively recruited persons with disabilities. Conversely, a fair proportion (36.0%, n=99) disagreed, despite South African policies to promote the employment of persons with disabilities as presented in Chapter 4. This aspect was analysed further in section 6.3.9 to determine the impact of industrial sector on this dimension. In response to a question on whether the respondents had employed persons with disabilities in the last 12 months, around one half had and the other half had not. Asked whether persons with disabilities responded to job

advertisements in the media, half of the respondents agreed and half disagreed. The strategies adopted to recruit persons with disabilities entailed the printed media, internet, specialised employment agencies, disability organisations, Department of Labour centres, word of mouth and rehabilitation professionals.

b Employability ratings

As expounded on in Chapter 2, employability ratings awarded to job applicants were based on, inter alia, qualifications, skills, work experience, self-presentation during the interview, apparent level of motivation and type of disability, as purported by Bricout and Bentley (2000), Dalgin and Bellini (2008), Domzal et al. (2008), Duff et al. (2007), Egan (2001), Hayes and Macan (1997), Luecking (2008) and Ren et al. (2008). The importance of self-efficacy in job-seeking endeavours was emphasised by Barlow et al. (2008) as presented in Chapter 3. Figure 6.25 below indicates whether or not employability ratings are awarded.

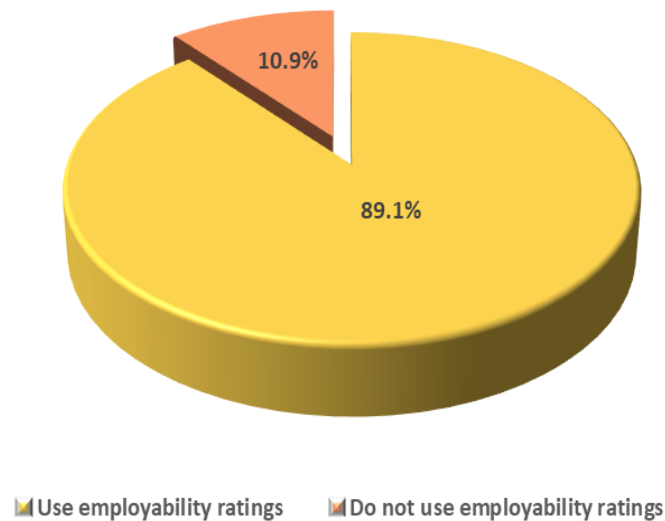


Figure 6.25 Employability ratings are awarded

The vast majority of respondents (89.1%) indicated agreement that the organisation used employability ratings in an interview with regard to the job applicant's skills, qualifications, work experience, self-presentation, etc. These ratings were applied across the board. Furthermore, as illustrated in Tables 15D and 16D in Appendix D, the majority of respondents expected the need for

accommodation and/or assistive devices and an invisible disability to be disclosed during a job interview.

c Initial basis of employment of persons with disabilities

Wilton (2006) referred to non-standard work arrangements, that included part-time work and temporary/contract jobs, which typically offered lower wages, fewer if any benefits and little job security, as an option for those persons with disabilities who are unable to work on a full-time basis. Schur (2003) indicated that health problems could compel persons with disabilities to accept contingent or part-time work. Figure 6.26 below shows the initial basis of employment of persons with disabilities.

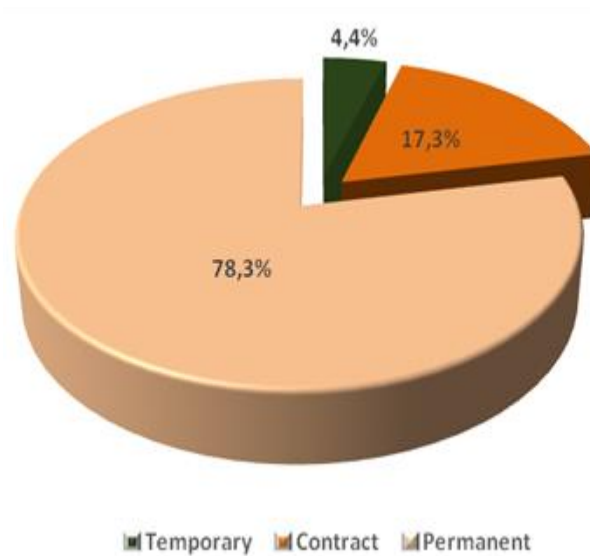


Figure 6.26 Initial basis of employment of persons with disabilities

More than three quarters of the respondents (78.3%) reported that their organisation appointed persons with disabilities on a permanent basis from the outset, while 17.3% opted for contract-based employment and 4.4% preferred temporary employment.

d The types of jobs that become vacant most frequently in the organisation

Owing to the wide spectrum and diversity of jobs reported, a multiple response table is presented in Table 17D in Appendix D. A total of 391 responses was recorded. Since the respondents could indicate any number of different job types, the groups are not independent and therefore the percentage of cases added up to more than 100%. As illustrated in Table 17D in Appendix D, administrative positions (22.5%, n=70) are the most frequently vacant followed by the low level/general worker/forklift operator/driver category (15.1%, n=47).

6.3.6.2 Unemployed persons with physical disabilities

a Active pursuit of employment

Schur (2002) suggested that persons with disabilities regard employment as a means to participate in mainstream society, reduce social isolation, feel useful and needed, experience higher levels of life satisfaction, escape poverty and counter depression and anxiety. Graham et al. (2014) determined that almost half of persons with disabilities in their study were unemployed with no desire to work, be it owing to them having severe disabilities or they had discontinued searching for employment for health-related reasons or they had become despondent. Figure 6.27 below illustrates whether or not work is being actively sought.

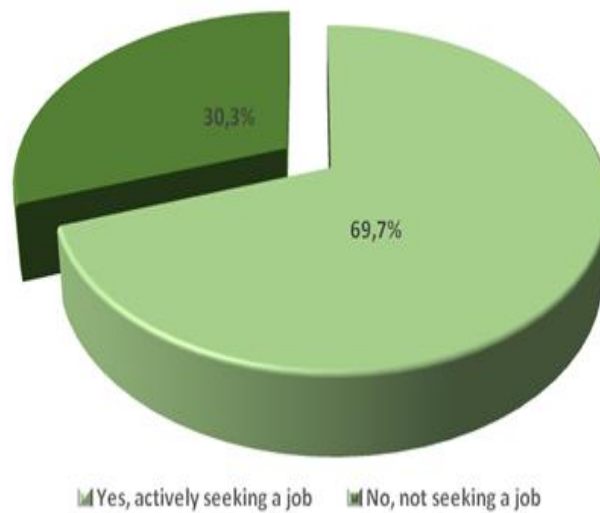


Figure 6.27 Actively seeking work

More than two thirds of the respondents (69.7%) indicated that they were actively seeking a job. This theme can also be related to the responses indicated in section 6.3.1.2 pertaining to the desire to work.

b Strategies implemented to secure employment

Table 6.32 below displays the methods used to pursue employment.

Table 6.32

Methods used to pursue employment

Methods	Frequency	Percent	Percent of Cases
Direct application	74	33.5	47.1
Nil - not looking	53	24.0	33.8
Friends	48	21.7	30.6
Family	43	19.5	27.4
Newspaper	2	0.9	1.3
Employment	1	0.5	0.6
Total	221	100.0	140.8

This was a multiple response question. The respondents were presented with the options of family/friends/newspaper/labour broker/employment agency/government labour centre/direct application/other. On average, each respondent indicated 1.41 different methods. The most prevalent method was direct application (47.1%, n=74). None of the respondents mentioned government labour centres or labour brokers as a means of seeking work. Questioned about the type of job sought, a large variety of job titles emerged as shown in Table 18D in Appendix D. Around one quarter of the respondents (24.0%) indicated that the question did not apply to them, since they considered themselves unable to work.

6.3.6.3 *Employed persons with physical disabilities*

The strategies implemented to secure employment were gleaned from the respondents. Table 6.33 below depicts the method used to secure the respondent's current job.

Table 6.33

Method used to secure the current job

Methods	Frequency	Percent	Valid Percent	Cumulative Percent
Direct application	124	80.0	80.0	80.0
N/A, self-employed	15	9.7	9.7	89.7
Friends	11	7.1	7.1	96.8
Family	4	2.6	2.6	99.4
Newspaper	1	.6	.6	100.0
Total	155	100.0	100.0	

A large proportion of the respondents (80.0%, n=124) secured their jobs through direct application. Interestingly, none of the respondents indicated government labour centres, labour brokers or employment agencies.

6.3.6.4 *Interpretation of theme 6*

Recruitment and selection practices are also influenced by policies and procedures as discussed in section 6.3.11.

In interpreting patterns that emerged from the results and findings generated by the data, convergent findings (similarities) and divergent findings (differences) are derived predominantly from the responses of the majority of the participants to a particular question.

The results and findings emanating from theme 6, which depicted the recruitment and selection of persons with physical disabilities, revealed both convergent and divergent findings. While around two thirds of the respondents reportedly recruit persons with disabilities, one third does not, which might explain, at least in part, why the employment equity target for persons with disabilities has not yet been met (RSA, 2019). Around one half of the respondents indicated that persons with disabilities responded to job advertisement in the media. Also, as reflected in Table 6.15 contained in theme 1, several respondents expressed the opinion that skilled, experienced persons with disabilities cannot be located.

Divergence seems clear in that employers and job seekers pursue totally different avenues and are therefore relatively far removed from each other in the labour market. Employers use mainly the printed media, internet, specialised employment agencies and disability organisations, while job seekers with disabilities rely on direct applications, friends and family. The latter was also found by the HSRC (2006). Around one quarter of the unemployed persons with physical disabilities indicated that they were not seeking employment owing to their disability, which is comparable with the findings of Graham et al. (2014).

It became clear that employability ratings are widely used to evaluate an applicant's skills, qualifications, work experience, self-presentation during the interview and so forth. In this regard, it is important for an applicant to possess job seeking skills as

described by Barlow et al. (2008). By the same token, the majority of employers in the sample expected accommodation needs and invisible disabilities to be disclosed during a job interview. An unexpected finding was that the majority of employers in the sample reported that their organisation appointed persons with disabilities on a permanent basis from the outset as opposed to initial contract-based or temporary employment.

These findings can be related to research aim 1 of this study, namely to adopt a convergent mixed methods research approach in order to ascertain the causes of exclusion of persons with physical disabilities from employment in the South African formal sector. Other causes of exclusion of persons with physical disabilities from the workplace, as expounded on in Chapter 2, resort under different themes, presented in the appropriate sections of this chapter. The implications of the results and findings are contained in section 6.4, while the associated meta-inferences (Venkatesh et al., 2013) are presented in Chapter 7.

6.3.7 Theme 7: Current employment status of persons with disabilities

Persons with disabilities count among the most marginalised on earth with higher rates of poverty, poorer health results, lower education levels and low economic participation (WHO, 2011). According to the SAHRC (2002), South Africa has a progressive, rights-based constitution yet its citizens with disabilities continue to face barriers that prevent them from fully participating in society. Furthermore, the causes of exclusion of persons with physical disabilities from employment were communicated in Chapter 2.

6.3.7.1 Employers

a Current employment of persons with disabilities

Table 6.34 below reflects the number of organisations who employed persons with disabilities.

Table 6.34

Number of organisations who employed persons with disabilities

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	267	78.1	84.8	84.8
No	48	14.0	15.2	100.0
Total	315	92.1	100.0	
Missing	27	7.9		
Total	342	100.0		

A total of 315 of the 342 respondents provided information about whether or not they currently employed persons with disabilities, of whom the majority (84.8%, n=267) responded in the affirmative.

b Types of disabilities of employed persons with disabilities

Based on the responses of employers, the types of disabilities of employed persons with disabilities included physical/mobility restrictions, neurological conditions, sensory impairments, myological damage, disfigurement and psychosocial disabilities, as reflected in Tables 19D, 20D, 21D, 22D, 23D and 24D in Appendix D.

i Physical disabilities

A total of 167 respondents provided information in respect of the types of physical restrictions among their employees with disabilities. Since the respondents could select any number of the listed disabilities, the groups were not independent and therefore the percentage of cases added up to more than 100%. Mobilisation with a limp (46.1%) was the most frequent type of physical disability reported, followed by paraplegia (43.7%). The least frequent type of physical disability entailed mobilisation with a walking frame (6.6%).

ii Neurological disabilities

A total of 95 respondents provided information in respect of the types of neurological disabilities, including nerve damage, among their employees with disabilities. Since the respondents could select any number of the listed disabilities, the groups were not independent and therefore the percentage of cases added up to more than 100%. Epilepsy (65.3%) was the most frequent type of neurological disability reported. The least frequent type of neurological disability entailed tremors of the arms or hands (12.6%, n=12).

iii Sensory disabilities

A total of 169 respondents provided information in respect of the type of sensory disability among their employees with disabilities. Since the respondents could select any number of the listed disabilities, the groups were not independent, and therefore the percentage of cases added up to more than 100%. Partial deafness (51.5%) was the most frequent type of sensory disability among the employees with such disabilities reported, followed by partial blindness (49.1%). The least frequent type of sensory disability entailed total blindness (7.1%).

iv Myological damage

A total of 23 respondents reported obvious loss of muscle tissue as a condition among their employees with disabilities.

v Disfigurement

A total of 38 respondents reported severe scarring of the face, hands, arms and/or legs as a condition among their employees with disabilities.

vi Psychosocial disabilities

A total of 81 respondents reported psychological, psychiatric, mental or intellectual disorders as a condition among their employees with disabilities.

c Categories of positions held by employees with disabilities

The categories of positions held by employed persons with disabilities entailed administration/HR/accounting/buying, etc; sales/ marketing/customer service; production; supply chain (warehousing/logistics/ fleet/distribution); technical and maintenance; research and development; and information technology. In the case of warehousing, there were more employees with disabilities in junior managerial/supervisory positions than in specialist/professional roles, but with the majority in low-level positions. In all the other categories, the majority of employees with disabilities held low level or specialist/professional positions. Tables 25D, 26D, 27D, 28D, 29D, 30D and 31D contained in Appendix D illustrate the number of employees with disabilities per category of position.

6.3.7.2 Unemployed persons with physical disabilities

a Life changes following the injuries and accompanying disability

Figure 6.28 below depicts life changes owing to injuries and disability.

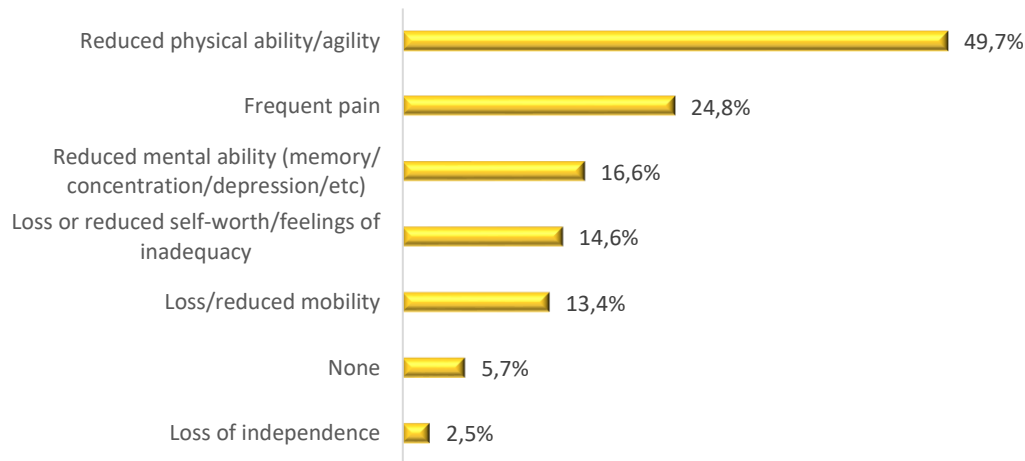


Figure 6.28 Life changes owing to injuries and disability

Almost half of the respondents (49.7%) indicated their reduced level of physical ability/agility as their most significant life change following their injuries, while almost one quarter (24.8%) reported frequent pain. These findings are supported by the following verbatim quotes:

“My right leg is still paining and severely so in cold weather” (Respondent 21); “My leg and hand are paining everyday” (Respondent 69);

“Had to take early pension” (Respondent 57); and

“I lost my arm” (Respondent 14).

b Preference for self-employment

A total of 104 respondents indicated that they would prefer to be self-employed and offered such options as tuck shop/spaza shop operator, vendor, accommodation landlord, taxi owner, caterer, painter, vehicle repairman, farmer, hairdresser, carpenter, builder, gardener, seamstress or owning a business such as an internet café, laundrette, car wash, courier service, guest house/bed and breakfast, transporter and take-out restaurant.

6.3.7.3 Employed persons with physical disabilities

a Life changes following the injuries and accompanying disability

Figure 6.29 below discloses life changes owing to injuries and disability.

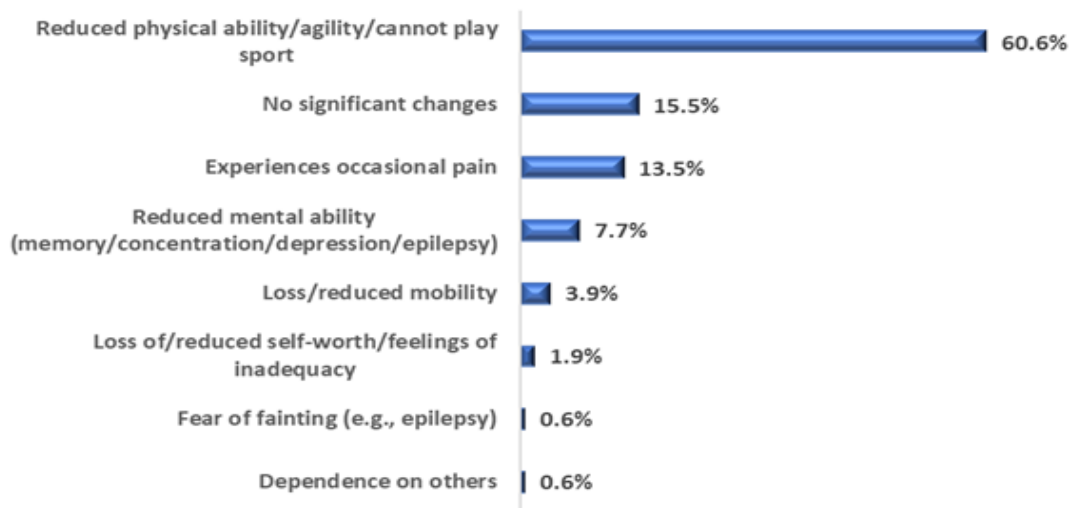


Figure 6.29 Life changes owing to injuries and disability

Reduced physical ability/agility emerged as the most prominent life change (60.6%), while many respondents mourned the loss of their ability to play sport.

The findings are supported by the following verbatim quotes:

“Can’t wash my own washing” (Respondent 15);

“I use a walking frame which I’m very unhappy about” (Respondent 41); and

“I can’t play soccer” (Respondent 26).

Nevertheless, a large proportion of the respondents (90.2%) indicated that they liked their job, as illustrated in Table 32D in Appendix D.

b Basis of current employment

Figure 6.30 below demonstrates the respondent’s current employment status.

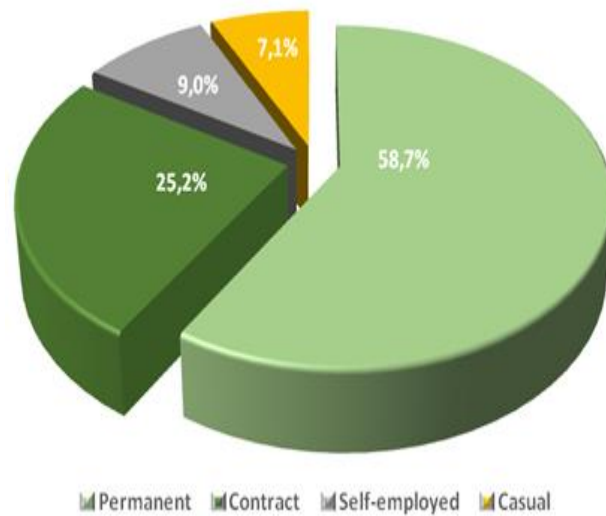


Figure 6.30 Employment status

More than half of the respondents were employed on a permanent basis (58.7%), in a wide variety of jobs, one quarter held contract employment (25.2%), a small proportion was self-employed (9.0%) and the rest were hired as casual workers (7.1%).

c Means of transportation taken to work

In the South African Baseline Country Report (2013), in response to Article 9 (Accessibility) of the CRPD (2006), it was acknowledged that public transportation in South Africa poses considerable challenges, which have a significant impact on affordable mobility for persons with disabilities, particularly in poor communities. In the case of the sample of employed persons with physical disabilities, the majority travelled by motor car while others used taxis, buses, work transport, trains or a lift club, as illustrated in Table 33D in Appendix D.

d The presence of other persons with disabilities in the organisation

A large proportion of the respondents denied that there were other persons with disabilities employed. Of those respondents who answered in the affirmative, some

were unsure about the types of disabilities but, to their knowledge, these encompassed an amputated hand, an amputated arm, an amputated leg, limping, paraplegia and a hearing impairment.

6.3.7.4 Interpretation of theme 7

In interpreting patterns that emerged from the results and findings generated by the data, convergent findings (similarities) and divergent findings (differences) are derived predominantly from the responses of the majority of the participants to a particular question.

The results and findings emanating from theme 7, which depicted the current employment status of persons with disabilities, revealed mainly convergent findings apart from a few unexpected ones. The majority of respondents indicated that they employed persons with disabilities. However, it is acknowledged that response bias could have prevailed but, nevertheless, the size of the employer sample was ample, being in excess of 300 (Hair et al., 2006). The most prevalent disability among the employees with physical disabilities entailed limping, followed by paraplegia. The latter was deemed an unexpected finding, since in the findings reflected in theme 1 pertaining to the types of physical disabilities that the organisation would be willing to employ (Table 1D in Appendix D), a limp was the most frequently selected disability followed by an amputated leg. The least frequent physical disabilities selected entailed those of paraplegia and back and neck conditions. However, in general, the extant literature did not disclose disability specifically by type or severity. Another likely unexpected finding was that epilepsy was the most prevalent neurological condition among employees with disabilities. The most prevalent sensory disabilities among employees with disabilities encompassed partial deafness and partial blindness. Less than one quarter of the sample of employers reported having employees with psychosocial disabilities. Researchers such as Brennan et al. (2003), Brostrand (2006), Dalgin and Bellini (2008), Gouvier et al. (2003) and Ren et al. (2008) found that employers' expectations in respect of employability, ease of accommodation and performance

expectations, were more favourable towards persons with physical disabilities as opposed to those with mental, psychological, psychiatric, behavioural or cognitive disabilities.

Employees with disabilities were employed in all the categories of jobs, namely administration; sales/marketing; production; supply chain/warehousing; technical and maintenance; research and development; and information technology. In the case of warehousing, there were more employees with disabilities in junior managerial/supervisory positions than in specialist/professional roles, but with the majority in low-level positions. In all the other job categories, the majority of employees with disabilities held low level or specialist/professional positions. This was an expected finding in the context of the theory. Hernandez et al. (2008) found that in healthcare, hospitality and retail, persons with disabilities mostly held entry-level and semi-skilled roles, such as clerical work, food service and laundry service. Few held professional jobs. In South Africa, Gida and Ortlepp (2007) found that, although the majority of the organisations in their study indicated that persons with disabilities occupied positions across the different levels in the organisation, most of them held lower-level jobs, especially administrative positions. There was a tendency to identify certain types of positions exclusively for persons with disabilities, for example, that of call centre agent.

Both unemployed and employed persons with physical disabilities indicated their most profound life change to be their reduced physical ability and agility. A large proportion of the unemployed group yearned for self-employment, perhaps since they were unable to secure a job. The majority of employed persons with physical disabilities revealed that they enjoyed their job, despite their disability. More than half of them were employed on a permanent rather than contract or temporary basis. The latter finding cannot be generalised to the larger population of persons with disabilities when cognisance is taken of the current CEE statistics (RSA, 2019) as reflected in Chapter 1.

Transportation to work emerged as an obstacle to persons with physical disabilities (South African Baseline Country Report, 2013). However, contrary to the theory, in the case of the sample of employed persons with physical disabilities, the majority travelled to work by motor car, taxi and bus.

These findings can be related to research aim 1 of this study, namely to adopt a convergent mixed methods research approach in order to ascertain the causes of exclusion of persons with physical disabilities from employment in the South African formal sector. Other causes of exclusion of persons with physical disabilities from the workplace, as expounded on in Chapter 2, resort under different themes, presented in the appropriate sections of this chapter. The implications of the results and findings are contained in section 6.4, while the associated meta-inferences (Venkatesh et al., 2013) are presented in Chapter 7.

6.3.8 Theme 8: Labour relations

As reported by Balcazar (2000), Domzal et al. (2008), Fraser et al. (2010), Hernandez et al. (2008), McMahon et al. (2008) and Waterhouse et al. (2010), the main sources of legal sanctions confronting employers were identified as discrimination against persons with disabilities in respect of their hiring, job retention and career advancement. In South Africa, aggrieved persons with disabilities have recourse to the Commission for Conciliation, Mediation and Arbitration (CCMA), Equality Courts and the Labour Court, as described in Chapter 4.

6.3.8.1 Employers

a Alleged unfair treatment

Table 6.35 below indicates whether the organisation has been charged before the CCMA for alleged unfair treatment of a person with a disability.

Table 6.35

The organisation has been charged before the CCMA for alleged unfair treatment of a person with a disability

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	8	2.3	2.4	2.4
No	330	96.5	97.6	100.0
Total	338	98.8	100.0	
Missing	4	1.2		
Total	342	100.0		

Almost all of the respondents (97.6%, n=330) indicated that their organisation had not been taken to the CCMA for alleged unfair treatment of a person with a disability.

b Trade union agreements

More than three quarters (76.9%) of the respondents indicated that their organisation's trade union agreements did not contain a clause dealing specifically with persons with disabilities, as illustrated in Table 34D in Appendix D.

6.3.8.2 Interpretation of theme 8

In interpreting patterns that emerged from the results and findings generated by the data, convergent findings (similarities) and divergent findings (differences) are derived predominantly from the responses of the majority of the participants to a particular question.

Theme 8, labour relations, ascertained the prevalence of allegations made by persons with disabilities pertaining to unfair treatment, as well as the presence of a clause on disability in trade union agreements. However, given the increasing emphasis on the promotion of the rights of persons with disabilities, including the right to work (CRPD, 2006), the latter finding is expected to change.

6.3.9 Theme 9: Industrial sector comparisons

Industrial sectors were compared in respect of specific items contained in the customised survey questionnaire, in order to establish whether industrial sector, which indicates the nature of a business, had an impact on the receptivity of an employer to hire persons with disabilities. Lengnick-Hall et al. (2005) established that persons with disabilities are more likely to secure employment in fast-growing sectors than in those with slower growth. They cited Yellin and Trupin (2000), who found that fast-growing sectors such as professional services and the wholesale/retail trade improved the chances of persons with disabilities retaining their jobs as opposed to low-growth sectors such as agriculture, mining, construction and manufacturing. Domzal et al. (2008) discerned that service industries were more likely to actively recruit than those in the manufacturing sector. As presented in Chapter 1, the relevant hypotheses and research aim encompass the following:

Hypotheses

Ha1: There are statistically significant differences between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment.

Ho1: There are statistically non-significant differences between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment.

Research aim 2

To determine the statistically significant differences that exist between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.

Based on the literature review presented in Chapter 2, the researcher initially identified 17 questions contained in the customised survey questionnaire where statistically significant differences between sectors could have been expected. However, those questions where the largest proportion of respondents either agreed or disagreed with any given statement presented on the Likert-type scales were discarded in this exercise. Hence, the responses that were associated with question numbers 29, 32a, 35, 36, 46, 53 and 60 were interpretable and therefore subjected to the chi-square test and cross-tabulated. Naturally, responses to these questions were also analysed from another perspective as reflected in the preceding themes.

Owing to the non-normal distribution of the data, a non-parametric technique was implemented, namely the chi-square test of independence with cross-tabulation. The chi-square test was described in Chapter 5. Suffice to add that, in reporting a chi-square, the degrees of freedom and sample size are placed in parentheses – for example, $\chi^2 (4, N=86) = 9.67, p < .05$. The chi-square assumes that no significant differences exist, thus accepting the null hypothesis (Cone & Foster, 1993). In the analysis of the possible differences between industrial sectors, the data had to be reduced to “agree/disagree” only, as per the Likert-type scales, owing to an overabundance of empty cells for chi-square cross-tabulation. SPSS Statistics Version 24 computer software uses subscripts in the output to indicate significant pair-wise differences. When the subscripts in two different columns differ, say, a in one column and b in the other column, it means that the difference between the column proportions is significantly different from zero. The selected questions were converted to subthemes as conveyed in the sections that follow.

6.3.9.1 The organisation provides training in disability matters

To determine if sector had a significant effect on whether the company provided training in disability matters, cross-tabulations with chi-square tests were conducted. Column proportions were compared to serve as post-hoc tests, using Bonferroni adjustment for p-values. The statistics of the case processing summary

are contained in Table 36D in Appendix D and the relevant sector cross-tabulation is indicated in Table 37D in Appendix D. Table 6.36 below depicts the chi-square tests and Figure 6.31 below displays whether the organisation provides training in disability matters.

Table 6.36

Chi-square tests

	Value	df	Asymptotic significance (2-sided)
Pearson chi-square	19.806 ^a	10	.031
Likelihood ratio	20.697	10	.023
Linear-by-linear association	3.901	1	.048
N of valid cases	334		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.58.

At the 5% level of significance, sector had a significant effect on whether the organisation provided training in disability matters, $\chi^2(10) = 19.806$, $p < .05$. Specifically, those respondents in the construction/property development/property management sector (36.1%, $n=13$) and those in the information technology/communication sector (39.5%, $n=15$) seemed considerably less inclined to provide training in disability matters than those in especially the supply chain/transport sector (81.5%, $n=22$).

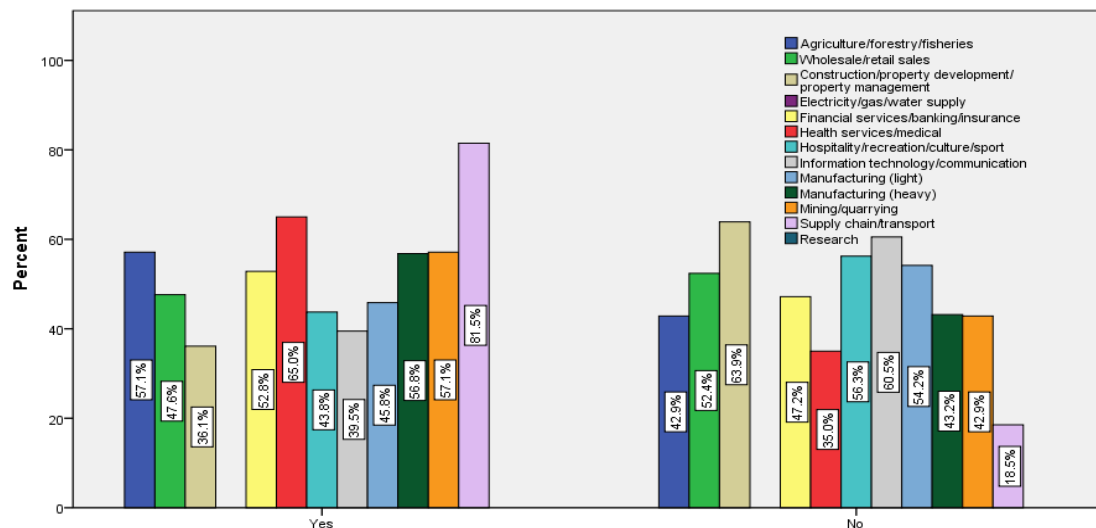


Figure 6.31 The organisation provides training in disability matters

6.3.9.2 *The organisation would be willing to make job-related modifications to accommodate physical disability*

As described in Chapter 2, job-related modifications to accommodate physical disability could include, inter alia, restructuring/redesigning an existing job. To determine if sector had a significant effect on whether the organisation would be willing to restructure or redesign an existing job, cross-tabulations with chi-square tests were implemented. Column proportions were compared to serve as post-hoc tests and, because of lower statistical power, Bonferroni adjustment for p-values was not used. The statistics of the case processing summary are provided in Table 38D in Appendix D and the relevant sector cross-tabulation is contained in Table 39D in Appendix D. Table 6.37 below illustrates the chi-square tests and Figure 6.32 below displays whether the organisation would be willing to make job-related modifications.

Table 6.37

Chi-square tests

	Value	df	Asymptotic significance (2-sided)
Pearson chi-square	16.937 ^a	10	.076
Likelihood ratio	18.167	10	.052
Linear-by-linear association	.550	1	.458
N of valid cases	329		

a. 4 cells (18.2%) have expected count less than 5. The minimum expected count is 3.32.

Had the sample size been larger, a significant result at the 5% level of significance could have been expected. At the 10% level of significance, sector had a significant effect on whether the organisation would be willing to restructure or redesign an existing job to accommodate a person with a physical disability, $\chi^2(10) = 16.937$, $p < .10$. Specifically, those respondents in the financial services/banking/insurance sector (66.0%, $n=35$), as well as those in the manufacturing (heavy) sector (65.9%, $n=29$), seemed less inclined to restructure or redesign an existing job than those

in the agriculture/forestry/fisheries sector (92.9%, n=13), the wholesale/retail sales sector (90.0%, n=18) and the supply chain/transport sector (88.9%, n=24).

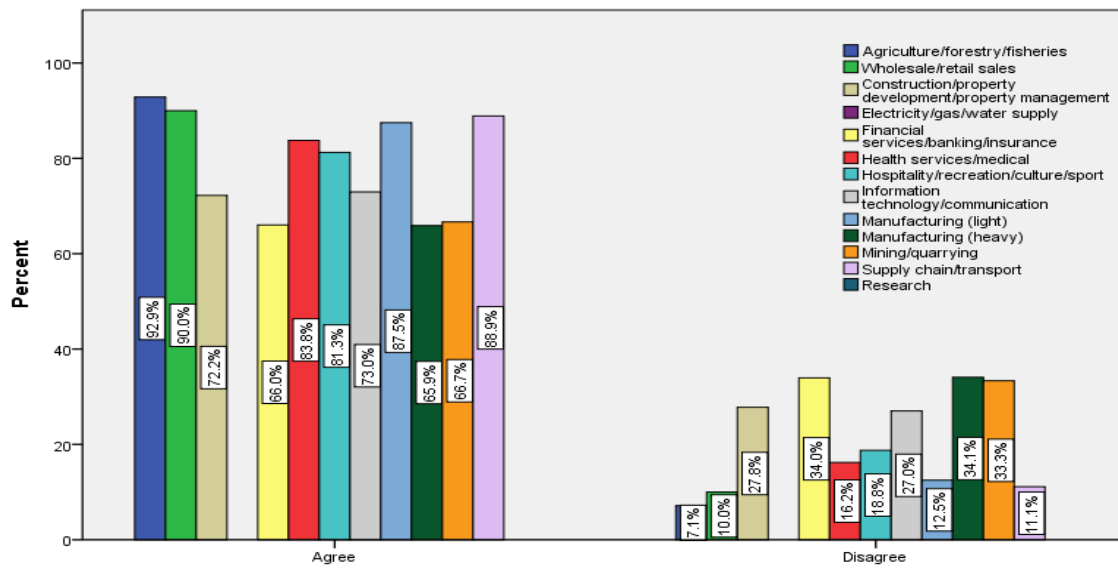


Figure 6.32 Willingness to restructure or redesign an existing job

6.3.9.3 The perceived cost of accommodation/assistive technology would prevent the organisation from employing a person with a disability

To determine if sector had a significant effect on whether the perceived cost of accommodation and/or assistive technology/devices would prevent the organisation from employing a person with a disability, cross-tabulations with chi-square tests were used. Column proportions were compared to serve as post-hoc tests and, because of lower statistical power, Bonferroni adjustment for p-values was not used. The statistics of the case processing summary are contained in Table 40D in Appendix D and the sector cross-tabulation is provided in Table 41D in Appendix D. Table 6.38 below demonstrates the chi-square tests and Figure 6.33 below depicts whether the perceived cost of accommodation/assistive technology would prevent the organisation from employing a person with a disability.

Table 6.38

Chi-square tests

	Value	df	Asymptotic significance (2-sided)
Pearson chi-square	18.971 ^a	10	.041
Likelihood ratio	20.093	10	.028
Linear-by-linear association	.000	1	.987
N of valid cases	327		

a. 1 cells (4.5%) have expected count less than 5. The minimum expected count is 4.29.

At the 5% level of significance, sector had a significant effect on whether the perceived cost of accommodation and/or assistive technology/devices would prevent the organisation from employing a person with a disability, $\chi^2(10) = 18.971$, $p < .05$. Those respondents in the supply chain/transport sector (11.1%, $n=3$) seemed to have the least objection to the perceived cost of accommodation and/or assistive technology/devices, although there were only three respondents in this sector. The respondents in the manufacturing (light) sector (50.0%, $n=12$) followed by the manufacturing (heavy) sector (46.5%, $n=20$) and the health services/medical sector (43.2%, $n=16$) tended to agree that the perceived cost of accommodation and/or assistive technology/devices would prevent the organisation from employing a person with a disability. However, it is worth noting that in none of the sectors more than 50% of the respondents agreed that this was the case in their organisation.

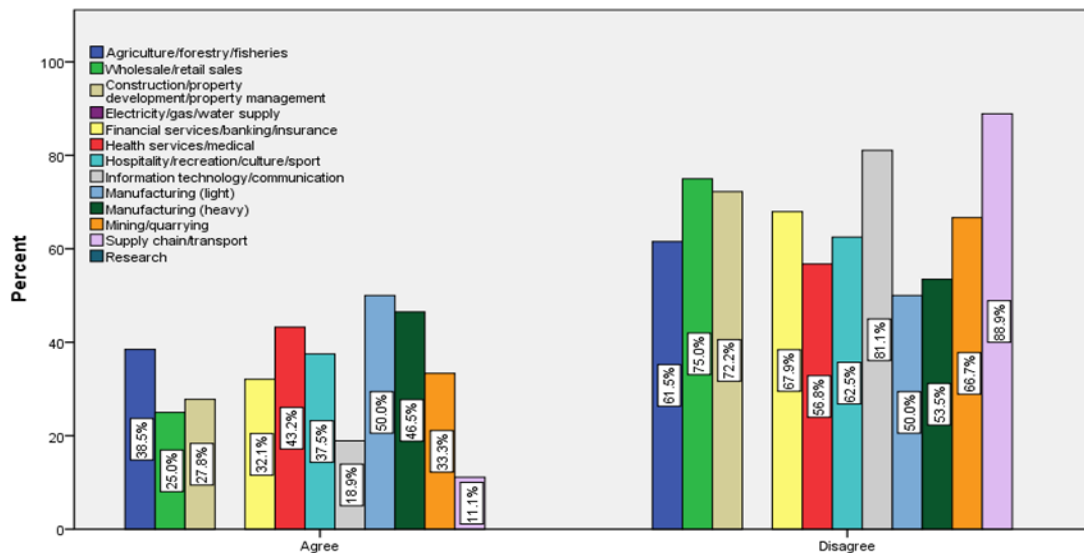


Figure 6.33 The perceived cost of accommodation and/or assistive technology would prevent the organisation from employing a person with disability

6.3.9.4 The organisation has safety concerns about employing a person with a physical disability

Safety concerns could include physical hazards and the risk of accidents, as presented earlier in Chapter 6. To determine if sector had a significant effect on whether the organisation had safety concerns about employing a person with a physical disability, cross-tabulations with chi-square tests were implemented. Column proportions were compared to serve as post-hoc tests, using Bonferroni adjustment for p-values. The statistics of the case processing summary are provided in Table 42D in Appendix D and the sector cross-tabulation is contained in Table 43D in Appendix D. Table 6.39 below displays the chi-square tests and Figure 6.34 below discloses whether the organisation has safety concerns about employing a person with a physical disability.

Table 6.39

Chi-square tests

	Value	df	Asymptotic significance (2-sided)
Pearson chi-square	54.492 ^a	10	.000
Likelihood ratio	56.112	10	.000
Linear-by-linear association	2.619	1	.106
N of valid cases	324		

a. 1 cells (4.5%) have expected count less than 5. The minimum expected count is 4.98.

At the 5% level of significance, sector had a highly significant effect on whether the organisation had safety concerns about employing a person with a physical disability, $\chi^2(10) = 54.492$, $p < .001$. Those respondents in the financial services/banking/insurance sector (25.0%, n=13) tended to have the least safety concerns, which differed significantly from those in all the other sectors, except for the information technology/communication sector (44.4%, n=16). The proportions in the other sectors ranged from 56.3% (hospitality/recreation/culture/sport sector) to 90.5% (mining/quarrying sector).

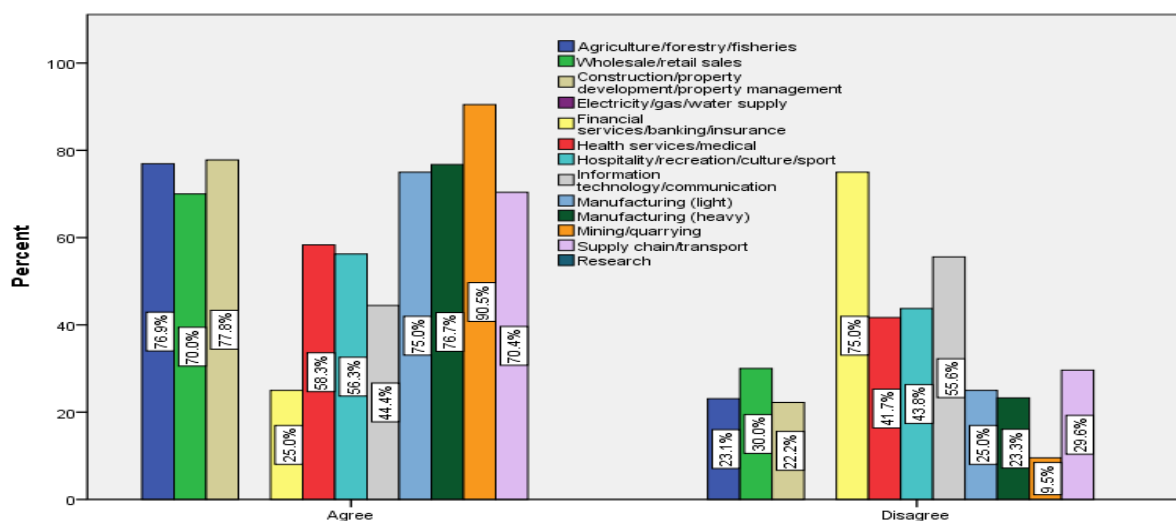


Figure 6.34 The organisation has safety concerns about employing a person with a physical disability

6.3.9.5 *The organisation's work processes and technology could be mastered by a person with a physical disability*

As expounded on in Chapter 2, nature of work, as determined by the organisation's work processes and technology, could influence an employer's receptivity to hiring a person with a physical disability. To determine if sector had a significant effect on whether the organisation's work processes could be mastered by a person with a physical disability, cross-tabulations with chi-square tests were used. Column proportions were compared to serve as post-hoc tests, using Bonferroni adjustment for p-values. The statistics of the case processing summary are provided in Table 44D in Appendix D and the sector cross-tabulation is indicated in Table 45D in Appendix D. Table 6.40 below demonstrates the chi-square tests and Figure 6.35 below depicts whether the organisation's work processes and technology could be mastered by a person with a physical disability

Table 6.40

Chi-square tests

	Value	df	Asymptotic Significance (2-sided)
Pearson chi-square	45.547 ^a	10	.000
Likelihood ratio	49.493	10	.000
Linear-by-linear association	.015	1	.902
N of valid cases	284		

a. 2 cells (9.1%) have expected count less than 5. The minimum expected count is 3.72.

At the 5% level of significance, sector had a highly significant effect on whether the respondents believed their organisation's work processes could be mastered by a person with a physical disability, $\chi^2(10) = 45.547$, $p < .001$. Those respondents in the financial services/banking/insurance sector (93.3%, $n=42$) tended to believe that their organisation's work processes could be mastered by a person with a physical disability, which differed significantly from the perceptions of respondents in most of the other sectors. Other sectors that did not differ significantly included the hospitality/recreation/culture/sport sector (91.7%, $n=11$), the information

technology/communication sector (88.2%, n=30) and the supply chain/transport sector (82.6%, n=19), all of whom seemed to lend themselves to work processes that could be mastered by a person with a physical disability. The respondents in the manufacturing (heavy) sector (40.5%, n=15) were the least convinced that their organisation's work processes could be mastered by a person with a physical disability.

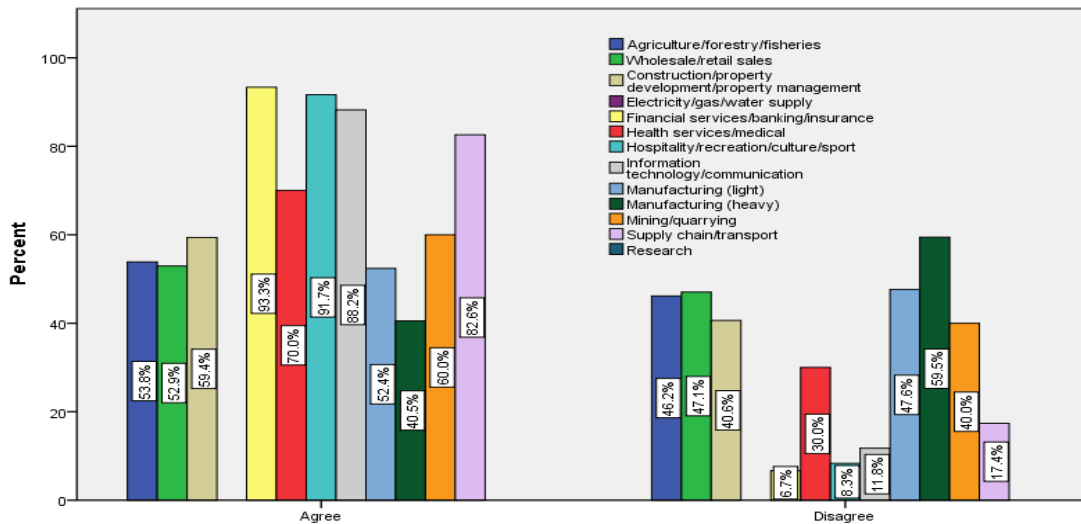


Figure 6.35 The organisation's work processes could be mastered by a person with a physical disability

6.3.9.6 Employers feel unfamiliar with how to manage the needs of persons with disabilities

Unfamiliarity with managing the needs of persons with disabilities would include a lack of knowledge of disability matters and of accommodation and assistive technology. To determine if sector had a significant effect on whether employers felt unfamiliar with how to manage the needs of persons with disabilities, cross-tabulations with chi-square tests were used. Column proportions were compared to serve as post-hoc tests and, because of lower statistical power, Bonferroni adjustment for p-values was not used. The statistics of the case processing summary are contained in Table 46D in Appendix D and the sector cross-tabulation is provided in Table 47D in Appendix D. Table 6.41 below illustrates the chi-square

tests and Figure 6.36 below shows whether employers feel unfamiliar with how to manage the needs of persons with disabilities.

Table 6.41

Chi-square tests

	Value	df	Asymptotic significance (2-sided)
Pearson chi-square	22.341 ^a	10	.013
Likelihood ratio	26.375	10	.003
Linear-by-linear association	.161	1	.688
N of valid cases	275		

a. 2 cells (9.1%) have expected count less than 5. The minimum expected count is 3.93.

At the 5% level of significance, sector had a significant effect on whether the respondents believed that employers felt unfamiliar with how to manage the needs of persons with disabilities, $\chi^2(10) = 22.341$, $p < .05$. The only sector in which less than 50% of respondents indicated that they believed that employers felt unfamiliar with how to manage the needs of persons with disabilities was that of agriculture/forestry/fisheries (46.2%, $n=6$). The proportions of respondents in all the other sectors believed that employers felt unfamiliar with how to manage the needs of persons with disabilities ranging from 51.5% to 100%, a profound indication that there is a need for training and exposure in this regard.

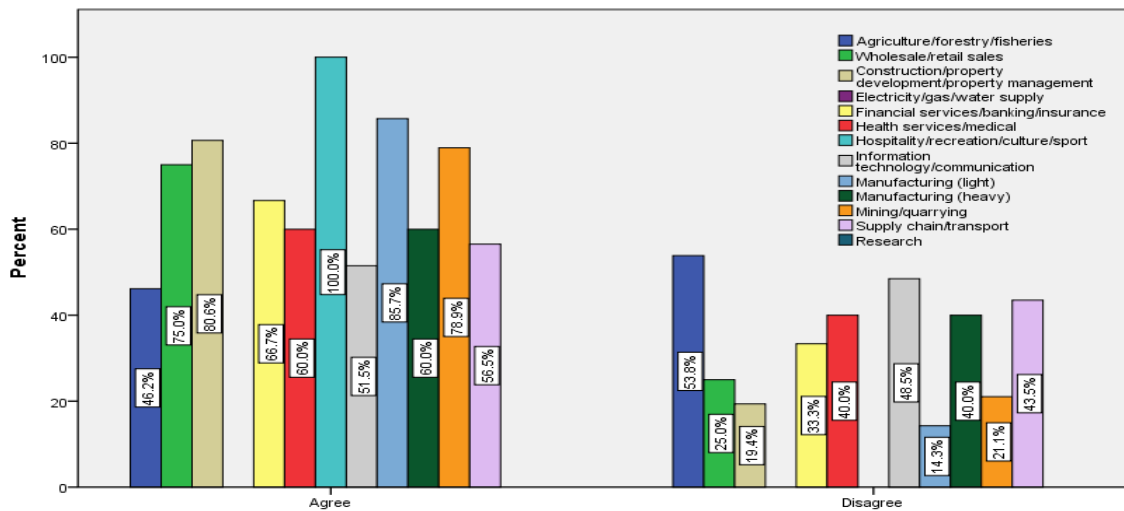


Figure 6.36 Employers feel unfamiliar with how to manage the needs of persons with disabilities

6.3.9.7 The organisation actively recruits persons with disabilities

To determine if sector had a significant effect on whether the organisation actively recruited persons with disabilities, cross-tabulations with chi-square tests were implemented. Column proportions were compared to serve as post-hoc tests and, because of lower statistical power, Bonferroni adjustment for p-values was not used. The statistics of the case processing summary are provided in Table 48D in Appendix D and the sector cross-tabulation is contained in Table 49D in Appendix D. Table 6.42 below indicates the chi-square tests and Figure 6.37 below demonstrates whether the organisation actively recruits persons with disabilities.

Table 6.42

Chi-square tests

	Value	d	Asymptotic significance (2-sided)
Pearson chi-square	18.004 ^a	10	.055
Likelihood ratio	18.093	10	.053
Linear-by-linear association	1.289	1	.256
N of valid cases	272		

a. 2 cells (9.1%) have expected count less than 5. The minimum expected count is 4.28.

At the 5% level of significance, sector had a marginally significant effect on whether the organisation actively recruited persons with disabilities, $\chi^2(10) = 18.004$, $p < .10$. Only 40% (n=12) of the respondents in the construction/property development/property management sector reported that their organisation actively recruited persons with disabilities, which differed significantly from that of a number of other sectors, including supply chain/transport (82.6%, n=19), financial services/banking/insurance (76.2%, n=32) and information technology/communication (72.7%, n=24). The proportions in all of the other sectors ranged from 50% to 82.6%.

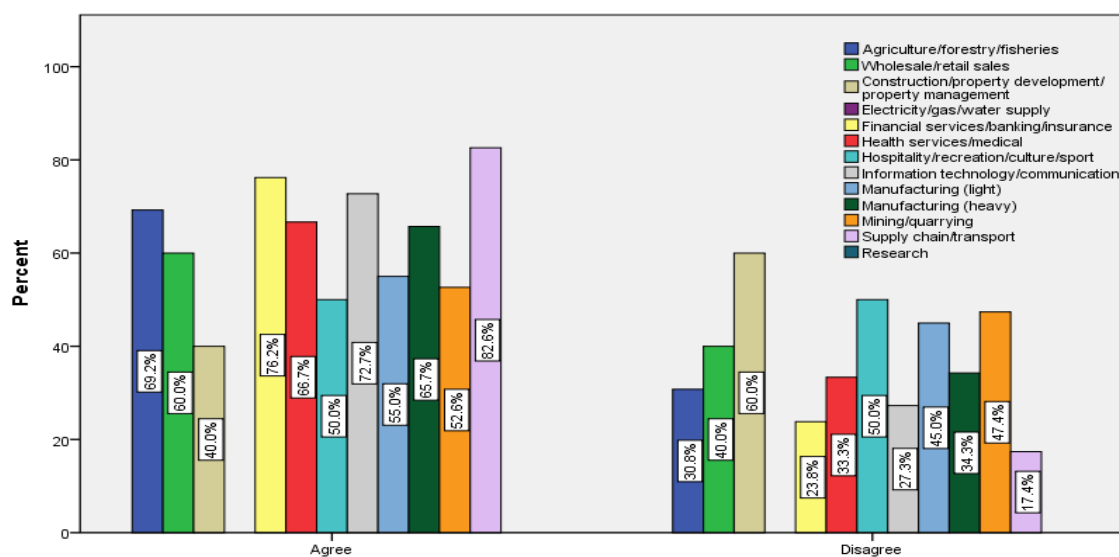


Figure 6.37 The organisation actively recruits persons with disabilities

6.3.9.8 Interpretation of theme 9

In interpreting patterns that emerged from the results and findings generated by the data, convergent findings (similarities) and divergent findings (differences) are derived predominantly from the responses of the majority of the participants to a particular question.

The results that emanated from theme 9, which depicted comparisons between industrial sectors in respect of certain dimensions, revealed both convergent and divergent findings. The extant literature suggests that certain industrial sectors

were receptive to employing persons with disabilities while others were not. However, the type of disability involved is rarely mentioned, as indicated in Chapter 2. Lengnick-Hall et al. (2005) found that organisations in the wholesale and retail trade, as well as those offering professional services, were more receptive to employing persons with disabilities, than those operating in the agricultural, mining, construction and manufacturing sectors. Domzal et al. (2008) also reported that the manufacturing sector was less willing to employ persons with disabilities.

In this study, the nature of the industrial sector involved had a highly significant effect on two and a significant effect on three of the dimensions analysed. In the case of the remaining two, sector had a lower impact on the dimensions analysed.

Sector had a highly significant effect on whether the respondents believed their organisation's work processes could be mastered by a person with a physical disability. Those respondents in the financial services/banking/insurance sector generally agreed that their processes could be mastered by a person with a physical disability. To a lesser extent, those in the hospitality/recreation/culture/sport sector, the information technology/ communication sector and the supply chain/transport sector all seemed to agree. However, those in the manufacturing (heavy) sector were the least convinced that their organisation's work processes could be mastered by a person with a physical disability. These findings are not unexpected.

Sector had a highly significant effect on whether the organisation had safety concerns about employing a person with a physical disability. Those respondents in the financial services/ banking/insurance sector had the least safety concerns as well as those in the information technology/communication sector. However, in all the other sectors, respondents had safety concerns, albeit in varying degrees, with the strongest apprehension on the part of the mining/quarrying sector. These findings are not unexpected.

Sector had a significant effect on whether the organisation provided training in disability matters. Specifically, those respondents in the construction/property development/property management sector and those in the information technology/communication sector seemed considerably less inclined to provide training in disability matters than those in the other sectors. The reluctance of those in the information technology/communication sector could be regarded as an unexpected finding.

Sector had a significant effect on whether the perceived cost of accommodation and/or assistive technology/devices would prevent the organisation from employing a person with a disability. Those respondents in the supply chain/transport sector indicated the least objection to this perceived cost, although there were only three respondents in this sector. Those in the manufacturing (light) sector, followed by the manufacturing (heavy) sector and the health services/medical sector generally agreed that these costs would prevent their organisation from employing a person with a disability. However, in none of the sectors, more than 50% of the respondents agreed with this perception of cost. These findings are not unexpected.

Sector had a significant effect on whether the respondents believed that employers felt unfamiliar with how to manage the needs of persons with disabilities. Agriculture/forestry/fisheries was the only sector in which less than half of the respondents agreed, while those in all the other sectors believed that employers felt unfamiliar with how to manage the needs of persons with disabilities. Overall, these findings are not unexpected, taking cognisance of the theory and the responses of the sample of employers, as reported earlier in this chapter.

Had the sample size been larger, a significant result might have transpired in respect of whether the organisation would be willing to restructure or redesign an existing job to accommodate a person with a physical disability. Specifically, those respondents in the financial services/banking/insurance sector as well as those in the manufacturing (heavy) sector, seemed less inclined to restructure or redesign

an existing job than those in the other sectors. The stance of the financial services/banking/insurance sector is an unexpected finding, considering the nature of work involved.

Sector had a marginally significant effect on whether the organisation actively recruited persons with disabilities. Only two fifths of the respondents in the construction/property development/property management sector reported that their organisation actively recruited persons with disabilities, which differed significantly from those in the other sectors. This was not an unexpected finding.

One explanation for smaller than expected differences found between sectors in respect of some dimensions, could be that construction, mining and manufacturing companies also employ administrative staff in accounting, human resources, purchasing and so forth, which would be accessible to a person with a physical disability.

These findings can be related to research aim 2 of this study, namely to determine the statistically significant differences that exist between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment in the South African formal sector. Other causes of exclusion of persons with physical disabilities from the workplace, as expounded on in Chapter 2, resort under different themes, presented in the appropriate sections of this chapter. The implications of the results and findings are contained in section 6.4, while the associated meta-inferences (Venkatesh et al., 2013) are presented in Chapter 7.

6.3.10 Theme 10: Constructs which underlie the causes of exclusion of persons with physical disabilities from employment

Exploratory research was conducted in this study and, once the exploratory factor analysis (EFA) had been completed and latent factors emerged, the researcher, in collaboration with the statistician, decided to execute structural equation

modelling (SEM). Thus, in order to uncover the constructs, which underlie the causes of exclusion of persons with physical disabilities from employment, EFA and SEM were performed.

Research aim 3

To uncover the constructs which underlie the causes of exclusion of persons with physical disabilities from employment.

The customised survey questionnaire administered to employers formed the quantitative strand of the mixed methods research and produced a mass of data that required reduction in order to identify the underlying factors that contribute to the exclusion of persons with physical disabilities (PWD) from employment. The unit of analysis in the EFA encompassed the variables that were associated with the exclusion of persons with physical disabilities from employment in order to identify the latent dimensions (Hair et al., 2006). The data obtained in this study were described in the preceding sections of this chapter.

6.3.10.1 Exploratory factor analysis (EFA)

As expounded on in Chapter 5, factor analysis is a statistical technique that is used to identify a relatively small number of factors underlying the relationships between a set of variables, and is useful for condensing a mass of correlations or summarising a large correlation matrix. The researcher therefore intended to establish whether a wide range of variables could be more meaningfully represented by a small number of underlying dimensions (Tredoux & Pretorius, 1999). According to Hair et al. (2006), the factors are formed to maximise explanation of the entire variable set and not to predict a dependent variable.

In this study, the logical next step, following the analyses of the descriptive statistics and qualitative themes, entailed EFA to ascertain whether latent factors could be uncovered from the data for further analysis and interpretation.

Specifically, such latent factors would presumably underpin the perspectives and attitudes of respondents (employers) pertaining to the employment of persons with physical disabilities. The question numbers contained in the customised survey questionnaire (items) were retained, indicated as Q plus the question number, in order to facilitate clarity and cross-referencing.

a EFA procedure

Principal components analysis (PCA) considers the total variance and derives factors that contain small proportions of unique variance and even error variance (Hair et al., 2006). To uncover possible latent factors in the data of this study, PCA was applied by the statistician by means of IBM SPSS Statistics Version 24 to examine patterns of correlations among the respondents' perceptions pertaining to various factors that addressed the employment of persons with physical disabilities. The factorability of the correlation matrix was investigated using the Pearson product-moment correlation coefficient. Table 6.43 below discloses the Pearson correlation coefficients among the original 21 items.

Table 6.43

Pearson correlation coefficients among the original 21 items (N=332, Pairwise)

	Q3_2_rev	Q33ab	Q34ab	Q35	Q36a	Q37a	Q38a	Q39_rev	Q40,41,42_rev	Q43a_rev	Q46_rev	Q47	Q48	Q49a	Q51a_rev	Q52	Q53	Q54	Q55	Q56	Q60_rev
Q32_rev General willingness to make job-related modifications	1																				
Q33ab Willingness to make premises accessible to people with physical disability	.341**	1																			
Q34ab Willingness to implement assistive technology	.412**	.645**	1																		
Q35 The perceived cost of accommodations and/or assistive technology/devices would prevent the company from employing a person with a disability.	.157**	.265**	.328**	1																	
Q36a The company has safety concerns (physical hazards/accident risks) about employing a person with a physical disability.	-.0053	0.098	0.053	.127*	1																
Q37a The company has concerns about customer reactions to dealing with a person with a visible or physical disability.	.140*	0.011	0.050	.269**	0.091	1															
Q38a The company has had a negative experience with employing a person with a disability.	0.101	0.090	0.031	.171**	0.026	.309**	1														
Q39_rev The company endeavours to be perceived as a socially responsible employer with such responsibility extending to the employment of people with disabilities.	.308**	.288**	.383**	.165**	0.066	.257**	.132*	1													
Q40,41,42_rev Willingness to employ a person with a physical/neurological/sensory disability	.341**	.290**	.426**	.239**	.144*	.258**	.233**	.496**	1												
Q43a_rev The company would be willing to employ a person with a psychosocial/psychological / psychiatric/cognitive disability.	.154**	0.092	.217**	0.061	.117*	0.095	-.0016	.242**	.517**	1											
Q46_rev - The company's work processes (e.g. production floor technology) could be mastered by a person with a physical disability e.g. amputated leg wheelchair-user.	0.114	.238**	.140*	.158**	.263**	0.052	0.074	.196**	.320**	.221**	1										

	Q3 2_r ev	Q33 ab	Q34a b	Q35	Q36a	Q37a	Q38a	Q39_ rev	Q40, 41,4 2_re v	Q43a _rev	Q46_ rev	Q47	Q48	Q49a	Q51a _rev	Q52	Q53	Q54	Q55	Q56	Q60_ rev
47 PWD often lack the skills and experience (competence) required for available positions.	0.052	0.040	-0.038	0.075	0.090	.159**	0.073	0.077	.125*	0.095	.123*	.1									
Q48 PWD are often viewed as less productive than able-bodied employees (e.g. lower standard of job performance slower work speed unreliability less endurance absent more frequently higher staff turnover etc.).	.205**	0.102	0.108	.224**	0.110	.303**	.322**	.254**	.289**	.144*	.143*	.374**	.1								
Q49a PWD should be subjected to the same performance standards as able-bodied employees.	-0.087	-0.017	-0.014	-0.026	0.008	.183**	0.080	.255**	.200**	.150*	.157**	.148*	.262**	.1							
Q51a_rev - Generally your experience of employing people with physical disabilities has been positive.	0.101	0.078	.176**	.124*	.130*	.149*	.240**	.178**	.391**	.188**	0.111	0.106	.278**	.165**	.1						
Q52 - PWD depend more on assistance from colleagues (supervisors and co-workers) than their able-bodied peers which adds to their workload.	0.089	0.068	0.105	.189**	.126*	.156**	.207**	.135*	.256**	.153*	.126*	.344**	.324**	-.277**	.247**	.1					
Q53 - Employers feel unfamiliar with how to manage the needs of people with disabilities (including knowledge of accommodation and assistive technology).	0.094	.200**	.163**	.179**	0.117	0.013	0.076	0.007	0.080	0.050	.189**	.133*	.159**	-0.094	-0.079	.257**	.1				
Q54 - Supervisors feel apprehensive or unsure of how to discipline/evaluate the performance of PWD.	0.033	0.114	0.101	0.114	.135*	0.058	0.085	0.006	0.061	0.100	.153*	.129*	.216**	-.151*	-0.071	.228**	.716**	.1			
Q55 - PWD cause co-workers to feel uncomfortable working alongside them.	.177**	0.045	.123*	.199**	0.105	.308**	.190**	.150*	.303**	.139*	.200**	.214**	.395**	-.129*	.159**	.283**	.308**	.351**	.1		
Q56 - PWD cause co-workers to react with resentment where teamwork performance is rewarded (e.g. shared incentives).	0.103	0.109	.140*	.234**	0.036	.229**	.268**	.194**	.265**	.135*	.188**	0.113	.407**	.283**	.187**	.185**	.198**	.197**	.577**	.1	
Q60_rev - The company actively recruits people with disabilities.	.258**	.214**	.397**	.244**	0.097	.170**	.119*	.339**	.548**	.364**	.236**	-0.038	.153*	-.203**	.250**	0.118	.265**	.215**	.205**	.129*	.1

The Kaiser-Meyer-Olkin value was 0.760, which falls above the recommended minimum value of 0.6 (Kaiser, 1970, 1974). In this study, Bartlett's test of sphericity (Bartlett, 1954) reached statistical significance at $p < .001$. The correlation matrix was therefore deemed factorable. According to Hair et al. (2006), Bartlett's test of sphericity provides the statistical significance ($< .05$) that the correlation matrix has significant correlations among at least some of the variables. Table 6.44 below demonstrates the KMO and Bartlett's test.

Table 6.44

KMO and Bartlett's test

Kaiser-Meyer-Olkin measure of sampling adequacy		.760
Bartlett's test of sphericity	Approx. chi-square	1401.123
	df	153
	Sig.	.000

As indicated in Table 6.44, the KMO exceeded .70 and Bartlett's test of sphericity was significant at the 0.00 level (Hair et al., 2006). According to Hair et al. (2006), with a sample size of 350, factor loadings of .30 are deemed significant at the .05 significance level. The correlation matrix (Table 6.43) demonstrates a number of coefficients of 0.3 and higher. A researcher has to decide when to discontinue factoring. All factors with eigenvalues of less than 1 are discarded (Hair et al., 2006), as was also the case in this study.

To obtain the final factor solution, the following process was applied: Initially, 25 items were selected for EFA that were regarded as being associated with an employer's receptivity to employing persons with physical disabilities. As described previously, the items of the customised survey questionnaire were formulated based on the literature review presented in Chapter 2. Certain items were combined, based on the supplementary nature of their contents (Q33a + Q33b; Q34a + Q34b; Q40 + Q41 + Q42), leaving 21 items for submission to PCA, which resulted in a six-component solution (with eigenvalues equal to 1 or higher), explaining 58.445% of the variance in the data set with 21 variables. Three of these six components had only two items loading on them. One item

(Q51a) did not load on any of the components with .50 or more, and was discarded in the next round in order to find a solution. This resulted in a new six-component solution (with eigenvalues equal to 1 or higher), explaining 59.927% of the variance in the data. However, three of these components had only two items loading on them. One of the components with only two items loading on it needed to be discarded since the correlation between the items loading on it was effectively zero. The other two components could be retained because the items correlated with one another and did not correlate much with any of the other items. Table 6.45 below displays the retained and rejected components.

Table 6.45

Retained and rejected components

Q36a & Q46	$r = -.263$	No motivation to keep
Q47 & Q52	$r = .344$	Keep
Q53 & Q54	$r = .716$	Keep

In this study, the 18 remaining items were analysed to assess outliers and missing values. Visual inspection of box plots for each of the components identified 21 outliers. Upon further investigation of the raw data, it was established that the outliers were random across sectors and that adequate representation was maintained in the case of all sectors, including small ones, despite the outliers. Outliers with a large number of non-responses were deleted, and in cases with only a few missing responses, the sample mean for the particular item was used to impute a score. The 18 items that remained were used in a final EFA, which resulted in a five-component solution explaining 58.646% of the variance in the data (Table 6.46). Item Q35 was deemed to fit component 1 better at a theoretical level than component 2, even though it had loaded higher on component 2. Item Q48 was deemed to fit component 5 better at a theoretical level than component 2, even though it had loaded higher on component 2. As such, this resulted in a single component (Q53, Q54) with only two items loading on it. However, owing to the strong correlation between them and weak

correlations with other items, this component was retained in the solution. Table 6.46 below illustrates the total variance explained by EFA.

Table 6.46

Total variance explained by EFA

Component	Initial eigen values			Extraction sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	4.428	24.602	24.602	4.428	24.602	24.602
2	2.127	11.814	36.416	2.127	11.814	36.416
3	1.630	9.056	45.472	1.630	9.056	45.472
4	1.256	6.980	52.452	1.256	6.980	52.452
5	1.115	6.193	58.646	1.115	6.193	58.646
6	.939	5.219	63.865			
7	.898	4.991	68.856			
8	.827	4.594	73.451			
9	.787	4.375	77.826			
10	.647	3.595	81.420			
11	.596	3.309	84.730			
12	.558	3.101	87.831			
13	.511	2.839	90.669			
14	.443	2.464	93.133			
15	.381	2.117	95.250			
16	.328	1.823	97.073			
17	.283	1.573	98.646			
18	.244	1.354	100.000			

Extraction method: PCA

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

As explained in Chapter 5, eigen values represent the amount of variance explained by each factor, with eigen values greater than one, indicating meaningful factors (Tredoux & Pretorius, 1999). The total variance explained by the five factors amounted to 58.646%, of which the first factor (accommodation and AT) explained 24.602% of the total variance. AT refers to assistive technology. The five-factor solution was also confirmed by the scree test as reflected in Figure 6.38 below.

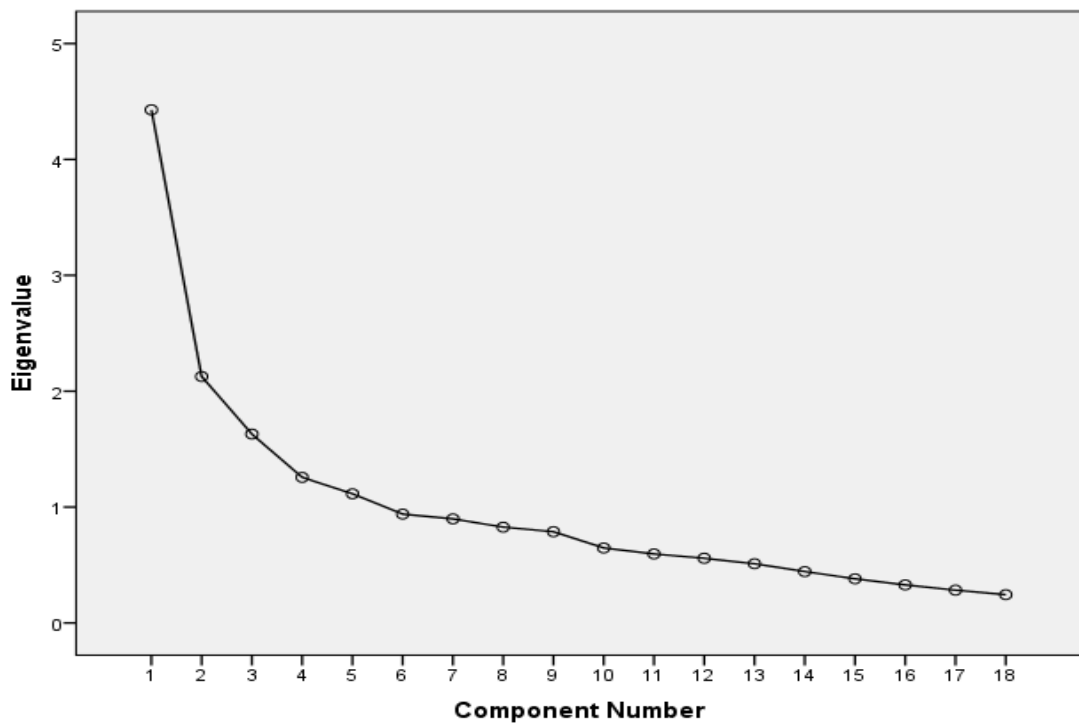


Figure 6.38 Scree plot

Promax rotation was performed. This is a rotation method that allows for correlation among the latent factors. The exclusion of factor loadings of less than 0.5, resulted in a simple structure (Thurstone, 1947), with each of the five components showing a number of strong loadings (Table 6.47).

Oblique rotation was selected since this method allows correlations between latent factors. Promax was chosen since it first rotates orthogonally and then rotates this solution again obliquely to allow for correlations among factors (Tabachnick & Fidell, 2007).

b EFA results

The factor pattern matrix and the internal consistencies (Cronbach's alpha coefficients) of the extracted components are indicated in Table 6.47 below.

Table 6.47

Factor pattern matrix: PCA with promax rotation (Kaiser normalisation)

Items	Component				
	1	2	3	4	5
Q33ab Willingness to make premises accessible to people with physical disability	.870	-.119	-.152	.097	.093
Q34ab Willingness to implement assistive technology	.789	-.077	.144	.074	-.078
Q32 rev General willingness to make job-related modifications	.619	-.009	.131	-.094	.097
Q56 PWD cause co-workers to react with resentment where teamwork performance is rewarded (e.g. shared incentives).	-.120	.717	.058	.147	-.077
Q38a The company has had a negative experience with employing a person with a disability.	.038	.715	-.177	-.116	-.037
Q37a The company has concerns about customer reactions to dealing with a person with a visible or physical disability.	-.088	.714	.040	-.223	-.002
Q55 PWD cause co-workers to feel uncomfortable working alongside them.	-.120	.610	.072	.321	.006
Q48 PWD are often viewed as less productive than able-bodied employees (e.g. lower standard of job performance slower work speed unreliability less endurance absent more frequently higher staff turnover etc.).	.057	.479	-.006	-.008	.435
Q35 The perceived cost of accommodations and/or assistive technology/devices would prevent the company from employing a person with a disability.	.427	.466	-.238	.077	-.066
Q43a rev The company would be willing to employ a person with a psychosocial/psychological/psychiatric/cognitive disability.	-.102	-.206	.864	.006	.032
Q60 rev The company actively recruits people with disabilities.	.145	.033	.666	.224	-.266
Q40,41,42 rev Willingness to employ a person with a physical/neurological/sensory disability	.261	.150	.647	-.104	.009
Q49a rev PWD should be subjected to the same performance standards as able-bodied employees.	-.255	.029	.487	.025	.317
Q39 rev The company endeavours to be perceived as a socially responsible employer with such responsibility extending to the employment of people with disabilities.	.333	.095	.441	-.241	.094
Q53 Employers feel unfamiliar with how to manage the needs of people with disabilities (including knowledge of accommodation and assistive technology).	.122	-.065	-.036	.894	.065
Q54 Supervisors feel apprehensive or unsure of how to discipline/evaluate the performance of PWD.	-.042	-.020	.043	.879	.065
Q47 PWD often lack the skills and experience (competence) required for available positions.	.070	-.091	-.090	.002	.876
Q52 PWD depend more on assistance from colleagues (supervisors and co-workers) than their able-bodied peers, which adds to their workload.	.058	-.005	.089	.183	.648
Cronbach's alpha	.660	.630	.696	.835	.609

The subscales for the extracted component were obtained by calculating the means of the items loading on each of the subscales, which culminated in the following five latent factors being calculated and then named:

Component 1: Accommodation and AT;

Component 2: Negative behavioural reactions;

Component 3: Employer's receptivity;

Component 4: Apprehension about managing PWD; and

Component 5: Perceived reduced competence.

The researcher labelled each component (latent factor) based on its representation of its underlying dimensions (Hair et al., 2006). According to MacCallum and Austin (2000), a given latent factor is defined by that which its indicators have in common.

It should be pointed out that the latent factor (component 1), named "Accommodation and AT", refers to the willingness of the employer to implement accommodation (accessible premises, adapted technology and job-related modifications) and assistive technology (AT) and not to the perceived cost of such. The latent factor (component 2), termed "Negative behavioural reactions", measures the reaction of co-workers towards a person with a disability. The latent factor (component 3), termed "Employer's receptivity", entails receptivity on the part of the employer to employ persons with different disabilities (physical, neurological, sensory and psychosocial disabilities). The latent factor (component 4), termed "Apprehension about managing PWD", constitutes unfamiliarity on the part of the employer regarding the management of persons with disabilities in respect of their needs and the evaluation of their job performance. The latent factor (component 5), termed "Perceived reduced competence", entails the perceptions of employers and able-bodied employees that persons with disabilities are deemed less productive, more reliant on others' assistance and lacking in skills and job experience. The results of the communality analysis are provided in Table 6.48 below.

Table 6.48

Communalities of the 18 items (PCA)

Items	Initial	Extraction
Q32 rev General willingness to make job-related modifications	1.000	.464
Q33ab Willingness to make premises accessible to people with physical disability	1.000	.671
Q34ab Willingness to implement assistive technology	1.000	.714
Q35 The perceived cost of accommodation and/or assistive technology/devices would prevent the company from employing a person with a disability.	1.000	.411
Q37a The company has concerns about customer reactions to dealing with a person with a visible or physical disability.	1.000	.477
Q38a The company has had a negative experience with employing a person with a disability.	1.000	.415
Q39 rev The company endeavours to be perceived as a socially responsible employer with such responsibility extending to the employment of people with disabilities.	1.000	.502
Q40,41,42 rev Willingness to employ a person with a physical/neurological/sensory disability	1.000	.717
Q43a rev The company would be willing to employ a person with a psychosocial/psychological/psychiatric/cognitive disability.	1.000	.610
Q47 PWD often lack the skills and experience (competence) required for available positions.	1.000	.701
Q48 PWD are often viewed as less productive than able-bodied employees (e.g. lower standard of job performance, slower work speed, unreliability, less endurance, absent more frequently, higher staff turnover, etc.).	1.000	.581
Q49a rev PWD should be subjected to the same performance standards as able-bodied employees.	1.000	.386
Q52 PWD depend more on assistance from colleagues (supervisors and co-workers) than their able-bodied peers, which adds to their workload.	1.000	.531
Q53 Employers feel unfamiliar with how to manage the needs of people with disabilities (including knowledge of accommodation and assistive technology).	1.000	.817
Q54 Supervisors feel apprehensive or unsure of how to discipline/evaluate the performance of PWD.	1.000	.790
Q55 PWD cause co-workers to feel uncomfortable working alongside them.	1.000	.582
Q56 PWD cause co-workers to react with resentment where teamwork performance is rewarded (e.g. shared incentives).	1.000	.548
Q60 rev The company actively recruits people with disabilities.	1.000	.638

Extraction Method: PCA.

Variables should generally have communalities of > .50 if they are to be retained (Hair et al., 2006). All the measures of communality (Table 6.48) exceeded .40, except for item Q49a, which was still deemed acceptable because it was higher than 0.30, and based on its theoretical prominence in the literature.

As illustrated in Table 6.49 below, the kurtosis and skewness indicated deviation from the normal distribution where the values of skewness and kurtosis are supposed to be zero.

Table 6.49
Descriptive statistics of latent constructs

Component	N	Mean	S.E.	S.D.	Skewness	S.E.	Kurtosis	S.E
Accommodation and AT	333	3.85	.045	.818	-.419	.134	1.116	.266
Negative behavioural reactions	277	2.52	.045	.756	-.429	.146	-.588	.292
Employer's receptivity	295	4.28	.044	.758	.341	.142	-.232	.283
Apprehension about managing PWD	278	3.79	.059	.987	-.073	.146	.851	.291
Perceived reduced competence	281	3.08	.051	.863	-.546	.145	.290	.290
Valid N (listwise)	277							

SE = standard error of the preceding statistic SD = standard deviation

In these results, the kurtosis and skewness indicated deviation from the normal distribution where the values of skewness and kurtosis are supposed to be zero. However, in a large sample, the impact of departure from zero kurtosis also diminishes. Underestimates of variance associated with positive kurtosis disappear with samples of 100 or more cases, while with negative kurtosis, underestimation of variance disappears with samples of 200 or more (Tabachnick & Fidell, 2007). In this study, the indicated kurtosis and skewness (Table 6.49) were therefore deemed acceptable owing to the sample size of employers.

Table 6.50 below shows the Pearson correlations among the latent constructs that were derived from EFA.

Table 6.50

Pearson correlations among the latent constructs

	Accommodation and AT	Negative Behavioural Reactions	Employer's Receptivity	Apprehension about Managing PWD	Perceived Reduced Competence
Accommodation and AT	1				
Negative Behavioural Reactions	-.251**	1			
Employer's Receptivity	.418**	-.349**	1		
Apprehension about managing PWD	-.197**	.239**	-.164**	1	
Perceived Reduced Competence	-.185**	.442**	-.299**	.259**	1

** . Correlation is significant at the 0.01 level (2-tailed).

These latent constructs appear to underlie the causes of exclusion of persons with physical disabilities from the workplace.

c Interpretation

The EFA identified five latent factors (components) from the data, as illustrated in Table 6.50, which appeared to underpin the causes of exclusion of persons with physical (and other) disabilities from employment and could serve as an impetus for the development of interventions to assuage this state of affairs. These latent factors can be related to the findings of other researchers as expounded on in Chapter 2 as well as to themes 1 to 5 described earlier in this chapter. Hair et al. (2006) contended that factor analysis provides insight into the interrelationships between variables and the underlying structure of the data, which can serve as the foundation for other multivariate techniques. In this vein, the researcher then investigated whether structural equation modelling (SEM) would be feasible in an endeavour to identify the constructs which underlie the causes of exclusion of persons with physical disabilities from employment. In order to effect change, a point of departure is needed both at

the national level and at the organisational level of policy formulation, to promote the employment of persons with disabilities.

6.3.10.2 Structural equation modelling (SEM)

As reported in the previous section, the EFA produced five distinct components (factors). SEM was then conducted to test whether the EFA-suggested relationships between the observed variables and their underlying constructs indeed existed.

In this study, the researcher embarked on the following three forms of SEM:

- (1) SEM 1: Confirmatory factor analysis (CFA)
- (2) SEM 2: A structural model
- (3) SEM 3: A general structural model

The standardised results are presented in the sections that follow, while the unstandardised results are contained in Appendix E.

a SEM 1 (CFA)

The first phase consisted of a CFA. As expounded on in Chapter 5, CFA is a statistical technique that examines the nature of and relationships between latent constructs derived from EFA (Jackson et al., 2009). According to Hair et al. (2006), CFA serves to confirm or purify the results obtained from EFA.

i SEM 1 (CFA) procedure

To establish the viability of the factor solution by performing a CFA, IBM SPSS Amos V24 was used by the statistician. In preparation of the data for CFA, missing data were addressed to facilitate data integrity by applying mean substitution, where possible, while cases with missing values for a substantial number of indicators were discarded. The reason for several missing values could plausibly be ascribed to the lengthy customised survey questionnaire not being completed in those cases. The outcome was a sample size of 295 cases,

as opposed to the initial sample size of 342 respondents (employers). The 18 variables that loaded on the five factors derived by the EFA solution, served as the basis in preparing cases for SEM by executing a missing value analysis (MVA). Several items were reverse-coded. Table 6.51 below discloses the missing response analysis.

Table 6.51
Missing response analysis

Number missing	Frequency	Percent	Valid percent	Cumulative percent
0	262	76.6	76.6	76.6
1	13	3.8	3.8	80.4
2	2	.6	.6	81.0
4	1	.3	.3	81.3
6	1	.3	.3	81.6
7	2	.6	.6	82.2
10	7	2.0	2.0	84.2
11	7	2.0	2.0	86.3
14	9	2.6	2.6	88.9
16	1	.3	.3	89.2
18	23	6.7	6.7	95.9
19	2	.6	.6	96.5
20	2	.6	.6	97.1
21	1	.3	.3	97.4
23	9	2.6	2.6	100.0
Total	342	100	100	

Table 6.51 indicates that nine of the 342 cases did not have responses for 23 of the variables involved in the EFA, while five respondents had missing values for 19 to 21 of the variables, 23 respondents had missing values for 18 variables and 10 respondents had missing values for 14 to 16 of the variables. Listwise deletion was implemented for cases with numerous missing scores on the variables (Kline, 2011). Even though deletion of cases and mean substitution affect the underlying distribution of the data (Kline, 2011), the decision was made to discard the 47 respondents with missing values for 12 or more items, leaving 295 respondents and therefore an ample sample for purposes of SEM (Hair et al., 2006). Also, the sample was considered homogeneous, because it

was a purposive sample of formal private sector employers. The missing values in the retained cases seemed to be missing completely at random (MCAR) (Hair et al., 2006) and, owing to the exploratory nature of the investigation, it was deemed acceptable to impute mean values for those respondents who had missing values for 11 or less of these variables. Items (questions) with closely related contents were combined, specifically Q32, Q33, Q34 and Q40, Q41, Q42.

ii SEM 1 (CFA) results

The constructs uncovered by EFA were confirmed by the fit indices, resulting in an unstandardised and a standardised CFA model. Some items were removed from the model owing to low squared multiple correlations (SMC), namely Q35, Q37, Q38 and Q49. The matrices, both in terms of covariance and correlation, were generated by the computer software program directly from the data (Hair et al., 2006).

In this SEM 1 (CFA) model, the indicators formed the measurement model, while the latent variables (constructs) formed the structural model of the CFA. Two of the constructs, “negative behavioural reactions” and “apprehension about managing PWD”, had only two indicators each, as opposed to the rule of thumb of at least three indicators (Hair et al., 2006). However, the researcher retained these constructs since the contents of these indicators (Q53, Q54, Q55 and Q56) featured prominently in the literature, as expounded on in Chapter 2, and formed part of Themes 4 and 5 as described earlier in this chapter. In order to ultimately use aspects of this research for policy formulation, all the constructs and their indicators would warrant consideration. In the case of this study, data had already been collected, and the model could therefore not be expanded by adding items. The tables pertaining to the unstandardised CFA diagram are contained in Appendix E. The df was positive ($df = 67$) and the chi-square test was significant ($\chi^2 = 135.642$; $p < .000$). The squared multiple correlation estimates (SMC) ranged between .251 and .804, with an average of 0.48. It was therefore accepted that elements external to the model affected the indicators to a lesser or greater extent. The SEM 1 (CFA) rendered a parameter to sample

size ratio of 1:8. Generally, 10 participants per estimated parameter would suffice for SEM (Schreiber, Stage, King, Nora, & Barlow, 2006). The results of the standardised SEM 1 (CFA) model generated acceptable fit indices: (GFI = .939; RMSEA = .059; TLI = .918; CFI = .940); and the model was recursive. As such, the SEM 1 (CFA) model displayed an acceptable fit to the data and, furthermore, the model was identified.

iii SEM 1 (CFA) standardised path diagram

The SEM 1 (CFA) unstandardised path diagram and the tables containing the unstandardised regression weights and covariances are contained in Figure 1FE and Tables 1E and 2E in Appendix E, respectively.

Owing to restrictions of the computer software program, the construct “employer’s receptivity” does not contain an apostrophe in the various SEM diagrams.

The SEM 1 (CFA) standardised path diagram is displayed in Figure 6.39 below.

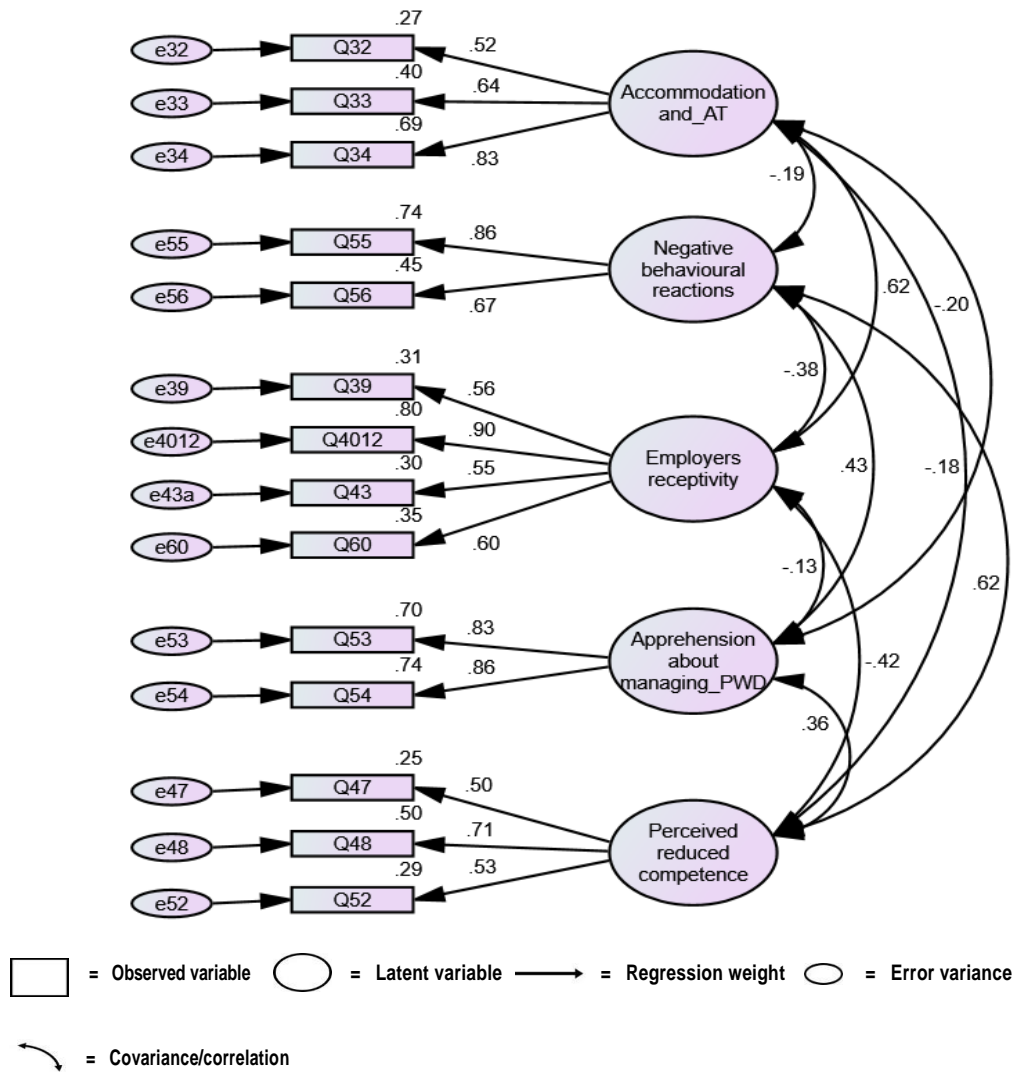


Figure 6.39 SEM 1 (CFA) standardised path diagram

The composition of the five latent factors derived from EFA was indicated in the preceding section (Table 6.47). In the standardised SEM 1 (CFA) path model there were no second order factors. Unidimensional measurement transpired since every indicator loaded on one factor only and there were no measurement error variance (e) correlations (disturbance correlations) (Kline, 2011). The indicator Q4012 refers to Q40, Q41 and Q42 combined. The factor loadings met the .50 estimation, which is deemed acceptable for exploratory research, although a portion of convergent validity (Kline, 2011) was forfeited in respect of several values in the standardised SEM 1 (CFA) model. The absence of a measurement error correlation between a pair of indicators reflects the assumption that their observed correlation can be explained by their underlying factors, the so-called “local independence assumption” that the indicators are

independent (Kline, 2011). The estimated correlations (standardised covariances) between the factors were well below .90, indicating discriminant validity (Kline, 2011), hence the constructs were distinct/unique. Furthermore, the content meaning of all the indicators (items) included in the customised survey questionnaire seemed to possess high face validity because they were designed to be transparent. Hair et al. (2006) defined face validity as the extent to which the contents of the items is consistent with the construct definition, based on the researcher's judgement.

iv Properties of the SEM 1 (CFA) model

This model was recursive since the arrows were single-headed and paths between constructs occurred from the predictor construct to the outcome construct (Hair et al., 2006).

Sample size = 295

The model contained the following variables:

Observed, endogenous variables (indicators/items):

Q34, Q33, Q32, Q56, Q55, Q54, Q53, Q52, Q48, Q47, Q43, Q40/Q41/Q42, Q39, Q60

Unobserved, exogenous variables:

Accommodation and AT (e34, e33, e32)

Negative behavioural reactions (e56, e55).

Apprehension about managing PWD (e54, e53)

Perceived reduced competence (e52, e48, e47)

Employer's receptivity (e60, e43a, e40/e41/e42, e39)

Number of variables in the model: 33 (all ovals and rectangles)

Number of observed variables: 14 (indicators/items)

Number of unobserved variables: 19 (error variances and factors)

Number of exogenous variables: 19 (error variances and factors)

Number of endogenous variables: 14 (indicators/items)

Number of distinct sample moments: 105

Number of distinct parameters to be estimated (all numeric values in the model) 38

Parameter to sample size ratio: 1:8

Chi-square = 135.642

Degrees of freedom (105-38) = 67

Probability level = .000

As explained in Chapter 5, should a chi-square of 0 be obtained, the model would fit the data and the null hypothesis would be accepted. However, in the case of this SEM 1 (CFA) model, the chi-square was significantly larger than 0, probably as a result of the relatively large sample (Hair et al., 2006) and therefore of high precision. To counter this result, the researcher applied several fit indices, which indicated favourable values, as shown in Table 6.56. The SEM 1 (CFA) model generated was recursive and, according to Kline (2011), such structural models are always identified and have unidirectional effects.

v Maximum likelihood estimates (MLE)

MLE assumes multivariate normality of the observed variables and a sample size of several hundred (Boomsma, 2000). In this study, MLE was selected by the computer software program. In the SEM 1 (CFA) model, the distribution of the items deviated significantly from normality, but the model was tested in an exploratory context with a sample size of 295 cases. The recommended minimum sample sizes to ensure stable MLE solutions are 100 to 150, but sample sizes in the range of 150 to 400 are suggested. The larger the sample, the smaller the impact of multivariate non-normality will be, with such being minimal on a sample of 200+ cases (Hair et al. 2006).

vi SEM 1 (CFA) tabulation of results

The results of the standardised regression weights are illustrated in Table 6.52 below.

Table 6.52

SEM 1 (CFA): Standardised regression weights

Observed variables and latent constructs			Estimate
Q34	<---	Accommodation and AT	.830
Q33	<---	Accommodation and AT	.635
Q32	<---	Accommodation and AT	.517
Q56	<---	Negative behavioural reactions	.670
Q55	<---	Negative behavioural reactions	.861
Q54	<---	Apprehension about managing PWD	.858
Q53	<---	Apprehension about managing PWD	.835
Q52	<---	Perceived reduced competence	.535
Q48	<---	Perceived reduced competence	.705
Q47	<---	Perceived reduced competence	.501
Q43	<---	Employer's receptivity	.547
Q40/1/2	<---	Employer's receptivity	.897
Q39	<---	Employer's receptivity	.561
Q60	<---	Employer's receptivity	.595

Regression weights (beta values) are determined to minimise the sum-of-squares of the errors of prediction (Kerlinger & Lee, 2000). In the SEM 1 (CFA) model, all of the standardised regression weights of the indicators exceeded .50 (Kerlinger & Lee, 2000). According to Hair et al. (2006), the parameter estimate depicts the linear relationship between a predictor and an outcome. In this model, the estimates were significantly different from zero, and all the constructs therefore had a significant impact on the model.

The results of the correlations of the standardised model are provided in Table 6.53 below.

Table 6.53

SEM 1 (CFA): Correlations

Latent constructs			Estimate
Accommodation and AT	<-->	Negative Behavioural Reactions	-.191
Accommodation and AT	<-->	Apprehension about Managing PWD	-.196
Accommodation and AT	<-->	Perceived Reduced Competence	-.184
Accommodation and AT	<-->	Employer's Receptivity	.617
Negative Behavioural Reactions	<-->	Apprehension about Managing PWD	.430
Negative Behavioural Reactions	<-->	Perceived Reduced Competence	.625
Negative Behavioural Reactions	<-->	Employer's Receptivity	-.379
Apprehension about Managing PWD	<-->	Perceived Reduced Competence	.365
Apprehension about Managing PWD	<-->	Employer's Receptivity	-.126
Perceived Reduced Competence	<-->	Employer's Receptivity	-.417

In this model, the highest correlations occurred between negative behavioural reactions and perceived reduced competence; and between accommodation and AT and employer's receptivity. These results are aligned with the theory, as contained in Chapter 2, and with themes 1, 2, 3 and 4 as described earlier in this chapter.

The results of the variances found are provided in Table 6.54 below.

Table 6.54

SEM 1 (CFA): Variances

Latent constructs and error variances	Estimate	S.E.	C.R.	P
Accommodation and AT	.204	.049	4.179	< .0001
Negative behavioural reactions	.361	.067	5.385	< .0001
Apprehension about managing PWD	.781	.121	6.433	< .0001
Perceived reduced competence	.244	.061	4.031	< .0001
Employer's receptivity	.401	.083	4.831	< .0001
e34	.394	.086	4.589	< .0001
e33	.740	.078	9.447	< .0001
e32	.560	.052	10.820	< .0001
e56	.444	.053	8.440	< .0001
e55	.267	.083	3.207	.001
e54	.280	.090	3.095	.002
e53	.325	.088	3.702	< .0001

e52	.609	.061	9.930	< .0001
e48	.646	.097	6.663	< .0001
e47	1.219	.118	10.305	< .0001
e43a	1.194	.107	11.156	< .0001
e40/1/2	.157	.041	3.804	< .0001
e39	.874	.079	11.075	< .0001
e60	.766	.071	10.831	< .0001

SE = standard error CR = critical ratio P = probability

In this model, all the variances that were found were highly significant. Variance is classified as systematic variance and error variance. Systematic variance is the variation in measures due to some known or unknown influences that cause the scores to lean in one direction more than another. Error variance is the unaccounted fluctuation or varying of measures of the dependent variable and could occur because of chance and therefore random variance (Kerlinger & Lee, 2000).

The results of the squared multiple correlations are contained in Table 6.55 below.

Table 6.55

SEM 1 (CFA): Squared multiple correlations (SMC)

Observed variables	Estimate	VE
Q60	.354	
Q39	.315	
Q40/1/2	.804	
Q43	.300	.44
Q47	.251	
Q48	.497	
Q52	.286	.34
Q53	.697	
Q54	.736	.72
Q55	.742	
Q56	.448	.60

Q32	.267	
Q33	.404	
Q34	.688	.45

VE = variance extracted

Squared multiple correlations are values that represent the extent to which a measured variable's variance is explained by a latent factor, much like communality in EFA, in other words, how well an item measures a construct (Hair et al., 2006). Thus, for CFA, one wishes to determine the reliability of the observed variables in relation to the latent constructs with squared multiple correlations (Schreiber et al., 2006). According to Hair et al. (2006), a VE of .50 and higher suggests adequate convergence, otherwise more error variance exists in the item than variance explained by the relevant latent factor. In this model, at least one item value per latent factor was smaller than the VE, implying that its latent factor (construct) did not explain its variance adequately, and discriminant validity was therefore insufficient. Nevertheless, all the variables were retained on theoretical grounds and because of the exploratory nature of this study.

vii Model fit indices

In this study, the SEM 1 (CFA) model produced the model fit indices illustrated in Table 6.56 below.

Table 6.56

Model fit indices attained

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	38	135.642	67	.000	2.025
Saturated model	105	.000	0		
Independence model	14	1227.537	91	.000	13.489

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.065	.939	.904	.599
Saturated model	.000	1.000		
Independence model	.263	.540	.469	.468

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.059	.045	.073	.144
Independence model	.206	.196	.216	.000

Parsimony-adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.736	.655	.692
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Incremental Indices

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.890	.850	.941	.918	.940
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

vii Interpretation

The computer software program generated a number of fit indices, but they were not all considered in this study. A CFA measurement model can be underidentified (negative degrees of freedom), just identified (zero degrees of freedom) or overidentified (positive degrees of freedom). According to Hair et al. (2006), overidentification is generally the desired state for CFA and SEM models. The SEM 1 (CFA) results obtained in this study generally supported the

measurement model, as well as the path model and ostensibly fitted the data adequately, based on the values achieved by the fit indices. Hence the model was regarded as identified. The values of the fit indices to a certain extent countered the multivariate non-normal distribution of the data.

The CFA tested and confirmed the existence of the relationships between the observed variables (indicators) and their underlying factors (constructs) produced by the EFA. Following the missing data analysis, an ample sample (Hair et al., 2006) of 295 cases remained. Based on the model fit indices, the SEM 1 (CFA) model displayed an acceptable fit to the data and, furthermore, CFA hypothesises that particular indicators (observed scores) measure specific latent factors (constructs), while the latter are assumed to vary and covary. Constructs have a presumed causal effect on the indicators, illustrated in a path diagram by single arrowheads. The indicators are endogenous variables and the constructs are exogenous variables, as described in Chapter 5 (Kline, 2011).

The first construct, accommodation and AT (assistive technology), shaped three indicators. The first indicator measured employers' willingness to make job-related modifications such as redesigning or restructuring a job or adopting flexible hours or schedules to accommodate a person with a disability. The second indicator determined whether an employer's premises were accessible to a person with a physical disability or whether such alterations would be made if necessary. The third indicator established whether an employer had implemented assistive technology where needed or would be willing to acquire such devices if necessary.

The single-headed pathways in the path diagram stretching between the first construct and its three indicators showed significant associations, since the factor loadings met and exceeded the .50 estimation (Kline, 2011). The first construct covaried with all the other constructs in the SEM 1 (CFA) model, as indicated by the double-headed pathways in the path diagram. A strong positive relationship was found between the first construct (accommodation and AT) and the third construct (employer's receptivity), while weak negative relationships were identified with the other constructs (negative behavioural reactions, apprehension about managing PWD and perceived reduced competence).

From these findings, it was inferred that employers are receptive to implementing accommodation and assistive technology in order to enable persons with disabilities to execute the essential functions of their job, in spite of the reported restricted knowledge about these measures as well as the perceived cost, as reflected in Table 6.15 and the associated verbatim quotes. This relatively positive disposition towards accommodation and assistive technology can be regarded as an unexpected finding in the context of the theory on the topic as described in theme 3, earlier in this chapter.

The second construct, negative behavioural reactions, shaped two indicators. The first indicator measured whether co-workers of persons with disabilities would feel uncomfortable working alongside them, while the second one determined whether co-workers would feel resentful towards them where rewards are based on team performance. The single-headed pathways in the path diagram stretching between the second construct and its two indicators showed significant associations, since the factor loadings exceeded the .50 estimation (Kline, 2011). The second construct covaried with all the other constructs in the SEM 1 (CFA) model, as indicated by the double-headed pathways in the path diagram. A strong positive relationship was found between the second construct (negative behavioural reactions) and the fifth construct (perceived reduced competence). A weak positive relationship occurred with the fourth construct (apprehension about managing PWD) and weak negative relationships with the first construct (accommodation and AT) and the third construct (employer's receptivity).

From these findings, it was inferred that negative behavioural reactions on the part of co-workers towards persons with disabilities are particularly affected by perceptions of their competence as workers. Therefore, the more skilled and experienced the person with a disability, the more positive the attitude will be towards him or her. This was an expected finding when cognisance is taken of the theory as described in theme 4, earlier in this chapter. In the case of this study, the majority of employers disagreed with the perception that co-workers felt uncomfortable working alongside persons with disabilities and with the notion that they felt resentful towards this group when rewards were based on team performance, as described in theme 4. Either their employees with

disabilities were suitably qualified for their jobs or they were unaware of co-workers' feelings.

The third construct, employer's receptivity, shaped four indicators. The first indicator measured the employer's desire to be viewed as socially responsible. The second indicator determined the employer's willingness to hire persons with physical, neurological or sensory disabilities, while the third indicator revealed receptivity to psychosocial or cognitive disabilities. The fourth indicator established whether the employer actively recruited persons with disabilities. The single-headed pathways in the path diagram stretching between the third construct and its four indicators showed significant associations, since the factor loadings met and exceeded the .50 estimation (Kline, 2011). The third construct covaried with all the other constructs in the SEM 1 (CFA) model, as indicated by the double-headed pathways in the path diagram. The strength of the relationships between the first and third constructs and between the second and third constructs were discussed in the preceding sections. In addition, the third construct (employer's receptivity) showed a weak negative relationship with the fourth construct (apprehension about managing PWD) and a relatively weak negative one with the fifth construct (perceived reduced competence).

From these findings, it was inferred that an employer's receptivity to hiring persons with disabilities, was relatively strongly associated with the construct of accommodation and assistive technology and, to a lesser extent, with perceived reduced competence, the latter being a negative relationship. Both of these associations were expected findings, when cognisance is taken of the theory as described in themes 1 to 3, earlier in this chapter. The more broad-minded the employer is about accommodation and/or assistive technology required by persons with disabilities, and the better qualified these individuals, the higher the receptivity to their employment. In the SEM 2 and SEM 3 models, which are presented in the sections that follow, the third construct (employer's receptivity) became the "dependent" variable.

The fourth construct, apprehension about managing persons with disabilities, shaped two indicators. The first indicator determined whether employers felt

unfamiliar with managing the needs of persons with disabilities, including accommodation and assistive technology. The second indicator established whether supervisors felt apprehensive about evaluating the job performance of a person with a disability, including imposing discipline. The single-headed pathways in the path diagram stretching between the fourth construct and its two indicators showed significant associations, since the factor loadings exceeded the .50 estimation (Kline, 2011). The fourth construct covaried with all the other constructs in the SEM 1 (CFA) model, as indicated by the double-headed pathways in the path diagram. The strength of the relationships between the fourth construct (apprehension about managing PWD) and the first, second and third constructs was described in the preceding sections. In addition, the fourth construct (apprehension about managing PWD) showed a weak positive relationship with the fifth construct (perceived reduced competence).

From these findings, it was inferred that apprehension about managing persons with disabilities showed relatively weak relationships with all the other constructs. This was an unexpected finding, when cognisance is taken of the theory as described in theme 5. In any event, this construct was discarded in the SEM 3 model, owing to low squared multiple correlations (SMC).

The fifth construct, perceived reduced competence, shaped three indicators. The first indicator determined whether persons with disabilities were perceived as lacking in the required skills and experience (competence). The second indicator established whether persons with disabilities were perceived as less productive than their able-bodied peers, particularly in respect of job performance standards, work speed, reliability, endurance and attendance. The third indicator discerned whether persons with disabilities were perceived as more dependent than their able-bodied peers on assistance from co-workers and supervisors, thus increasing the workload of their colleagues. The single-headed pathways in the path diagram stretching between the fifth construct and its three indicators showed significant associations, since the factor loadings met the .50 estimation (Kline, 2011). The fifth construct covaried with all the other constructs in the SEM 1 (CFA) model, as indicated by the double-headed pathways in the path diagram. The strength of the relationships between the fifth and all the other constructs were discussed in the preceding sections.

For exploratory purposes, the researcher could proceed with the development of a structural model (SEM 2), as well as a general structural model (SEM 3).

b SEM 2 (structural model)

This phase consisted of a structural model. The relationships between constructs are represented by a conceptual structural theory, expressed by means of a structural model, and depicted by a visual diagram (Hair et al., 2006).

i SEM 2 procedure

In this study, a specification search using IBM SPSS Amos Version 24, yielded more than 1 000 000 models. The researcher perused a number of these models in relation to the theory as expounded on in Chapter 2, and selected the third model. The construct of employers' willingness or receptivity to employing persons with physical disabilities, an underlying theme in both the literature and in employers' responses to the customised survey questionnaire, was chosen as a "dependent" variable in SEM with possible direct and indirect associations with the other four EFA-derived factors, namely accommodation and AT, negative behavioural reactions, apprehension about managing PWD and perceived reduced competence (of persons with disabilities).

ii SEM 2 results

Naturally, one could expect the indicators (items) to also measure elements external to the model, since aspects other than those measured might influence employers' receptivity to employing persons with physical disabilities. The theory contained in Chapter 2 and the employers' qualitative responses described earlier in this chapter, bear testimony to such other dimensions.

The sample size and multivariate non-normal distribution of the data were reported in the previous section which presented the SEM 1 (CFA) model, and remained the same for the SEM 2 model. Because this study involved exploratory research, all the variables were retained. In the SEM 2 model, the df was positive (df = 72) and the chi-square test was significant ($\chi^2 = 189.249$; p

< .000). The parameter to sample size ratio was 1:9. The SEM 2 model generated weaker fit indices than the SEM 1 (CFA) model: (GFI = .920; RMSEA = .074; TLI = .870; CFI = .897); and the model was recursive. For exploratory research purposes, the SEM 2 model was identified.

iii SEM 2 standardised path diagram

The SEM 2 unstandardised path diagram and the table containing the unstandardised regression weights are illustrated in Figure 2FE and Table 3E in Appendix E, respectively.

The SEM 2 standardised path diagram is illustrated in Figure 6.40 below.

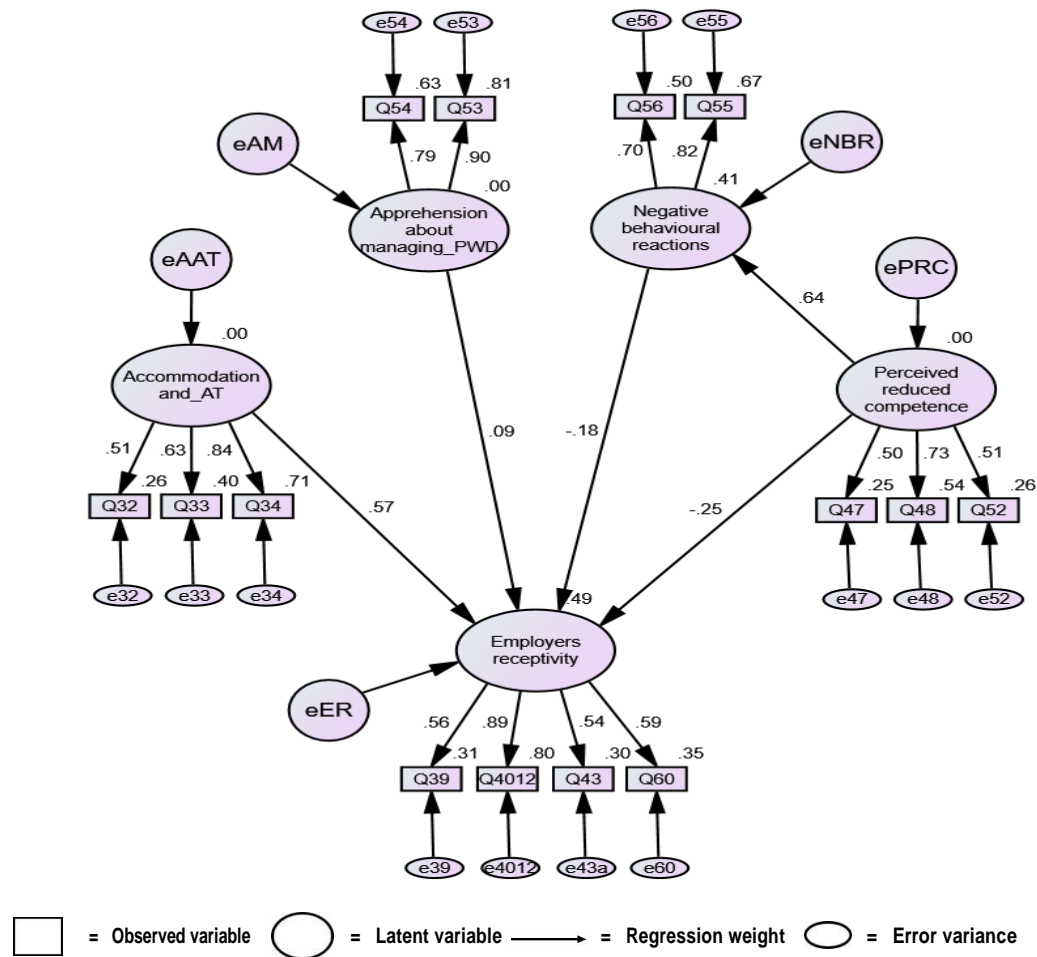


Figure 6.40 SEM 2 standardised path diagram

Employer's receptivity was the "dependent" variable in the SEM 2 model. The arrows in the SEM 2 path diagram represent free parameters which refer to a structural relationship between exogenous and endogenous constructs estimated by the SEM computer software program (Hair et al., 2006). The description of each of the latent constructs was provided in a preceding section that explained the EFA conducted in this study. This model had a multiple-indicator approach and each measure was a separate indicator of the same underlying construct, which assumes convergent validity (Kline, 2011). The indicators, tested with SEM 1 (CFA), formed the measurement model, while the latent variables (constructs) formed the structural model. Associations between variables should ideally possess a value of .50 and higher (Hair et al., 2006). The standardised SEM 2 path diagram reflected seven factor loadings that met the .70 rule, while seven met the acceptable cut-off of 0.50 (Hair et al., 2006). Indirect effects may occur (Boomsma, 2000), as was the case in this model pertaining to the construct "perceived reduced competence". None of the parameters in the SEM 2 model were fixed (Boomsma, 2000).

iv Properties of the SEM 2 model

The SEM 2 model was recursive in that paths only occurred between the constructs from the predictor construct to the outcome construct (Hair et al., 2006).

Sample size = 295

The model contained the following variables:

Observed, endogenous variables (indicators/items): Q34, Q33, Q32, Q56, Q55, Q54, Q53, Q52, Q48, Q47, Q43, Q40/1/2, Q39, Q60

Unobserved, endogenous variables:

Accommodation and AT

Negative behavioural reactions

Apprehension about managing PWD

Perceived reduced competence

Employer's receptivity

Unobserved, exogenous variables: e34, e33, e32, e56, e55, e54, e53, e52, e48, e47, e43a, e40/1/2, e39, e60, eER (employer's receptivity), eAAT

(accommodation and AT), eNBR (negative behavioural reactions), ePRC (perceived reduced competence) eAM (apprehension about managing PWD).

Number of variables in the model:	38 (all ovals and rectangles)
Number of observed variables:	14 (indicators/items)
Number of unobserved variables:	24 (error variances and constructs)
Number of exogenous variables:	19 (error variances and constructs)
Number of endogenous variables:	19 (indicators/items)
Number of distinct sample moments:	105
Number of distinct (free) parameters to be estimated:	33
Parameter to sample size ratio:	1:9
Chi-square =	189.249
Degrees of freedom (105-33) =	72
Probability level =	.000

In the case of the SEM 2 model, the chi-square was significantly larger than 0, probably because of the relatively large sample (Hair et al., 2006) and therefore of high precision. To counter this result, several fit indices were applied as indicated in Table 6.60. The SEM 2 model was recursive and therefore identified (Kline, 2011).

v Maximum likelihood estimates (MLE)

As stated previously, the assumption of multivariate normality required by MLE is countered by a sample larger than 200 cases (Hair et al., 2006). In the SEM 2 model, the distribution of the items deviated significantly from normality, but the model was tested in an exploratory context with a sample size of 295 cases, which is acceptable (Hair et al., 2006).

vi SEM 2 tabulation of results

The results of the standardised regression weights are indicated in Table 6.57 below.

Table 6.57

SEM 2: Standardised regression weights

Latent constructs and observed variables			Estimate
Negative behavioural reactions	<---	Perceived reduced competence	.642
Employer's receptivity	<---	Perceived reduced competence	-.251
Employer's receptivity	<---	Negative behavioural reactions	-.177
Employer's receptivity	<---	Accommodation and AT	.574
Employer's receptivity	<---	Apprehension about managing PWD	.092
Q34	<---	Accommodation and AT	.840
Q33	<---	Accommodation and AT	.631
Q32	<---	Accommodation and AT	.509
Q56	<---	Negative behavioural reactions	.704
Q55	<---	Negative behavioural reactions	.819
Q54	<---	Apprehension about managing PWD	.795
Q53	<---	Apprehension about managing PWD	.902
Q52	<---	Perceived reduced competence	.506
Q48	<---	Perceived reduced competence	.733
Q47	<---	Perceived reduced competence	.497
Q43	<---	Employer's receptivity	.544
Q40/1/2	<---	Employer's receptivity	.893
Q39	<---	Employer's receptivity	.558
Q60	<---	Employer's receptivity	.592

In this model, the majority of estimates were significantly different from zero, suggesting a significant impact of the constructs on the model. All the variables were retained on theoretical grounds, including that of supervisors' apprehension about managing persons with disabilities. Also, model trimming was not conducted because the SEM 2 model served as a precursor to the SEM 3 model. Thus, paths were not dropped (Kenny, 2011). In the SEM 2 model, after rounding off the factor loading (standardised regression weight) for item Q47, all the factor loadings of the indicators met and exceeded .50 (Kerlinger & Lee, 2000).

The results of the variances found are provided in Table 6.58 below.

Table 6. 58

SEM 2: Variances

Error variances	Estimate	S.E.	C.R.	P
ePRC	.218	.058	3.798	< .0001
eAAT	.198	.048	4.103	< .0001
eNBR	.235	.050	4.661	< .0001
eAM	.670	.355	1.886	.059
eER	.202	.046	4.365	< .0001
e34	.373	.090	4.155	< .0001
e33	.747	.079	9.429	< .0001
e32	.567	.052	10.865	< .0001
e56	.406	.057	7.142	< .0001
e55	.341	.085	4.028	< .0001
e54	.391	.347	1.126	.260
e53	.200	.450	.445	.656
e52	.635	.062	10.247	< .0001
e48	.595	.102	5.858	< .0001
e47	1.225	.119	10.336	< .0001
e43a	1.193	.107	11.139	< .0001
e40/1/2	.159	.042	3.842	< .0001
e39	.872	.079	11.051	< .0001
e60	.765	.071	10.807	<.0001

SE = standard error CR = critical ratio P = probability

In the SEM 2 model, the majority of variances found were highly significant. Variance was described in the previous section.

The results of the squared multiple correlations are contained in Table 6.59 below.

Table 6.59

SEM 2: Squared multiple correlations (SMC)

Constructs and observed variables	Estimate	VE
Perceived reduced competence	.000	
Apprehension about managing PWD	.000	
Negative behavioural reactions	.412	
Accommodation and AT	.000	
Employer's receptivity	.489	
Q60	.350	
Q39	.311	
Q40/1/2	.797	
Q43	.296	.44
Q47	.247	
Q48	.537	
Q52	.256	.35
Q53	.813	
Q54	.631	.72
Q55	.671	
Q56	.496	.58
Q32	.259	
Q33	.398	
Q34	.705	.45

VE = variance extracted

Only two of the VE values exceeded .50, suggesting adequate convergence in those cases (Hair et al., 2006). In the case of the remaining items, there was more error variance in the item than variance explained by the relevant latent factor. Several item values were smaller than the applicable VE, implying that their latent factors (constructs) did not explain their variance adequately and discriminant validity was therefore insufficient. However, all the variables were retained on theoretical grounds and because of the exploratory nature of this study.

vii Model fit indices

In this study, the SEM 2 model produced the model fit indices illustrated in Table 6.60 below.

Table 6.60

Model fit indices attained

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	33	189.249	72	.000	2.628
Saturated model	105	.000	0		
Independence model	14	1227.537	91	.000	13.489

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.116	.920	.883	.631
Saturated model	.000	1.000		
Independence model	.263	.540	.469	.468

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.074	.062	.087	.001
Independence model	.206	.196	.216	.000

Parsimony-adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.791	.669	.710
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Incremental Indices

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.846	.805	.899	.870	.897
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

viii Interpretation

The computer software program generated a number of fit indices, but not all of them were considered in this study. Although the fit indices generated by the SEM 2 model were less favourable than those that emanated from the SEM 1 (CFA) model, the model was identified because it was recursive and unique estimates could be derived for every model parameter (Kline, 2011). The SEM 2 model served as a precursor to the SEM 3 model.

As in the case of the SEM 1 (CFA) model, constructs have a presumed causal effect on their indicators, illustrated in a path diagram by single arrowheads which represent pathways. The indicators are endogenous variables and the constructs are exogenous variables, as described in Chapter 5 (Kline, 2011). The description of the constructs as presented in the SEM 1 (CFA) model remained the same in the SEM 2 model, while there were insignificant changes in the factor loadings between the constructs and their indicators. The regression weights were smaller in the SEM 2 model than in the SEM 1 (CFA) model. In the SEM 2 model, the construct named employer's receptivity was chosen as the "dependent" variable, with single-headed pathways stretching from all the other constructs to this one. An indirect effect (Boomsma, 2000) occurred between perceived reduced competence and negative behavioural reactions. At the core of this study lay the exploration of causes of exclusion of persons with physical disabilities from employment, of which a significant component comprised the willingness of an employer to hire a member of this group, as contained in the theory presented in theme 1, earlier in this chapter.

As was the case in the SEM 1 (CFA) model, in the SEM 2 model, a strong positive relationship was identified between the construct named accommodation and AT and that of employer's receptivity, as well as between perceived reduced competence and negative behavioural reactions, the latter involving co-workers. Weak relationships were discerned between employer's receptivity and the constructs named apprehension about managing PWD, negative behavioural reactions and perceived reduced competence. These findings were unexpected, since stronger negative relationships would have been expected between employer's receptivity and each of these constructs, when cognisance is taken of the theory alluded to in themes 1 to 5, presented earlier in this chapter.

The findings generated by the SEM 2 model, suggest that accommodation and assistive technology has a strong association with employer's receptivity to hiring persons with disabilities. An employer would need to be informed about the types of accommodation and/or assistive devices required by a person with a particular disability, while the applicable cost would be a consideration. Although the majority of respondents in the employer sample disagreed, around one third felt that such cost would prevent their organisation from employing a person with a disability, as conveyed in theme 3 and illustrated in Table 6.27.

For exploratory purposes, the researcher could proceed with the development of a general structural model (SEM 3).

c SEM 3 (General structural model)

This final phase consisted of a general structural model. Following EFA, SEM 1 (CFA) and SEM 2, it seemed worthwhile to explore even further and develop a general structural model with the constructs identified thus far, in order to corroborate the constructs that are associated with an employer's receptivity to employing persons with physical disabilities.

i SEM 3 procedure

In the analysis of the data for SEM 3, items Q53 and Q54 were discarded owing to low squared multiple correlations (SMC). Hence, the whole construct of “apprehension about managing PWD” was removed from the SEM 3 model. The other four constructs were retained, namely accommodation and AT, negative behavioural reactions, perceived reduced competence and employer’s receptivity, the latter treated as a “dependent” variable. In the case of future policy formulation to promote the inclusion of persons with disabilities in the labour market, all the constructs should be retained to serve as a point of departure, when cognisance is taken of the theory, as expounded on in Chapter 2. The theory pertaining to the SEM 3 model was the same as that applicable to the SEM 2 model, as presented in the previous section. Again, IBM SPSS Amos Version 24 was used for data analysis.

ii SEM 3 results

Naturally, the indicators (items) could also measure elements external to the model, since aspects other than those measured might influence employers’ receptivity to employing persons with physical disabilities. The theory contained in Chapter 2 and the employers’ qualitative responses described earlier in this chapter, bear testimony to such other dimensions.

The sample size and multivariate non-normal distribution of the data were reported in the sections which presented the SEM 1 (CFA) and SEM 2 models and remained the same for the SEM 3 model. In the SEM 3 model, the df was positive (df = 50) and the chi-square test was significant ($\chi^2 = 90.498$; $p < .000$). The parameter to sample size ratio was 1:10. The SEM 3 model generated favourable fit indices: (GFI = .950; RMSEA = .052; TLI = .937; CFI = .952); and it was recursive. For exploratory research purposes, the SEM 3 model was identified.

iii SEM 3 standardised path diagram

The SEM 3 unstandardised path diagram and the table containing the unstandardised regression weights are presented in Figure 3FE and Table 4E in Appendix E, respectively.

The SEM 3 standardised path diagram is depicted in Figure 6.41 below.

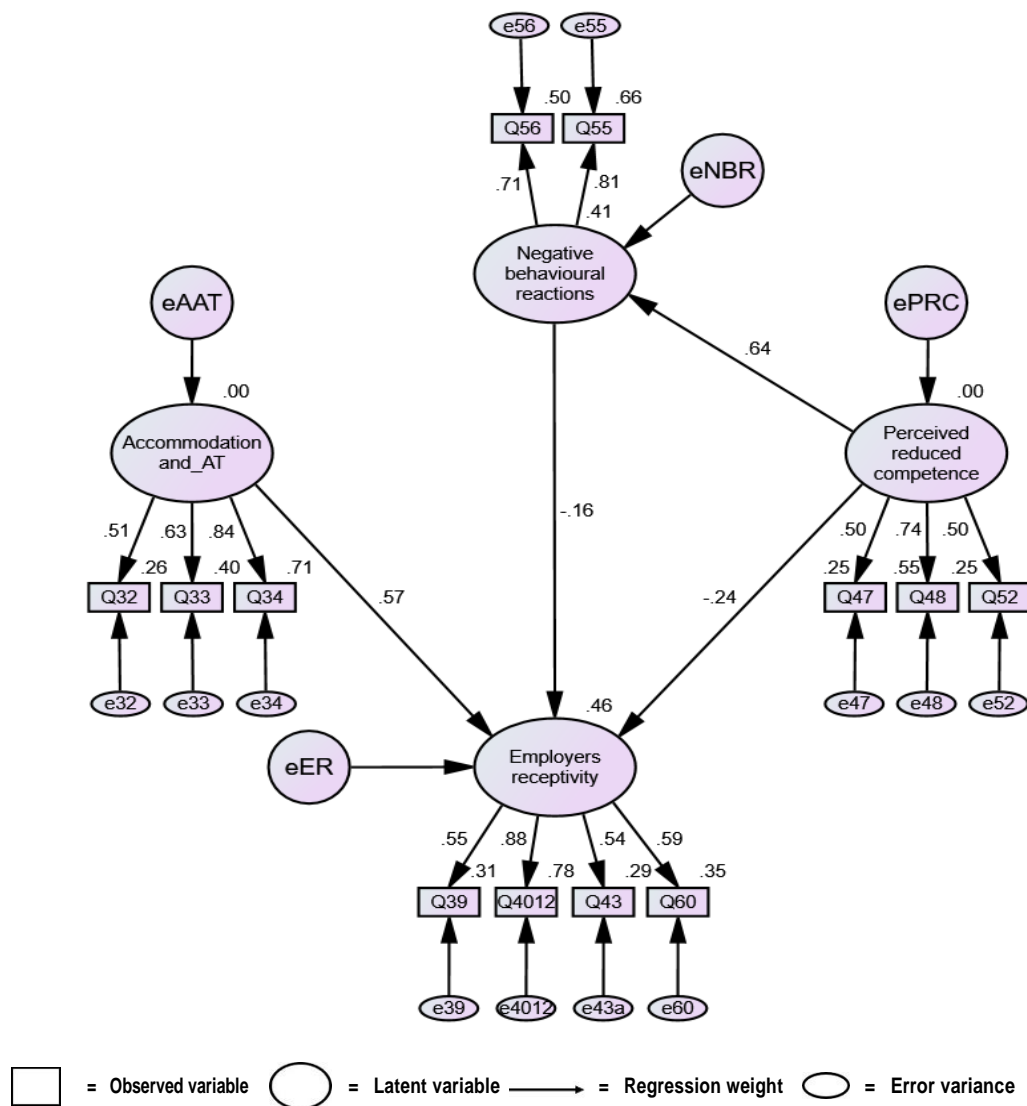


Figure 6.41 SEM 3 standardised path diagram

The description of each of the latent constructs was included in a preceding section that explained the EFA conducted in this study. Employer’s receptivity was the “dependent” variable in the SEM 2 and SEM 3 models. The arrows in

the SEM 3 path diagram represent free parameters, which refer to a structural relationship between exogenous and endogenous constructs estimated by the SEM computer software program (Hair et al. 2006). A multiple-indicator approach transpired in this model and each measure is a separate indicator of the same underlying construct, which, according to Kline (2011), assumes convergent validity. The indicators, tested by means of SEM 1 (CFA), formed the measurement model, while the latent variables (constructs) formed the structural model. Associations between variables should ideally possess a value of .50 and higher (Hair et al., 2006). The standardised SEM 3 path diagram reflected five factor loadings that met the .70 rule, while seven met the acceptable cut-off of .50 (Hair et al., 2006). Indirect effects may occur (Boomsma, 2000), as was the case in this model pertaining to the construct “perceived reduced competence”. In this study, it was not deemed necessary to fix any of the parameters to a specific value, a feature referred to by Boomsma (2000).

iv Properties of the SEM 3 model

The SEM 3 model was recursive, since paths only occurred between the constructs from the predictor construct to the outcome construct (Hair et al., 2006).

Sample size = 295

The model contained the following variables:

Observed, endogenous variables: (indicators/items): Q34, Q33, Q32, Q56, Q55, Q52, Q48, Q47, Q43, Q40/41/42, Q39, Q60

Unobserved, endogenous variables:

Accommodation and AT

Negative behavioural reactions

Perceived reduced competence

Employer’s receptivity

Unobserved, exogenous variables: (e34, e33, e32, e56, e55, e52, e48, e47, e43a, e40/e41/e42, e39, e60, eER (employer’s receptivity), eAAT (accommodation and AT), eNBR (negative behavioural reactions), ePRC (perceived reduced competence)

Number of variables in the model:	32 (all ovals and rectangles)
Number of observed variables:	12 (indicators/items)
Number of unobserved variables:	20 (error variances and constructs)
Number of exogenous variables:	16 (error variances and constructs)
Number of endogenous variables:	16 (indicators/items)
Number of distinct sample moments:	78
Number of distinct (free) parameters to be estimated:	28
Parameter to sample size ratio:	1:10
Chi-square = 90.498	
Degrees of freedom (78-28) = 50	
Probability level = .000	

In the case of the SEM 3 model, the chi-square was significantly larger than 0, probably because of the relatively large sample (Hair et al., 2006) and therefore of high precision. To counter this result, several fit indices were applied as indicated in Table 6.64. The SEM 3 model was recursive and therefore identified (Kline, 2011).

v Maximum likelihood estimates (MLE)

As stated previously, the assumption of multivariate normality, which is required by MLE, is countered by a sample larger than 200 cases (Hair et al., 2006). In the SEM 3 model, the distribution of the items deviated significantly from normality, but the model was tested in an exploratory context with a sample size of 295 cases, which was acceptable (Hair et al., 2006).

vi SEM 3 tabulation of results

The results of the standardised regression weights are illustrated in Table 6.61 below.

Table 6.61

SEM 3: Standardised regression weights

Latent constructs and observed variables			Estimate
Negative behavioural reactions	<---	Perceived reduced competence	.643
Employer's receptivity	<---	Accommodation and AT	.575
Employer's receptivity	<---	Negative behavioural reactions	-.156
Employer's receptivity	<---	Perceived reduced competence	-.244
Q34	<---	Accommodation and AT	.842
Q33	<---	Accommodation and AT	.629
Q32	<---	Accommodation and AT	.509
Q56	<---	Negative behavioural reactions	.709
Q55	<---	Negative behavioural reactions	.814
Q52	<---	Perceived reduced competence	.500
Q48	<---	Perceived reduced competence	.739
Q47	<---	Perceived reduced competence	.496
Q43	<---	Employer's receptivity	.539
Q40/1/2	<---	Employer's receptivity	.882
Q39	<---	Employer's receptivity	.553
Q60	<---	Employer's receptivity	.595

In the SEM 3 model, after rounding off the factor loading (standardised regression weight) for item Q47, all the factor loadings of the indicators met and exceeded .50 (Kerlinger & Lee, 2000). The majority of estimates were significantly different from zero, suggesting a significant impact of the constructs on the model.

The results of the variances found are indicated in Table 6.62 below.

Table 6.62

SEM 3: Variances

Error variances	Estimate	S.E.	C.R.	P
ePRC	.214	.057	3.752	< .0001
eAAT	.198	.048	4.097	< .0001
eNBR	.237	.051	4.639	< .0001
eER	.206	.048	4.328	< .0001
e34	.368	.091	4.045	< .0001

e33	.751	.080	9.433	< .0001
e32	.567	.052	10.859	< .0001
e56	.401	.058	6.966	< .0001
e55	.350	.085	4.124	< .0001
e52	.640	.062	10.304	< .0001
e48	.584	.103	5.675	< .0001
e47	1.228	.119	10.353	< .0001
e43a	1.191	.107	11.090	< .0001
e4012	.171	.042	4.078	< .0001
e39	.870	.079	10.998	< .0001
e60	.752	.070	10.680	< .0001

SE = standard error CR = critical ratio P = probability

In the SEM 3 model, all the variances found were highly significant.

The results of the squared multiple correlations are indicated in Table 6.63 below.

Table 6.63

SEM 3: Squared multiple correlations (SMC)

Constructs and observed variables	Estimate	VE
Perceived Reduced Competence	.000	
Negative Behavioural Reactions	.414	
Accommodation and AT	.000	
Employer's Receptivity	.463	
Q60	.354	
Q39	.306	
Q40/1/2	.778	
Q43	.291	.43
Q47	.246	
Q48	.545	
Q52	.250	.35
Q55	.662	
Q56	.502	.58
Q32	.259	

Constructs and observed variables	Estimate	VE
Q33	.395	
Q34	.709	.45

VE = variance extracted

Only one of the VE values exceeded .50, suggesting adequate convergence in that case (Hair et al., 2006). As far as the remaining items were concerned, there was more error variance in the item than variance explained by the relevant latent factor. Several item values were smaller than the applicable VE, implying that their latent factors (constructs) did not explain their variance adequately and discriminant validity was therefore insufficient. All the variables were retained on theoretical grounds and because of the exploratory nature of this study.

vii Model fit indices

In this study, the SEM 3 model produced the model fit indices illustrated in Table 6.64 below.

Table 6.64

Model fit indices attained

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	28	90.498	50	.000	1.810
Saturated model	78	.000	0		
Independence model	12	914.899	66	.000	13.862

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.076	.950	.923	.609
Saturated model	.000	1.000		
Independence model	.272	.560	.480	.474

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.052	.035	.070	.386
Independence model	.209	.197	.221	.000

Parsimony-adjusted measures

Model	PRATIO	PNFI	PCFI
Default model	.758	.683	.721
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Incremental indices

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.901	.869	.953	.937	.952
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

viii Interpretation

The computer software program generated a number of fit indices, but they were not all considered in this study. The results of the SEM 3 model obtained in this study ostensibly fitted the data adequately, based on the values achieved by the fit indices, and the recursive model was therefore regarded as identified. To a certain extent, the favourable values of the fit indices countered the multivariate non-normal distribution of the data. However, it is acknowledged that non-recursive, alternative and equivalent models would have existed.

As in the case of the SEM 1 (CFA) and SEM 2 models, constructs have a presumed causal effect on their indicators, illustrated in a path diagram by single arrowheads which represent pathways. The indicators are endogenous variables and the constructs are exogenous variables, as described in Chapter 5 (Kline, 2011). The description of the constructs as presented in the SEM 1

(CFA) model remained the same in the SEM 2 and SEM 3 models, except that in the case of the latter, the construct named apprehension about managing PWD (persons with disabilities) was discarded owing to low squared multiple correlations (SMC). Insignificant changes occurred in respect of the factor loadings between the constructs and their indicators. Two of the four regression weights were slightly smaller in the SEM 3 model than in the SEM 2 model; namely between negative behavioural reactions and employer's receptivity and between perceived reduced competence and employer's receptivity. In the SEM 3 model, the construct named employer's receptivity again acted as the "dependent" variable, with single-headed pathways stretching from all the other constructs to this one. The indirect effect (Boomsma, 2000) remained between perceived reduced competence and negative behavioural reactions. Disregarding the construct named apprehension about managing PWD (persons with disabilities), the findings generated by the SEM 3 model are the same as those of the SEM 2 model.

A long list of causes of exclusion of persons with physical (and other) disabilities from employment, based on the extant literature, was described in Chapters 2 and 3, as well as in themes 1 to 10 presented earlier in this chapter. The contribution of the SEM models entails their culmination in a few latent constructs which are associated with and provide clarity about employers' receptivity to employing persons with disabilities. These constructs condense the data and signify the essence of their exclusion from the workplace, in line with research aim 3, namely to uncover the constructs which underlie the causes of exclusion of persons with physical disabilities from employment. Rather than wade into all of the possible causes of exclusion of persons with disabilities from employment, the latent constructs identified provide a point of departure for change through action, prioritising interventions and policy formulation in order to remove the barriers to their employment.

The implications of these findings are imparted in section 6.4 and meta-inferences (Venkatesh et al., 2013) are conveyed in Chapter 7.

6.3.11 Theme 11: Interventions to facilitate the employment of persons with physical disabilities

Mechanisms to promote workplace inclusion of persons with disabilities, as contained in relevant policy frameworks as well as in the extant literature, were presented in Chapter 4. Article 27 of the CRPD (2006) sets the tone for governments and organisations to adopt policies that stimulate the employment of persons with disabilities (Cole, 2013). In this section, interventions proposed by the sample of employers and those emanating from disability advocacy organisations and associated groups, who represent persons with disabilities, are discussed. Suggestions made by the sample of persons with physical disabilities centred around the skills and accommodation they felt they required, as described in themes 2 and 3 earlier in this chapter. In her study, Naami (2015) ascertained that persons with disabilities considered possible interventions to address their employment needs as further education; creation of public awareness about their abilities; accommodation and assistive technology; accessible environments; and start-up capital for potential entrepreneurs.

6.3.11.1 Employers

a Diversity and disability policies

According to Hyland and Rutigliano (2013), while most companies have diversity policies and programmes, few have disability-specific policies or programmes, yet the latter would create awareness and ensure inclusion of persons with disabilities in the organisation.

In respect of whether the organisation has a diversity policy in place, more than three quarters (76.2%, n=259) of the respondents indicated that their organisation had a diversity policy in place, as illustrated in Table 35D in Appendix D. Table 6.65 below demonstrates whether the organisation has a specific disability policy in place.

Table 6.65

The organisation has a specific disability policy in place

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	140	40.9	41.3	41.3
No	199	58.2	58.7	100.0
Total	339	99.1	100.0	
Missing	3	.9		
Total	342	100.0		

Slightly more than one third (41.3%, n=140) of the respondents indicated that their organisation had a specific disability policy in place.

b Disability employment equity targets

In South Africa, the employment equity target of 2% (RSA, 2006) of staff complement to comprise persons with disabilities, has not yet been met, as reflected in the Annual Reports of the Commission for Employment Equity, including the most recent publication referred to in Chapter 1 (RSA, 2019). It was established whether employers in the sample had specific targets in place for the employment of persons with disabilities. Figure 6.42 below depicts whether the organisation has specific targets for the employment equity of persons with disabilities.

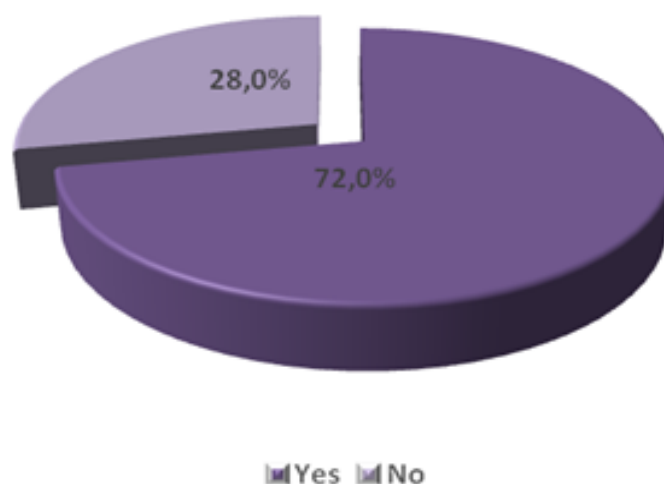


Figure 6.42 The organisation has specific targets for the employment equity of persons with disabilities

Almost three quarters (72.0%) of the respondents indicated that their organisation had a specific target in place for the employment of persons with disabilities. Penalties for non-compliance with employment equity targets included loss of incentive bonuses of managers.

c Accountability for disability employment equity targets

In the South African context, Gida and Ortlepp (2007) inferred from their study that managers who acknowledge the importance of employing persons with disabilities are generally supportive but not necessarily actively involved and the human resources department (HR) is then tasked with the implementation process. It appeared that line managers only take an interest in the inclusion of persons with disabilities in the workplace when specific targets form part of their performance rewards. In some instances, targets are set, but there is no monitoring of the achievement of these and no penalties for non-compliance. In this study, the incumbents who impel disability employment targets were identified by the sample of employers. Figure 6.43 below demonstrates which incumbents drive the disability employment equity targets.

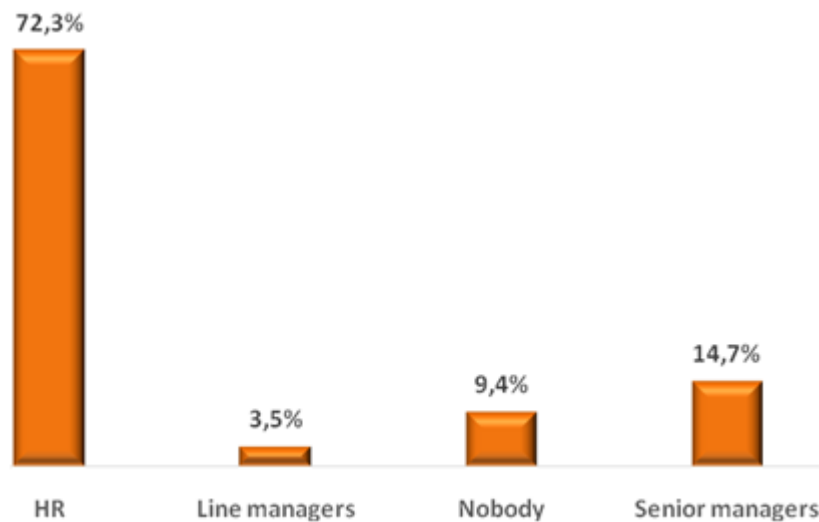


Figure 6.43 Incumbents who drive disability employment equity targets

The disability employment equity targets were driven most often by HR staff (72.3%), followed by senior managers (14.7%).

d Training in disability matters

Training is regarded as an intervention but also resorts under theme 5, since employers indicated a lack of knowledge about disability matters (e.g. disability management, discipline, legal aspects, sensitivity training, accommodation, assistive technology, etc.). In a large-scale survey, the Australian Human Rights Commission (2016), found that employers reported deficient knowledge of and confidence on their part about employing and working with persons with disabilities, as well as a lack of training in diversity and inclusion. This limited exposure and experience also applied to co-workers. Table 6.66 below reflects whether or not the organisation provides training in disability matters.

Table 6.66

The organisation provides training in disability matters

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	179	52.3	53.0	53.0
No	159	46.5	47.0	100.0
Total	338	98.8	100.0	
Missing	4	1.2		
Total	342	100.0		

The respondents who indicated that their organisation provided training in disability matters (53.0%, n=179) and those who did not (47.0%, n=159), showed a reasonably equal distribution of the two groups. This aspect was analysed further in section 6.3.9 to determine the impact of industrial sector on this dimension.

e Interventions that could increase the employment rate of persons with disabilities

Organisation-based interventions were described in section 4.6.4 in Chapter 4, namely disability policies (Gida & Ortlepp, 2007), fair recruitment practices (Domzal et al., 2008), financial incentives (Waterhouse et al., 2010), accommodation and assistive technology (Gold et al., 2012), training in disability matters (SAHRC, 2015) and employer partnerships to share expertise (WHO,

2011). Table 6.67 below discloses the proposed actions to motivate organisations to increase the employment rate of persons with disabilities.

Table 6.67

Proposed actions to motivate organisations to increase the employment rate of persons with disabilities: Frequency of themes

Intervention	Frequency	Percent	Valid Percent	Cumulative Percent
Staff training in disability matters/types of disabilities/diversity/understanding/awareness/exposure	54	15.8	25.6	25.6
Access to qualified/experienced PWD - cannot find them/do not apply for jobs	36	10.5	17.1	42.7
Need PWD with skills and/or tertiary qualifications and/or experience	32	9.4	15.2	57.8
Tax incentives/rebates/subsidies for accommodations/SETA grants	19	5.6	9.0	66.8
Performance management targets and incentives for managers	16	4.7	7.6	74.4
Identify jobs specifically aimed at/or suited to PWD	12	3.5	5.7	80.1
Employment of PWD must benefit BBBEE scorecard	11	3.2	5.2	85.3
Identify the risk of employing PWD	8	2.3	3.8	89.1
Employment of PWD as a diversity/inclusive/strategic goal with budget for accommodations	6	1.8	2.8	91.9
Use media and PWD organisations to access PWD	4	1.2	1.9	93.8
Need proof/examples of successful PWD in different environments	3	.9	1.4	95.3
Punitive measures/penalties for not employing PWD	3	.9	1.4	96.7
PWD need to create better awareness about themselves/participate in career fairs	3	.9	1.4	98.1
PWD should declare disability in their resume	1	.3	.5	98.6
Need a regional pool/network of PWD	1	.3	.5	99.1
Appoint PWD in strategic/decision-making roles to effect change and act as role models	1	.3	.5	99.5
Organisation to be viewed as socially responsible/employer of choice	1	.3	.5	100.0
Total	211	61.7	100.0	

Missing	131	38.3
Total	342	100.0

A total of 211 respondents provided suggestions for interventions, in text form, that would motivate their organisation to increase the employment rate of persons with disabilities. The most prevalent interventions proposed by the sample of employers encompassed training in disability matters, which should include the types of disabilities and creation of awareness; where to locate suitably qualified persons with disabilities; tax incentives and/or subsidies for accommodation costs applicable to persons with disabilities; and targets and incentives for managers to appoint persons with disabilities. A copious amount of text was generated, which was coded and themes derived, as reflected in Table 6.67 above. The findings are supported by the following verbatim quotes:

“The availability of skilled/qualified staff in various areas (technical, admin), possibly higher education (diploma, degree), the availability of skilled disabled people through ‘mainstream’ recruitment channels” (Q65, response 3).

“A better understanding of the different types of disabilities would help. Also, education and desensitisation of how to deal with PWD for all staff, especially in terms of diversity and tolerance. It would also help if there was less of a cost involved in having to customise the workplace” (Q65, response 5).

“Changing the mindset of line managers that reasonable accommodation does not necessarily have to cost a fortune, that people with disabilities are as competent as their able-bodied counterparts and that diversity is essential in the workplace” (Q65, response 37).

“Diversity and inclusion is one of our Key Strategic Focus for 2020 vision. BBBEE codes favours and/or award those companies that employ people with disabilities in terms BBBEE rating. Appoint people with disabilities at the Senior Levels to be the role models. Constant awareness of types of disabilities and the necessity of inclusion” (Q65, response 49).

“I think if the company were given specific targets to achieve and they were penalized for not meeting these targets, it would help companies become more serious about employing people with disability” (Q65, response 80).

“If the employment of PWD would mean ‘business as usual’, i.e., same performance standard, same turnaround time, same productivity, same resources required, it would motivate our organization” (Q65, response 94).

“More diversity training, and specific programs on disability management in order to better understand the needs of persons with disabilities. The building needs more enhancement to cater for PWD” (Q65, response 127).

“More focus on specific recruitment drives to identify and employ people with disabilities. Educating line and vacancy managers on how to accommodate, manage/lead people with disabilities” (Q65, response 129).

“The main challenge is finding qualified and experienced people with disabilities. A professional pool or network for people living with disabilities will help. Appointing PWD in strategic and decision making positions to start change management, change always starts at the top and cascades down. Continued awareness of targets to appoint PWD” (Q65, response 189).

Conversely, a number of respondents opined that their work environment was not conducive to persons with physical disabilities ostensibly irrespective of training and other interventions. These findings are supported by the following verbatim quotes:

“As we are a manufacturing plant, and have presses and the geographical layout of the operations (multi level) does not allow for us to employ disabled people. In addition there are huge risk factors in terms of machinery and equipment, that would increase the risk to all employees, and for those with disabilities even greater. From a wellbeing perspective, we would not undertake such risk and we would increase the risk in terms of loss of life. Not a risk we are willing to carry” (Q65, response 18).

“Difficult to say at this stage of our business. I would propose first being exposed to PWD who is considered an expert in the field (i.e., Stephen Hawking type example) to ensure the perceptions they may have are questioned. In a business where the core business is risk related (even for non-disabled people) it will be a challenge to expect a 180 degree change” (Q65, response 48).

“Our organization is in a difficult working area/environment. Mining is our most important area and people with disabilities will find it difficult working in this environment. Our majority workforce works underground and the employees

that are working in surface jobs usually stay in that job until he/she retires and then what usually happens is that we have already trained someone working for this person to fill the position. So there are hardly surface jobs that become available to be filled by someone with a disability” (Q65, response 163).

f Government-level interventions suggested to increase the employment rate of persons with disabilities

National interventions were described in section 4.6.3 in Chapter 4, inter alia, public policy (Waterhouse et al., 2010), the Strategic Policy Framework on Disability for the Post-school Education and Training System (RSA, 2018a), tax incentives (Fraser et al., 2010) and quotas such as the South African sector-specific employment equity numerical targets (RSA, 2020d). Table 6.68 below depicts the proposed actions on the part of government to increase the employment rate of persons with disabilities.

Table 6.68

Proposed actions on the part of government to increase the employment rate of persons with disabilities

Intervention	Responses		Percent of Cases
	N	Percent	
Tax incentives/rebates/subsidised salaries for PWD employed/subsidies for building alterations	104	41.3	50.0
Grants for meeting targets/PWD training/reduced skills levy	31	12.3	14.9
BBBEE scorecard points for all races of PWD	28	11.1	13.5
Better education and awareness training about disability (e.g., employment equity workshops)	19	7.5	9.1
Better access of PWD to education (min Grade 12) and skills training	17	6.7	8.2
Central or regional database of work-ready PWD	13	5.2	6.3
Funding for learnerships, apprenticeships and internships	10	4.0	4.8
Punitive measures for non-compliance with targets, e.g., fines	6	2.4	2.9
Better monitoring of targets met and reasons for non-compliance (e.g., EE targets)	5	2.0	2.4
State-sponsored training and coaching programmes for PWD, how/where to seek jobs/market themselves	4	1.6	1.9

Improvement of city infrastructure/transportation to enable access to the workplace	4	1.6	1.9
Work-readiness programmes for PWD to work in corporate sector	2	0.8	1.0
Increase in PWD target from 2% - 4%	2	0.8	1.0
Public recognition of best practice employers in Department of Labour annual reports	2	0.8	1.0
Compliance with PWD employment target as condition for submission of government tenders	2	0.8	1.0
Experts in accommodation to advise employers	1	0.4	0.5
Fines for unsafe workplaces to prevent disability	1	0.4	0.5
Partnership between relevant government departments, disability training organisations and employers	1	0.4	0.5
Total	252	100.0	121.2

Since the respondents referred to BBBEE, clarity in this respect is offered. According to S Caffyn-Parsons (Personal communication, May 30, 2017), for generic companies (annual turnover more than R50 million), 2 points are awarded for having 2% of staff complement being disabled. Also 4 points for spending 0.3% of annual payroll on the training of persons with disabilities. Companies turning over between R10 and R50 million annually could score 3 points for spending 0.15% of payroll on the training of black persons with disabilities. Black includes all African, Coloured and Indian South Africans (by birth or descent). To be BBBEE compliant, a company needs at least 40 points to be placed on the scorecard.

A total of 252 respondents submitted their suggestions, in text form, about actions to be taken on the part of government to increase the employment rate of persons with disabilities. A copious amount of text was generated, which was coded and themes derived. As depicted in Table 6.68 above, the most prevalent interventions suggested by the sample of employers entailed economic incentives such as tax rebates, subsidised salaries for PWD and subsidies for building alterations; grants for meeting targets and a reduced skills levy; BBBEE scorecard points for all races of PWD; better education and awareness training about disability; and better access of PWD to education and skills training. The findings are supported by the following verbatim quotes:

“Share upgrade costs. Tax incentives for companies who employ disabled people. Road shows to companies and inspections for compliance. Fines in terms of targets not met or reduced tax refunds/rebates due” (Q67, response 4).

“The availability of claimable grants, tax incentives and support for awareness training and development. A reward system based on BBBEE or similar as has been achieved in some developed nations” (Q67, response 16).

“Employers want skilled and productive employees, an incentive would be if work-readiness programmes are available to prepare PWD for corporate work, as many come from technical or special schools where their literacy and numeracy levels are not up to the expected matric standards. If employers could recruit from such a ‘work ready’ pool, it will encourage them to employ more PWD” (Q67, response 46).

“Get them educated, trained and into the working environment by means of skills development and internships so that they may be able to gain the relevant experience and qualification in order to be employed” (Q67, response 63).

“Government can provide the names, contact details, etc. of all organisations which deal with the disabled. To get personal information of people with disabilities is almost impossible. The same applies when trying to make contact with graduates through universities, colleges, etc. Most refuse to provide information due to the POPI Act prohibitions. This is frustrating and eventually the projects are abandoned as the time and effort do not warrant the end result” (Q67, response 65).

“If government can do a study on the type of occupations where people can be mostly employed (per sector) and then perhaps provide an incentive similar to the skills levy that is paid to employers who employ disabled people to reinvest in their training and growth, employers can then continue with their training, employment and investment” (Q67, response 85).

“More sustainable programmes where they provide grants to employees. Currently they have learnerships in place but most of these never really result in permanent employment or assistance with attaining permanent employment. These candidates are often left to fend for themselves once the programme has been completed. Perhaps also more visibility regarding which programmes are really good and that employers can recruit directly from this point of access

(relevant competencies are then provided which assist the companies in the recruitment process)” (Q67, response 133).

“Public transport is a huge challenge for PWD, this has to improve. It would also help if the government is willing to subsidise companies who have to customise the physical work environment to accommodate PWD” (Q67, response 154).

“Recognise disability irrespective of race and gender in legislation. Currently only non white disability persons are acknowledged in BBBEE legislation” (Q67, response 159).

“No more legislation is needed. Businesses are sick and tired of being over regulated stifling job opportunities from being created because of regulations that only add administrative burdens and add no value. Very practical state-sponsored training and coaching programmes for PWDs in where to look for jobs and how to apply and market themselves as capable equally productive employees that require no more maintenance or hand-holding than other employees, may be more effective. The normal probation period requirements are adequate to assess mutual suitability in any offer of employment” (Q67, response 135).

6.3.11.2 Disability advocacy organisations and associated groups

In this study, the perspectives of advocacy organisations and associated groups were solicited in respect of the plight of persons with disabilities to secure employment, since these institutions are inextricable from persons with disabilities. As alluded to in Chapter 1, three questions were posed to these role players. Two of the disability advocacy organisations responded, namely Disabled People South Africa (DPSA) and the Association for the Physically Disabled. Furthermore, two disability placement agencies responded, namely Progression-Transformation Enablers and I Can! Work Corporate Disability Solutions, while three occupational therapists in private practice responded. Their responses were subjected to thematic content analysis but could not be tabulated owing to the small number of respondents. In order to attach meaning to their proposed interventions, the barriers divulged by them need to be disclosed.

a The barriers to employment of persons with disabilities from the perspective of advocacy organisations and associated groups

i Context of the employer

Pertaining to an employer, the following themes emerged: Inaccessible buildings and cloakrooms; inaccessible transport; cost of accommodation and assistive technology; reluctance to modify job designs, work schedules, working hours and equipment, as well as to provide additional training; lack of knowledge about disability matters in general and to drive the employment of persons with disabilities; lack of commitment from senior management to employ persons with disabilities and therefore a lack of support in the workplace since they are considered cumbersome to employ; the perception that persons with disabilities lack qualifications and/or job competencies; they require additional sick leave; the stigma and stereotypes associated with persons with disabilities; fear of legal action by a person with a disability against the employer to enforce their rights; and disability is viewed as a separate focus and not as part of diversity.

ii Context of persons with disabilities

Relating to persons with disabilities, the following themes emerged: Lack knowledge of accommodation, assistive technology, appropriate legislation and their rights; lack confidence and unsure about how to divulge their disability to an employer; and fear of forfeiting their disability grant when employed. These findings are supported by the following verbatim quotes:

“Many workplaces are not equipped to employ persons with disabilities, especially persons with physical disabilities, due to inaccessibility, no access to buildings, no accessible toilets and also because some employers specify what category of disability they want to employ” (Q1, response 1).

“HR teams such as Recruitment and Business Partners not skilful enough to drive disabled employment within their organisation – do not understand and know legislation and disability processes” (Q1, response 3).

“The notion that an employee with a disability would not be able to perform consistently at work because of the nature and complications of the disability, such as additional sick leave required to recover from complications such as pressure sores, or additional mobility restrictions for a person with an amputation who injures his non-amputated limb” (Q1, response 5).

b Strategies adopted by advocacy organisations and associated groups to facilitate the employment of persons with disabilities

i Disability advocacy organisations

The disability advocacy organisations reported the following approaches: Disability sensitisation workshops are held; internships are awarded to members; and skills development is provided to enable Persons With Disabilities to become entrepreneurs.

ii Disability placement agencies

These service providers divulged the following approaches: Disability employment workshops are held for employers to raise awareness and sensitivity; keynote speeches are conducted at disability conferences and events to promote diversity, inclusion and knowledge of rights; and disability employment needs are aligned with employers’ business processes.

iii Occupational therapists

The occupational therapists indicated that they facilitate the return to work following injury. The finding is supported by the following verbatim quote:

“The functional restrictions and residual capacity are explained to the person in a one-on-one session – the person with a disability. We facilitate return to work by explaining the disability to the employer and assessing the need for accommodation” (Q2, response 6).

c Interventions proposed by advocacy organisations and associated groups to promote the employment of persons with disabilities

The respondents suggested the following plans of action:

i Context of the employer

In respect of the employer, the following themes emerged: Training of employers in disability matters, including reasonable accommodation, sensitivity to disability and the benefits of employing persons with disabilities; training of human resources staff to facilitate the employment of persons with disabilities; and ensuring top management's support of the endeavour.

ii Context of persons with disabilities

In the case of persons with disabilities, the following themes emerged: Skills training and/or improved qualifications; knowledge of their disability, their residual work capacity and long-term complications, in relation to the challenges they might face in the labour market; and joining a disability advocacy organisation for assistance and support.

iii Context of government

On the role of government, the responses of advocacy organisations and associated groups formed the following themes: The need for accessible transportation; the necessity for accessible, comprehensive medical support; and a system of rewards to companies for employing persons with disabilities. These findings are supported by the following verbatim quotes:

“The emphasis on learnerships has impacted negatively on the provision of employment opportunities for people with disabilities. We have a large group of people with disabilities that feel they have nothing to look forward to other than perpetual learnership programs that do not result in permanent employment. Greater rewards for the employment of people with disabilities in permanent

positions need to be made available to ensure the long-term future of those employed” (Q3, response 2).

“Creating sensitivity in the workforce for persons with disability and making employers aware of the benefits of employing persons with disability; lobbying with government and other role players in respect of accessible and sustainable transport” (Q3, response 5).

“Perceptions need to change and this will only happen over time, with serious campaigning, education, advertising, promotional videos depicting persons with disabilities successfully employed, etc. I think the country has come some way in terms of rewarding businesses who have persons with disabilities in their employment. I do not think it helps to force businesses to employ persons with disabilities as part of the equity act. People with disabilities need to belong to organisations who can advocate for them” (Q3, response 7).

The perspectives of respondents who represented disability advocacy organisations, disability placement agencies and occupational therapists, respectively, clearly tallied with the findings of research studies in the literature review, as expounded on in Chapters 2 and 3, as well as with the themes derived from participants’ responses, as discussed earlier in this chapter.

6.3.11.3 Interpretation of theme 11

In interpreting patterns that emerged from the results and findings generated by the data, convergent findings (similarities) and divergent findings (differences) were derived predominantly from the responses to a particular question of the majority of the employers in the sample as well as those of disability advocacy organisations and associated groups.

The results and findings that emanated from theme 11, which depicted interventions to facilitate the employment of persons with physical disabilities, revealed convergent, divergent and unexpected findings. The essence of these, as contained in Tables 6.67 and 6.68, reflect the sample of employers’ suggestions about actions that would motivate organisations to increase their employment rate of persons with disabilities and interventions to be

implemented on the part of government, respectively. The preponderance of these interventions occurred in the theory as expounded on in Chapter 4, as well as in the themes presented in this chapter. However, less commonplace proposals included that the employment of persons with disabilities should benefit BBBEE scorecards; that persons with disabilities need to create better awareness about themselves; and that they should be appointed in strategic positions to effect change and act as role models. Tax incentives for building alterations and/or accommodation was a recurrent theme. The WPRPD (RSA, 2015d) proposes that incentives and reward systems must be devised to promote accessible built environments in accordance with universal design and regulated norms and standards, thus enabling barrier-free spaces and facilities.

In respect of disability policies, Ball et al. (2005) reported that in instances where diversity policy included persons with disabilities, many companies failed to mention a specific commitment to the inclusion of persons with disabilities. A large proportion of the employers in the sample reported having a diversity policy in place, while only slightly more than one third had adopted a specific disability policy. However, almost three quarters had a specific target in place for the employment of persons with disabilities, mostly driven by the HR staff. This finding appears to be unexpected since one would assume a policy on disability employment to go hand-in-hand with such a target, especially to monitor compliance. Brennan et al. (2003) found that businesses with formal disability policies in place tended to maintain more positive attitudes towards persons with disabilities, while those with no such employees as well as no disability policies were inclined to have more negative attitudes towards them.

In the case of South Africa, the equity target that 2% (RSA, 2006) of the staff complement should comprise persons with disabilities, has not been met, as reflected in the Annual Reports of the Commission for Employment Equity, including the most recent publication referred to in Chapter 1 (RSA, 2019). The new Employment Equity Amendment Bill aims to identify sectoral employment equity numerical targets to ensure representation of suitably qualified persons from designated groups in the workplace (RSA, 2020d).

Training in disability matters was a recurrent theme in the literature since employers and able-bodied employees appear to lack knowledge in this regard. This aspect was addressed in theme 5. Paetzold et al. (2008) posited that organisations need to learn how to manage disability, including the accommodation process, and create a culture, through training, that embraces these aspects. Chan et al. (2010) suggested training to cultivate sensitivity and reduce stigma. It emerged that around half of the employers in the sample provided training in disability matters. This was an unexpected finding in the absence of disability policies. To meet the disability employment equity targets, training in disability matters will need to occur across all levels in the organisation, more so once the sectoral numerical targets are implemented, as referred to in Chapter 4.

The interventions proposed by disability advocacy organisations and associated groups aimed to counter the causes of exclusion of persons with disabilities from employment, as described in Chapters 2 and 3. In the main, these suggested that employers should facilitate training in disability matters, including reasonable accommodation, and sensitivity to disability; training of human resources staff to facilitate the employment of persons with disabilities; and top management's support of the endeavour. Persons with disabilities require skills training and/or improved qualifications. The government should address the need for accessible transportation; and devise a system of rewards for private sector organisations for employing persons with disabilities. These findings can be related to research aim 4 of this study, namely to identify interventions to assuage the exclusion of persons with physical disabilities from employment.

The implications of the results and findings are contained in section 6.4, while the associated meta-inferences (Venkatesh et al., 2013) are presented in Chapter 7.

6.4 INTEGRATION AND DISCUSSION OF THE CONVERGENT MIXED METHODS RESEARCH RESULTS AND FINDINGS

6.4.1 Approach to integration and discussion

In the mixed methods research, the quantitative results and qualitative findings culminated in inferences which were combined in order to develop meta-inferences, offering a holistic explanation and an in-depth understanding of the phenomenon being studied (Venkatesh et al., 2013). These meta-inferences are presented in Chapter 7. Complementarity was sought where the findings of the qualitative strand served to enhance the results of the quantitative strand (Onwuegbuzie & Combs, 2010).

In interpreting patterns that emerged from the results and findings, convergent, divergent, unexpected and contradictory findings were sought, derived predominantly from the responses provided by the majority of participants to a particular question. Salient findings are integrated, discussed and linked to the relevant theory as contained in Chapters 2 and 3 as well as in the themes presented earlier in this chapter. Although other researchers referred to in this study, adopted different methods, samples and theoretical perspectives, the goal remained to advance the conceptual expansion of the field of study by clarifying the boundaries of a concept, such as perceptions of disability (Dahlberg, Wittink, & Gallo, 2010).

The results and findings pertaining to this study, hereafter referred to as the findings, are integrated and discussed in relation to each of the stated empirical study research aims.

6.4.2 Research aim 1

To adopt a convergent mixed methods research approach in order to ascertain the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.

The various causes of exclusion of persons with physical disabilities from employment, as derived from both the theory and the responses of participants in this study, were incorporated into the following appropriate themes as presented earlier in this chapter:

Theme 1: Employers' willingness to employ persons with physical disabilities.

Theme 2: Perceived competency level of persons with physical disabilities.

Theme 3: Accommodation and assistive technology.

Theme 4: Negative co-worker reactions.

Theme 5: Apprehension about managing persons with disabilities.

Theme 6: Recruitment and selection of persons with physical disabilities.

Theme 7: Current employment status of persons with disabilities.

Theme 8: Labour relations.

Following identification and description of the causes of exclusion of persons with physical disabilities from employment, interventions are required to facilitate their inclusion in the workplace. Such mechanisms are divulged in Chapter 4 and in theme 11, the former as extrapolated from the extant literature, as well as policy frameworks, and the latter as proposed by the participants in this study.

6.4.2.1 Theme 1: Employers' willingness to employ persons with physical disabilities

a Main findings associated with theme 1

According to the responses to the scaled items, employers in the sample were willing to employ persons with physical, neurological, sensory and psychosocial disabilities in any type of job ("across the board"). However, they were more amenable to physical disabilities than psychosocial ones, which was corroborated by the findings of, inter alia, Ren et al. (2008) and Waterhouse et al. (2010). Conversely, in several instances, employers' text responses to the open-ended questions reflected clear misgivings, as illustrated in Table 6.15 and the accompanying verbatim quotes. It emerged that employers generally lacked knowledge of disability matters, including accommodation, while some perceived persons with disabilities as lacking in competence, productivity, skills

and tolerance for work pressure; considered alterations, accommodation and assistive technology as expensive; viewed persons with disabilities as cumbersome to manage; evaluated the organisation's environment and work processes as unsuited to persons with disabilities; foresaw absenteeism etc. These aspects were corroborated by the theory. A voluminous body of scholarship specifically addressed the lack of knowledge (awareness of, exposure to, contact with and prior experience) as a cause of negative attitudes towards persons with disabilities. This phenomenon culminated in barriers to hiring, managing, accommodating and retaining persons with disabilities, as found by, inter alia, Ali et al. (2011), Barr and Bracchitta (2008), Brennan et al. (2003), Brostrand (2006), Bruyère et al. (2004), Chan et al. (2010), Copeland et al. (2010), Daruwalla and Darcy (2005), Dixon et al. (2003), Goreczny et al. (2011), Hernandez et al. (2004), Hyland and Rutigliano (2013), Kaye et al. (2011), Krahe and Altwasser (2006) and Waterhouse et al. (2010). Safety concerns on the part of employers are expounded on in theme 9.

As depicted in Tables 6.9, 6.10 and 6.11, large proportions of the employers in the sample indicated a willingness to employ persons with physical, neurological and sensory disabilities. However, in contrast, persons with physical disabilities involved in this study found that their job applications had been ignored or rejected for reasons either unknown or related to their disability. In line with the findings of Graham et al. (2014), more than one third of the unemployed persons with physical disabilities had not applied for a job, as illustrated in Figure 6.9. They reported that they wished to work, but their disability, including impaired mobility, was the main reason for them not securing a job.

b Implications of these findings

Higher receptivity to physical versus psychosocial disabilities implies that persons with physical disabilities, overall, have a better chance of employment than those with psychosocial impairments. Theme 1 unveiled discord between the scaled responses and the text responses of employers in the sample. While they were willing to employ persons with different types of disabilities, they fostered reservations about, inter alia, their management, accommodation

needs and level of competence. Knowledge of and exposure to persons with disabilities could improve attitudes towards them. Furthermore, unemployed persons with physical disabilities in the sample did not experience this receptivity from prospective employers in their job-seeking endeavours. This disparity could be ascribed to, *inter alia*, possible social desirability responses and/or a lack of knowledge of and exposure to persons with disabilities and disability matters on the part of employers (Australian Human Rights Commission, 2016; Paetzold et al., 2008) and a lack of self-efficacy of persons with disabilities in seeking employment (Barlow et al., 2008). The latter was covered in theme 6.

c Contribution of these findings

At a theoretical level, in this study, employers' willingness to employ persons with disabilities was investigated by including disability type, namely physical, neurological, sensory and psychosocial disabilities. As presented in Chapter 2, type and severity of disabilities are often not reflected in research contained in the extant literature.

At a methodological level, a convergent mixed methods research approach was adopted to obtain complementarity, involving the perspectives of a sample of formal private sector employers and a sample of employed and unemployed persons with physical disabilities. In theme 1, their viewpoints relating to the willingness of employers to hire persons with physical disabilities were reflected.

At a practical level, interventions to facilitate the employment of persons with physical disabilities, including training of employers and their staff in disability matters, were identified and conveyed in Chapter 4 and in theme 11. Employers could secure the services of disability experts, such as rehabilitation professionals (Chan et al., 2010), to undergo training in disability matters or their in-house training officers could investigate the topic and develop training courses to be presented at all levels of the organisation. Furthermore, service providers who interact with persons with disabilities, such as disability placement agencies, would be well positioned to train members of this group in job-seeking behaviours and skills.

6.4.2.2 Theme 2: Perceived reduced competency level of persons with physical disabilities

a Main findings associated with theme 2

In this study, the majority of employers in the sample disagreed with the perceptions that persons with disabilities often lacked the required skills and work experience; were less productive; were less likely to be developed or promoted; depended more on assistance from colleagues; and needed special treatment such as flexitime, accommodation, less work pressure and so forth. Furthermore, the vast majority of employers reported that their experiences with employing persons with physical disabilities had been positive. These findings contradict the theory. Brennan et al. (2003), Bruyère et al. (2004), Chan et al. (2010), Dixon et al. (2003), Domzal et al. (2008), Fraser et al. (2010), Graffam et al. (2002), Hernandez et al. (2008), Kaye et al. (2011), Louvet (2007), Peck and Kirkbride (2001), Ren et al. (2008) and Waterhouse et al. (2010) found that employers' concerns about the work capacity of persons with disabilities entailed perceived unsatisfactory levels of productivity; lack of skills and experience; adverse impact on team relations and performance outcomes; time-consuming dependence on co-workers and supervisors for support or assistance; absenteeism; the inability to multi-task; and inadequate tolerance for work pressure.

In this study, unemployed persons with physical disabilities divulged the domains in which they required training, suggesting areas of incompetence, while employed persons with physical disabilities indicated several aspects at which they considered themselves competent as well as a variety of skills courses they had attended. The views of employed persons with physical disabilities could thus be aligned with the perceptions of the sample of employers in general, namely that persons with disabilities were deemed competent. Therefore, it could have been expected that they would mostly agree that persons with disabilities should be subjected to the same performance criteria as their able-bodied peers, depending on the type of disability and job content, as well as whether appropriate accommodation has been provided.

Both unemployed and employed persons with physical disabilities encountered adverse work-related experiences of which the main issues entailed difficulty executing their current or prior job owing to their disability and problematic work relations, including intolerance. Several unemployed respondents had been dismissed, including medical boarding, following their injuries and concomitant disability.

b Implications of these findings

Theme 2 unveiled discord between the responses of the majority of employers in the sample and the theory, which covered the perceived competence of persons with disabilities. However, the proportion of employers whose views corresponded with the theory, could be those who raised the concerns, as reflected in Table 6.15 and the concomitant verbatim quotes. Nevertheless, it would appear that, overall, the South African employers in the sample maintained a favourable disposition towards persons with physical disabilities and would be willing to employ those in possession of suitable skills and experience, if able to locate them.

c Contribution of these findings

At a theoretical level, the complex aspect of competence was investigated, since the work capacity of persons with disabilities is a recurrent theme in the extant literature, as contained in Chapter 2. Specifically, the viewpoints of employers in the sample and those of employed persons with physical disabilities needed to be established as they manifest in the South African context.

At a methodological level, the convergent mixed methods research strategy adopted, enabled comparison and contrasting of the viewpoints of employers and those of persons with physical disabilities, especially in respect of perceived competence, a prominent topic in the literature.

At a practical level, interventions to facilitate the employment of persons with physical disabilities, include tertiary and skills training, as conveyed in Chapter

4 and theme 11. Furthermore, the question of locating suitably qualified persons with physical disabilities, addressed in theme 6, will become a pressing need once the sectoral numerical equity employment targets are enforced (RSA, 2020d).

6.4.2.3 Theme 3: Accommodation and assistive technology

a Main findings associated with theme 3

The majority of employers in the sample indicated that their organisation would be willing to make job-related modifications for persons with disabilities such as restructuring or redesigning a job or adopting flexitime. Furthermore, the majority reported that their organisation had accessible premises and had acquired assistive technology and, where not yet the case, they would be willing to implement these measures. However, contrary to the theory, the sample of employers in this study tended to disagree that the perceived cost of accommodation and/or assistive technology would prevent their organisation from employing a person with a disability. Researchers such as Dixon et al. (2003), Domzal et al. (2008), Kaye et al. (2011), Langton and Ramseur (2001), Lengnick-Hall et al. (2005), Peck and Kirkbride (2001), Schur et al. (2005) and Younes (2001), all found in their respective studies that the perceived cost of accommodation and assistive technology created a major concern, enough to deter employers from hiring persons with physical disabilities. An unexpected finding was that many of the employed persons with physical disabilities in the sample had little or no knowledge about accommodation and assistive devices available to aid them.

b Implications of these findings

Theme 3 unveiled discord between the responses of employers in the sample and the theory in respect of the perceived cost of accommodation and assistive technology. Employers in the sample were generally willing to incur reasonable costs to acquire accommodation and assistive technology. However, the emphasis is on reasonable accommodation in terms of expense. According to

the guidelines contained in the TAG, the denial of reasonable accommodation is tantamount to unfair discrimination (RSA, 2017).

c Contribution of these findings

At a theoretical level, accommodation and assistive technology is a topic which occupies a prominent place in the extant literature, as expounded on in Chapter 2. South African employers' receptivity to implementing these measures, including the associated cost, was investigated in this study.

At a methodological level, the convergent mixed methods research strategy adopted, produced the viewpoints of employers in respect of their receptivity to and the perceived cost of reasonable accommodation and assistive technology, while persons with physical disabilities were also questioned about this issue.

At a practical level, two thirds of the employers disagreed that this perceived cost would deter them from employing a person with a disability. However, this leaves one third who would object to such cost. Employers would need to ascertain the actual cost of required accommodation and/or assistive technology. Rehabilitation professionals would determine the nature of accommodation and/or assistive devices required for the specific type of disability of a person. The researcher accepts that a willingness to absorb the cost of accommodation would depend on considerations such as size and type of organisation, available resources, and so forth. According to Smit (2001), the cost of accommodation and/or assistive technology is usually quite low and often only minor adjustments to equipment are needed, such as the height of a desk or a machine.

6.4.2.4 Theme 4: Negative co-worker reactions

a Main findings associated with theme 4

In this study, the vast majority of employers in the sample disagreed with the perceptions that co-workers felt uncomfortable working alongside persons with

disabilities and that they reacted with resentment when rewarded in accordance with the performance of their team. In contrast, according to the theory, a lack of diversity (Spataro, 2005), a lack of exposure to this group (Australian Human Rights Commission, 2016) and stereotyped perceptions of their competency (Lengnick-Hall et al., 2005) culminated in negative attitudes towards persons with disabilities on the part of colleagues. As for employed persons with physical disabilities, the majority indicated that they worked in a team, that they were included in work allocation and decision-making, and they were treated well by their co-workers. In relation to the theory, this would be an unexpected finding. Robert and Harlan (2006) reported that, despite legislation, marginalisation, fictionalisation and harassment still occur in the workplace. Persons with disabilities were devalued and exposed to a hostile work environment with discrimination and unequal career opportunities.

b Implications of these findings

Theme 4 unveiled discord between the responses of the majority of employers in the sample as well as employed persons with physical disabilities, on the one hand, and the theory, on the other. Perhaps the stipulations of the CRPD (2006) and disability-related policies, as conveyed in Chapter 4, have begun to have a positive impact on attitudes towards persons with disabilities.

c Contribution of these findings

At a theoretical level, stereotyped perceptions about the competence of persons with disabilities are plentiful in the extant literature, as revealed in Chapters 2 and 3. These negative attitudes could also be harboured by their co-workers.

At a methodological level, the convergent mixed methods research approach adopted, incorporated, inter alia, the perceptions of employers as well as those of persons with physical disabilities pertaining to behaviour on the part of co-workers.

At a practical level, even where persons with disabilities are treated with respect and fairness, the organisation should still invest in training in disability matters to counter stigma and ensure equal treatment of all employees.

6.4.2.5 Theme 5: Apprehension about managing persons with disabilities

a Main findings associated with theme 5

The majority of employers in the sample agreed that they lacked familiarity with and therefore knowledge of managing the needs of persons with disabilities and, to a lesser extent, that supervisors felt apprehensive about the performance management of persons with disabilities. These findings are corroborated by the theory. Dixon et al. (2003), Hagner and Cooney (2003) and the Kessler Foundation (2010), found that supervisors and managers had limited training relating to managing individuals with disabilities and they felt unprepared to address problems or to implement appropriate accommodation. Paetzold et al. (2008) posited that organisations need to learn how to manage disability, including the accommodation process, through training.

In contrast to the theory, the vast majority of employers in the sample disagreed that their organisation had encountered a negative experience with a person with a disability. However, those respondents who reported a prior negative experience, described incidents that emerged in the theory, especially absenteeism, behavioural/interpersonal problems and incompetent or unproductive work behaviour. Bruyère et al. (2004), Chan et al. (2010), Dixon et al. (2003), Domzal et al. (2008), Fraser et al. (2010), Green and Brooke (2001), Hernandez et al. (2008), Kaye et al. (2011), Louvet (2007), Ren et al. (2008) and Waterhouse et al. (2010) found that employers were concerned about unsatisfactory levels of competency and productivity; different performance and productivity standards for persons with disabilities; the impact on team relations and performance outcomes; their time-consuming dependence on co-workers and supervisors for support or assistance; absenteeism; and difficulty when required to dismiss a poor performer. Despite this apparent apprehension on the part of supervisors, in this study, the majority of employed persons with physical

disabilities reported being treated well by their supervisors. However, those who felt ill-treated, provided reasons relating to health conditions and competence.

b Implications of these findings

As also found in this study, a lack of familiarity with disability matters on the part of employers and supervisors, was a recurrent theme in the theory. However, this lack of knowledge can be rectified with appropriate training, as discussed in theme 11.

c Contribution of these findings

At a theoretical level, a lack of knowledge of and exposure to persons with disabilities culminated in not only negative attitudes towards them, but also in apprehension about managing them, as described in Chapter 2.

At a methodological level, the convergent mixed methods research strategy adopted, enabled a comparison between the viewpoints of participants and the theory. Employers' lack of familiarity with managing the needs of persons with disabilities was corroborated by the theory. Nevertheless, persons with physical disabilities reported being treated well. The construct, apprehension about managing persons with disabilities was discarded in the SEM 3 model.

At a practical level, training in disability matters across all levels in the organisation should serve to ameliorate deficient knowledge of disability matters, as addressed in theme 11.

6.4.2.6 Theme 6: Recruitment and selection of persons with physical disabilities

a Main findings associated with theme 6

Around two thirds of the employers in the sample reported actively recruiting persons with disabilities, while one third did not. Furthermore, only half of these respondents indicated that persons with disabilities responded to job

advertisements in the media. Several respondents opined that skilled, experienced persons with disabilities could not be located. These aspects are corroborated by the theory. Chan et al. (2010) discerned that organisations who were committed to diversity in their workforce were more receptive to employing persons with disabilities. However, reluctance to employ them was influenced by, inter alia, inadequate knowledge of and experience with hiring persons with disabilities. Luecking (2008) stated that discrimination manifests when an employer is disappointed with the performance of an employee with a disability and vows to never again hire someone from that category or group again. It was indicated to Kaye et al. (2011) that they did not apply for jobs.

As expounded on in theme 9, the nature of the industrial sector in which an organisation operates, also plays a role in the recruitment and appointment of persons with physical disabilities. Researchers such as Domzal et al. (2008) and Lengnick-Hall et al. (2005) established that persons with disabilities were more likely to secure employment in certain sectors versus others.

Clear discord emerged in respect of the methods implemented by employers in their recruitment approach and those chosen by persons with physical disabilities to seek employment, resulting in them moving wide of each other in the labour market. Employers use mainly the printed media, internet, specialised employment agencies and disability organisations, while job seekers with disabilities rely on direct applications, friends and family. In this study, around one quarter of the unemployed persons with physical disabilities indicated that they were not seeking employment owing to their disability, which is comparable with the findings of Graham et al. (2014), who reported that almost half of persons with disabilities in their study had no desire to work owing to their disability, health or despondency.

b Implications of these findings

Employers who actively recruited persons with disabilities seemed to find that they did not frequently respond to job advertisements. This finding is not surprising when cognisance is taken of the discordance between the methods

used by each of these parties. It is possible that a contingent of persons with disabilities do not have access to or knowledge of sources of jobs such as the internet and employment agencies that specialise in disability employment. Not locating suitable persons with disabilities for available positions would prevent employers from meeting disability employment targets, more so once the sectoral employment equity numerical targets are implemented (RSA, 2020d).

c Contribution of these findings

At a theoretical level, the particular recruitment practices adopted by employers, such as using the internet, could serve as obstacles to locating suitable persons with disabilities, exacerbated by deficient knowledge of hiring them, as disclosed in Chapter 2.

At a methodological level, the convergent mixed methods research strategy adopted, enabled elucidation of the challenges faced by employers to recruit suitable persons with disabilities, especially since the methods applied by the two parties differ profoundly.

At a practical level, persons with disabilities would need to be made aware of the recruitment methods used by employers and also hone their job-seeking skills in order to secure employment, as described by Barlow et al. (2008). Such skills would include disclosure of accommodation needs and/or required assistive technology during a job interview.

6.4.2.7 Theme 7: Current employment status of persons with disabilities

a Main findings associated with theme 7

The majority of employers in the sample employed persons with disabilities. However, it is acknowledged that response bias could have prevailed, nevertheless, the size of the employer sample was ample, being in excess of 300 (Hair et al., 2006). In general, the extant literature did not disclose disability by type or severity. In this study, the most prevalent disability among the

employees with physical disabilities entailed limping, followed by paraplegia, the latter considered to be an unexpected finding. Another likely unexpected finding was that epilepsy was the most prevalent neurological condition among employees with disabilities. The most prevalent sensory disabilities among employees with disabilities encompassed partial deafness and partial blindness. Less than one quarter of the sample of employers reported having employees with psychosocial disabilities. As reflected in theme 1, employers were more receptive to persons with physical than psychosocial disabilities. Researchers such as Brennan et al. (2003), Brostrand (2006), Dalgin and Bellini (2008), Gouvier et al. (2003) and Ren et al. (2008) found that employers' expectations in respect of employability, ease of accommodation and performance expectations, were more favourable towards persons with physical disabilities as opposed to those with psychological, psychiatric, behavioural or cognitive disabilities.

In this study, it emerged that the majority of employees with disabilities held low-level or specialist/professional positions. This was an expected finding in the context of the theory. Hernandez et al. (2008) reported that in healthcare, hospitality and retail, persons with disabilities mostly held entry-level and semi-skilled roles, such as clerical work, food service and laundry service. Gida and Ortlepp (2007) found that, although the majority of the South African organisations in their study indicated that persons with disabilities occupied positions across the different levels in the organisation, most of them held lower-level jobs, especially administrative positions.

b Implications of these findings

Persons with disabilities remain employed predominantly at the lower hierarchical levels of the organisation and are thus not afforded the opportunity to fill senior and executive roles. This state of affairs could be ascribed to any or all of the obstacles faced by persons with disabilities in the labour market as covered in themes 1 to 5.

c Contribution of these findings

At a theoretical level, the levels of positions occupied by persons with disabilities emerged in the extant literature, rather than the actual job titles held. As imparted in Chapter 2, persons with disabilities were often relegated to lower-level roles in the organisation.

At a methodological level, the convergent mixed methods research approach adopted, incorporated the contributions of both employers and persons with physical disabilities in respect of the current status of the latter.

At a practical level, in this study, both unemployed and employed persons with physical disabilities indicated their most profound life change to be their reduced physical ability and agility. Nevertheless, as expounded on in theme 2, several persons with physical disabilities, unemployed and employed, aspired to be self-employed and/or to improve their qualifications. Both of these could be viable options, given support. Naami (2015) found that persons with disabilities required funding for their enterprises. Education and training are crucial to securing gainful employment (WHO, 2011). Kim and Williams (2012) found that college students and graduates with physical disabilities realised that an advanced degree would enhance their employment opportunities. In a community survey (2016), Statistics South Africa discerned that, although there was an upward trend in persons with disabilities acquiring a higher level of education, the number was still small, despite policies that address their development through education and training.

6.4.2.8 Theme 8: Labour relations

a Main findings associated with theme 8

Almost all of the employers in the sample indicated that their organisation had not been taken to the CCMA for alleged unfair treatment of a person with a disability. Also, the vast majority reported that their trade union agreements did not contain a clause relating to persons with disabilities.

b Implications of these findings

The implication is that employees with disabilities would not enjoy the bargaining power that comes with trade union agreements with regard to their specific needs. Given the increasing emphasis on the right of persons with disabilities to work (CRPD, 2006) and the envisaged sectoral employment equity numerical targets, it can be expected that trade union agreements would need to be amended.

c Contribution of these findings

Trade union agreements would need to be amended in order to remain abreast of disability-related policies and legislation.

6.4.3 Research aim 2

To determine the statistically significant differences that exist between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.

6.4.3.1 Theme 9: Industrial sector comparisons

The industrial sector in which an organisation operates appears to have an effect on an employer's receptivity to employing persons with disabilities. Lengnick-Hall et al. (2005) cited Yellin and Trupin (2000), who found that fast-growing sectors such as professional services and the wholesale/retail trade improved the chances of persons with disabilities retaining their jobs, as opposed to low-growth sectors such as agriculture, mining, construction and manufacturing. Domzal et al. (2008) discerned that service industries were more likely to actively recruit persons with disabilities than manufacturing enterprises. In this study, industrial sectors were compared in respect of certain selected items in the customised survey questionnaire.

a Main findings associated with theme 9

Sector had a highly significant effect on whether the respondents believed their organisation's work processes could be mastered by a person with a physical disability. Those respondents in the financial services/banking/insurance sector generally agreed that their processes could be mastered by a person with a physical disability. To a lesser extent, those in the hospitality/recreation/culture/sport sector, the information technology/communication sector and the supply chain/transport sector all seemed to agree. However, those in the manufacturing (heavy) sector were the least convinced that their organisation's work processes could be mastered by a person with a physical disability. These findings are not unexpected.

Sector had a highly significant effect on whether the organisation had safety concerns about employing a person with a physical disability. Those respondents in the financial services/banking/insurance sector had the least safety concerns as well as those in the information technology/communication sector. However, all the other sectors had safety concerns, albeit in varying degrees, with the strongest apprehension on the part of the mining/quarrying sector. These findings are not unexpected.

Sector had a significant effect on whether the organisation provided training in disability matters. Specifically, those respondents in the construction/property development/property management sector and those in the information technology/communication sector seemed considerably less inclined to provide training in disability matters than those in the other sectors. The reluctance of those in the information technology/communication sector can be regarded as an unexpected finding.

Sector had a significant effect on whether the perceived cost of accommodation and/or assistive technology/devices would prevent the organisation from employing a person with a disability. Those respondents in the supply chain/transport sector indicated the least objection to this perceived cost, although there were only three respondents in this sector. Those in the

manufacturing (light) sector, followed by the manufacturing (heavy) sector and the health services/medical sector generally agreed that these costs would prevent their organisation from employing a person with a disability. However, in none of the sectors more than 50% of the respondents agreed with this perception of cost. These findings are not unexpected.

Sector had a significant effect on whether the respondents believed that employers felt unfamiliar with how to manage the needs of persons with disabilities. Agriculture/forestry/fisheries was the only sector in which less than half of respondents agreed, while those in all other sectors believed that employers felt unfamiliar with how to manage the needs of persons with disabilities. Overall, these findings are not unexpected, taking cognisance of the theory and the responses of the sample of employers, as reported earlier in this chapter.

Had the sample size been larger, a significant result might have transpired in respect of whether the organisation would be willing to restructure or redesign an existing job to accommodate a person with a physical disability. Specifically, those respondents in the financial services/banking/insurance sector as well as those in the manufacturing (heavy) sector, seemed less inclined to restructure or redesign an existing job than those in the other sectors. The stance of the financial services/banking/insurance sector is an unexpected finding, considering the nature of work involved.

Sector had a marginally significant effect on whether the organisation actively recruited persons with disabilities. Only two fifths of the respondents in the construction/property development/property management sector reported that their organisation actively recruited persons with disabilities, which differed significantly from those in the other sectors. This was not an unexpected finding.

b Implications of these findings

In respect of certain dimensions, the nature of the industrial sector in which an organisation operated, had a significant impact on the receptivity of an employer

to hire a person with a physical disability. Rather than enforce a generic target, it would appear more prudent to set disability employment equity targets which are customised to the nature of an organisation, as referred to in the Employment Equity Amendment Bill (RSA, 2020d). However, persons with certain physical disabilities would probably remain excluded from some work environments.

c Contribution of these findings

At a theoretical level, it was deemed crucial to determine the impact of industrial sector on the willingness of an employer to hire a person with a physical disability. As depicted in Chapter 2, the sector under which an organisation resorts, characterises the nature of its technology and work processes.

At a methodological level, this study investigated the impact of sector on employers' receptivity to hiring persons with physical disabilities which contributes to the body of knowledge since, according to Hernandez et al. (2012), given the notable differences between non-profit and for-profit organisations, it was surprising that limited attitudinal research had focused on sectoral differences in employing persons with disabilities.

At a practical level, the significant impact of sector, in respect of the dimensions measured, on employers' receptivity to employing persons with physical disabilities, was not unexpected overall. Only two unexpected findings emerged, namely the reluctance of employers in the information technology/communication sector to provide training in disability matters and the disinclination of respondents in the financial services/banking/insurance sector to restructure or redesign an existing job. Interventions to counter anticipated obstacles to employing persons with physical disabilities are suggested in theme 11 and in Chapter 4.

6.4.4 Research aim 3

To uncover the constructs which underlie the causes of exclusion of persons with physical disabilities from employment.

6.4.4.1 Theme 10: Constructs which underlie the causes of exclusion of persons with physical disabilities from employment

a Main findings associated with theme 10

The EFA that was conducted, produced five components (latent factors) named accommodation and AT (assistive technology), negative behavioural reactions (co-workers), employer's receptivity (hiring persons with physical disabilities), apprehension about managing PWD (persons with disabilities) and perceived reduced competence (persons with disabilities). These latent factors were confirmed with CFA. Three SEM models were developed, incorporating these latent factors as constructs, namely SEM 1 (CFA), SEM 2 (structural model) and SEM 3 (general structural model). In the SEM 3 model, the construct named apprehension about managing PWD was discarded owing to low squared multiple correlations (SMC). The construct named employer's receptivity revealed a dependence relationship (Hair et al., 2006) with the other constructs.

b Implications of these findings

The latent constructs that were identified in the SEM models, particularly SEM 3, are assumed to underlie the main causes of exclusion of persons with physical disabilities from employment, since they are associated with an employer's receptivity to hiring members of this group.

c Contribution of these findings

At a theoretical level, the long list of causes of exclusion of persons with disabilities from employment, as contained in the extant literature presented in Chapter 2, was reduced by means of EFA and SEM to a few latent constructs,

namely employer's receptivity as the "dependent" variable, accommodation and AT, negative behavioural reactions and perceived reduced competence, with the strongest relationships between accommodation and AT and employer's receptivity and between perceived reduced competence and negative behavioural reactions. These latent constructs appear to underpin these causes. At a methodological level, EFA and three SEM models were developed and identified, the latter including CFA, a structural model and a general structural model.

At a practical level, the mass of data was reduced to latent constructs which signify the essence of the causes of exclusion of persons with physical disabilities from the workplace, in line with research aim 3. The latent constructs and their indicators, in effect, enhance understanding of the issues which have a direct bearing on an employer's receptivity to hiring persons with physical disabilities. Rather than attempting to address all of these causes simultaneously, the latent constructs identified provide a point of departure for change through action, prioritising interventions and policy formulation in order to remove the barriers to their employment.

6.4.5 Research aim 4

To identify interventions to assuage the exclusion of persons with physical disabilities from employment.

6.4.5.1 Theme 11: Interventions to facilitate the employment of persons with physical disabilities

a Main findings associated with theme 11

Global, African and South African policy frameworks pertaining to disability, as well as societal, international, national and organisational interventions were described in Chapter 4. In this study, employers in the sample, advocacy organisations, who represent persons with disabilities, and associated groups made suggestions which they felt could increase the employment rate of

persons with disabilities. The contents of Tables 6.67 and 6.68 illustrate the nature of these proposed interventions, several of which correspond with the theory.

b Implications of these findings

Owing to the stipulations of the CRPD (2006) and concomitant initiatives being taken by governments in the form of new and amended disability-related legislation, employers are being placed under increased pressure to employ persons with disabilities. The sectoral employment equity numerical targets proposed in the Employment Equity Amendment Bill (RSA, 2020d) are expected to galvanise this cause. To encourage employers to hire persons with disabilities, interventions would need to be implemented at organisational level in order to meet the targets set, including disability policies, training in disability matters across the board, recruitment practices which target persons with disabilities, incentives for managers to hire them and physical accessibility and/or other accommodation. Furthermore, in the absence of a disability-specific policy, initiatives such as disability employment equity targets, associated management incentives, defined and fair recruitment strategies and drives, as well as general awareness, will probably not materialise.

c Contribution of these findings

At a theoretical level, the SEM models developed in this study, provide a point of departure for prioritising interventions and policies to promote the right to work of persons with disabilities and to remove barriers to their employment.

At a methodological level, employers, disability advocacy organisations and associated groups were requested to identify interventions, both at organisational level and government level, which would escalate the employment rate of persons with disabilities.

At a practical level, organisations can commence with the implementation of the proposed interventions in order to comply with disability employment equity

targets and the spirit of the CRPD (2006). The first step would probably entail training of management and staff in disability matters in order to expand their knowledge and awareness, enhance their receptivity to employing persons with disabilities and counter stereotyped perceptions.

The meta-inferences (Venkatesh et al., 2013) associated with the results and findings are presented in Chapter 7.

6.5 EVALUATION OF HYPOTHESES

In this section, the hypotheses formulated in this study are evaluated against the results and findings that emanated from the convergent mixed methods research pertaining to the purposive samples of formal private sector employers and persons with physical disabilities. Table 6.69 below contains the empirical research aims, hypotheses and appraisal of whether the latter were supported or rejected.

Table 6.69

Summary of research aims, hypotheses and outcomes

Research aims	Hypotheses	Appraisal
RA1: To adopt a convergent mixed methods research approach in order to ascertain the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.	Inapplicable	
RA2: To determine the statistically significant differences that exist between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.	Ha1: There are statistically significant differences between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment.	Supported
	Ho1: There are statistically non-significant differences between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment.	Rejected
RA3: To uncover the constructs which underlie the causes of exclusion of	Ha2: The constructs which underlie the causes of exclusion of persons with physical disabilities from employment can be identified.	Supported

persons with physical disabilities from employment.	Ho2: The constructs which underlie the causes of exclusion of persons with physical disabilities from employment cannot be identified.	Rejected
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RA4: To identify interventions to assuage the exclusion of persons with physical disabilities from employment. Inapplicable

Ha = alternative hypothesis Ho = null hypothesis

The results and findings of the convergent mixed methods research strategy adopted in this study corroborated the research aims and hypotheses formulated.

6.6 CHAPTER SUMMARY

In this chapter, the results of the quantitative strand and the findings of the qualitative strand of the convergent mixed methods research study were presented and interpreted, taking cognisance of convergent and divergent findings, in conjunction with the research aims and the relevant theory. As an extension of the mixed methods research into the causes of exclusion of persons with physical disabilities from employment, industrial sectors were compared and latent constructs sought in separate analyses. The samples involved in the study, namely formal private sector employers and persons with physical disabilities, were described. The perspectives of disability advocacy organisations, disability placement agencies and occupational therapists were imparted, being inextricable from persons with disabilities. All of the dimensions that emanated from the results and findings were conveyed in themes, supported by tables, figures and verbatim quotes of the participants. The chapter concluded with an integration and discussion of the mixed methods research results and findings, followed by an evaluation of whether the research hypotheses were supported or rejected.

The next chapter conveys the conclusions, limitations and recommendations which emanate from the convergent mixed methods research study.

CHAPTER 7

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

In this chapter, conclusions, limitations and recommendations are formulated, based on the results and findings of this convergent mixed methods research study in relation to the research aims, as introduced in Chapter 1.

As an extension of the mixed methods research into the causes of exclusion of persons with physical disabilities from employment, industrial sectors were compared and latent constructs sought in separate analyses.

7.1 INTRODUCTION

The extent to which the aims of the literature review and those of the empirical study were achieved, is conceptualised from the perspective of the mixed methods research conducted. The conclusions drawn are followed by the limitations of the study and recommendations pertaining to the utilisation of the results and findings, as well as suggestions for future research.

7.2 CONCLUSIONS

The general aim of the research was twofold. Firstly, it set out to uncover the causes of exclusion of persons with physical disabilities from employment in the South African open labour market, and secondly, to identify interventions that could assuage this situation.

The achievement of the specific literature aims and empirical aims is evaluated, followed by conclusions pertaining to each of these outcomes.

7.2.1 Conclusions relating to the specific literature aims

This section contains the conclusions drawn in respect of the aims of the literature review as presented in Chapter 1.

7.2.1.1 *Research aim 1*

To conceptualise the causes that culminate in barriers to employment experienced by persons with physical disabilities, as contained in the body of scholarship.

In Chapter 2, the causes of exclusion of persons with physical disabilities from employment were conceptualised, based on the extant literature. The conclusions that were drawn from the literature review encompassed the following:

- (1) The causes of exclusion from employment of persons with disabilities appeared to be universal and originated from negative attitudes and stereotyped perceptions. Particular attention was paid to the sources of these attitudes in the organisational context, which served to identify the variables measured in this study. Chapter 2 revealed the many contributions of numerous researchers from around the world, particularly the USA, Australia, Africa and South Africa, such as Chan et al. (2010), Domzal et al. (2008), Mizunoya and Mitra (2012) and Wigget-Barnard (2013).
- (2) Other factors, not attributable to attitudes or perceptions, such as a lack of transportation, also emerged as barriers, in line with the findings of Seirlis and Swartz (2006) and the research of Hernandez et al. (2007).

In Chapter 3, the challenges encountered by persons with disabilities to secure employment were conceptualised on the basis of the literature review. The role of disability advocacy was also described. The conclusions that were drawn from the literature review encompassed the following:

- (1) Persons with disabilities experience barriers in numerous spheres, including in society at large, education, interpersonal interactions and the workplace, as asserted by, inter alia, Ghore (2016), Hammel et al. (2015), Naami (2015) and Shakespeare et al. (2019).

- (2) Discrimination against persons with disabilities has culminated in the CRPD (2006) and, in South Africa, the WPRPD (RSA, 2015d).
- (3) There are numerous international and South African disability advocacy organisations and associated groups that aim to promote and protect the rights of persons with disabilities. However, it would appear that large numbers of persons with disabilities are not members of disability movements, according to Barnart et al. (2001) and Shakespeare (2014).

Research aim 1 was therefore achieved.

7.2.1.2 Research aim 2

To conceptualise interventions to assuage the barriers to employment experienced by persons with physical disabilities, as derived from the literature.

In Chapter 4, mechanisms to promote workplace inclusion of persons with physical disabilities were conceptualised on the basis of policy frameworks and the extant literature. The conclusions that were drawn from the policy frameworks and the literature review encompassed the following:

- (1) Policy frameworks aimed at improving the plight of persons with disabilities include, inter alia, the CRPD (2006), the Employment Equity Act (RSA, 1998) and the WPRPD (2015d).
- (2) Corrective measures could include societal, international, national and organisational interventions, as well as actions on the part of service providers to improve both attitudes towards persons with disabilities and their employment rate, as proposed by research from around the globe by, inter alia, Barlow et al. (2008), Garcia et al. (2009), Neuman (2013) and the SAHRC (2017).
- (3) The employment rate of persons with disabilities remains low, as asserted by, inter alia, Oosthuizen and Naidoo (2010) and Snyder et al. (2010). Disability employment equity targets have not been met according to the findings of the CEE (RSA, 2019).

Research aim 2 was therefore achieved.

The next section focuses on the extent to which the empirical aims of the study were achieved.

7.2.2 Conclusions relating to the specific empirical aims

This section contains the conclusions drawn in respect of the empirical aims of the study, as presented in Chapter 1.

7.2.2.1 Research aim 1

To adopt a convergent mixed methods research approach in order to ascertain the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.

In Chapter 6, the results and findings of the mixed methods research pertaining to South African formal private sector employers and persons with physical disabilities were reported. A voluminous amount of data was obtained and analysed by statistical means and thematic content analysis. The results and findings of the convergent mixed methods research undertaken in this study, were categorised by theme. The overarching theme relating to the causes of exclusion of persons with physical disabilities from employment encompassed the receptivity of employers to hiring persons with physical disabilities. Eleven themes were derived, namely, Theme 1: Employers' willingness to employ persons with physical disabilities; Theme 2: Perceived competency level of persons with physical disabilities; Theme 3: Accommodation and assistive technology; Theme 4: Negative co-worker reactions; Theme 5: Apprehension about managing persons with disabilities; Theme 6: Recruitment and selection of persons with physical disabilities; Theme 7: Current employment status of persons with disabilities; Theme 8: Labour relations; Theme 9: Industrial sector comparisons; Theme 10: Constructs which underlie the causes of exclusion of persons with physical disabilities from employment; and Theme 11: Interventions to facilitate the employment of persons with physical disabilities. Where applicable, themes were subdivided into the categories of employers,

unemployed persons with physical disabilities and employed persons with physical disabilities.

A convergent mixed methods research strategy was adopted to generate an overall understanding of the research problem by comparing the two databases, namely the quantitative results and the qualitative findings (Creswell & Creswell, 2018). Meta-inferences are the outcome of mixed methods research and comprise theoretical statements emanating from an integration of results and findings of quantitative and qualitative strands, respectively (Venkatesh et al. 2013). Owing to the complexity of the data sources and analyses relating to mixed methods research, both convergent and divergent inferences arise which are of equal importance and together enhance insight into a phenomenon (Teddlie & Tashakkori, 2010). Contradictory findings can lead to a new understanding of the phenomenon being studied (Klassen et al., 2012).

The main findings of this study, their implications and contributions, in conjunction with the relevant theory, were explained in section 6.4 in Chapter 6. The meta-inferences formulated relate to research aim 1 and the results and findings associated with themes 1 to 7.

The meta-inferences that were drawn from the convergent mixed methods research study encompass the following:

- (1) Theme 1 unveiled discord between the scaled responses and the text responses of employers in the sample. While employers were willing to employ persons with different types of disabilities, they fostered reservations about, inter alia, their management, accommodation needs and level of competence. In spite of employers' receptivity to hiring persons with disabilities, the current disability employment equity target of two per cent of staff complement has not been met (RSA, 2019). Unemployed persons with physical disabilities in the sample did not experience this receptivity from prospective employers in their job seeking endeavours. This disparity could be ascribed, inter alia, to possible prejudice (Mostert, 2016) and/or social desirability responses and/or a lack of knowledge of

and exposure to persons with disabilities and disability matters on the part of employers (Paetzold et al., 2008) and a lack of self-efficacy of persons with disabilities in seeking employment (Barlow et al., 2008). Interventions to facilitate the employment of persons with physical disabilities include comprehensive training of employers and their staff in disability matters. Service providers, such as disability placement agencies, would be well positioned to train persons with disabilities in job-seeking behaviours and skills (Barlow et al., 2008) and generic employment skills as described by Merrill (2012).

- (2) The majority of employers in the sample disagreed with the perceptions that persons with disabilities often lacked the required skills and work experience; were less productive; were less likely to be developed or promoted; depended more on assistance from colleagues; and needed special treatment such as flexitime, accommodation, less work pressure, and so forth. These findings contradict the theory. Chan et al. (2010), Domzal et al. (2008), Fraser et al. (2010), Kaye et al. (2011), Waterhouse et al. (2010) and others found that employers' concerns about the work capacity of persons with disabilities entailed perceived unsatisfactory levels of productivity; lack of skills and experience; absenteeism; and so forth. Unemployed persons with physical disabilities divulged the domains in which they required training, suggesting areas of incompetence, while employed persons with physical disabilities indicated several areas in which they considered themselves competent. The views of employed persons with physical disabilities thus converge with the perceptions of the sample of employers in general, namely that persons with disabilities were regarded as competent.

Conversely, both unemployed and employed persons with physical disabilities encountered adverse work-related experiences of which the main issues entailed difficulty executing their current or prior job owing to their disability. Several unemployed respondents had been dismissed, including medical boarding, following their injuries and concomitant disability. Nevertheless, it would appear that, overall, the South African employers in the sample maintained a favourable disposition towards

persons with physical disabilities in contrast to the theory, and would be willing to employ those in possession of suitable skills and experience, if able to locate them. Interventions to enhance the competence and employment of persons with physical disabilities, include tertiary and skills training, as conveyed in Chapter 4 and theme 11. Furthermore, the question of locating suitably qualified persons with physical disabilities, will become a pressing need once the sectoral numerical equity employment targets are enforced.

- (3) The majority of employers in the sample indicated that they would be willing to make job-related modifications for persons with disabilities such as restructuring or redesigning a job or adopting flexitime. Furthermore, they reported that their organisation had accessible premises and had acquired assistive technology and, where this was not yet the case, they would be willing to implement these measures. Contrary to the theory, the sample of employers in this study tended to disagree that the perceived cost of accommodation and/or assistive technology would prevent their organisation from employing a person with a disability. Researchers such as Dixon et al. (2003), Domzal et al. (2008), Kaye et al. (2011), Lengnick-Hall et al. (2005), Schur et al. (2005) and others found that the perceived cost of accommodation and assistive technology could deter employers from hiring persons with physical disabilities. Perhaps South African employers accept accommodation and the associated cost as an unavoidable reality. They would need to ascertain the required accommodation and/or assistive technology, as well as the actual cost.
- (4) The vast majority of employers in the sample disagreed with the perceptions that co-workers felt uncomfortable working alongside persons with disabilities, and that they reacted with resentment when rewarded in accordance with the performance of their team. In contrast, according to the theory, a lack of diversity (Spataro, 2005), a lack of exposure to this group (Australian Human Rights Commission, 2016) and stereotyped perceptions of their competency (Lengnick-Hall et al., 2005) culminated in negative attitudes towards persons with disabilities on the part of colleagues. The majority of employed persons with physical disabilities worked in a team, were included in work allocation and decision-making,

were accepted and treated well by their co-workers. In relation to the theory, this would be a contradictory finding since Robert and Harlan (2006) and others reported that, despite legislation, marginalisation, fictionalisation and harassment still occur in the workplace. Hence, theme 4 unveiled discord between the responses of the majority of employers in the sample as well as employed persons with physical disabilities, on the one hand, and the theory, on the other. Perhaps the stipulations of the CRPD (2006) and domestic disability-related policies as well as employment equity targets have begun to have a positive impact on attitudes towards persons with disabilities. Nevertheless, the organisation should still invest in training in disability matters to counter stigma and ensure equal treatment of all employees.

- (5) The majority of employers in the sample agreed that they lacked familiarity with and therefore knowledge of managing the needs of persons with disabilities and, to a lesser extent, that supervisors felt apprehensive about the performance management of persons with disabilities. These findings are corroborated by the theory. Dixon et al. (2003), the Kessler Foundation (2010) and others found that supervisors and managers had no training relating to managing individuals with disabilities and they felt ill-prepared to address problems or to implement appropriate accommodation. Apprehension about managing persons with disabilities could be ascribed to certain trepidations. Domzal et al. (2008), Fraser et al. (2010), Kaye et al. (2011), Ren et al. (2008), Waterhouse et al. (2010) and others found that employers were concerned about, inter alia, unsatisfactory levels of competency and productivity; different performance and productivity standards for persons with disabilities; their impact on team relations and performance outcomes; their time-consuming dependence on co-workers and supervisors for support or assistance; absenteeism; and difficulty when required to dismiss a poor performer. However, the majority of employed persons with physical disabilities reported being treated well by their supervisors, while those who felt ill-treated, provided reasons relating to health conditions and competence. Training in disability matters across all levels in the organisation should serve to allay fears and ameliorate deficient knowledge of disability matters, as addressed in theme 11.

- (6) Around two thirds of the employers in the sample reported actively recruiting persons with disabilities, while one third did not. However, several respondents opined that skilled, experienced persons with disabilities could not be located. These aspects are corroborated by the theory. Kaye et al. (2011) ascertained that they did not apply for jobs. As expounded on in theme 9, the nature of the industrial sector in which an organisation operates has an impact on an employer's receptivity to recruiting and appointing persons with physical disabilities. Clear discord emerged in respect of the methods implemented by employers in their recruitment approach and those chosen by persons with physical disabilities to seek employment. Employers used mainly the printed media, internet, specialised employment agencies and disability organisations, while job seekers with disabilities relied on direct applications, friends and family. The latter was also found by the HSRC (2006). It is possible that a contingent of persons with disabilities do not have access to or knowledge of sources of jobs such as the internet and employment agencies that specialise in disability employment. Not locating suitable persons with disabilities for available positions would prevent employers from meeting disability employment equity targets, more so once the sectoral employment equity numerical targets are implemented (RSA, 2020d). Persons with disabilities would need to be made aware of the recruitment methods used by employers and also hone their job-seeking skills in order to secure employment, as described by Barlow et al. (2008). Disability advocacy organisations and rehabilitation professionals could take the lead in this respect.
- (7) In this study, employers in the sample disclosed that the most prevalent disability among their employees with physical disabilities entailed limping, followed by paraplegia, the latter considered to be an unexpected finding. Another likely unexpected finding was that epilepsy was the most prevalent neurological condition among employees with disabilities. The most prevalent sensory disabilities among employees with disabilities encompassed partial deafness and partial blindness. Less than one quarter of the sample of employers reported having employees with psychosocial disabilities. The latter finding is corroborated by the theory.

Researchers such as Brostrand (2006), Dalgin and Bellini (2008), Gouvier et al. (2003) and Ren et al. (2008) found that employers' expectations in respect of employability, ease of accommodation and performance expectations, were more favourable towards persons with physical disabilities as opposed to those with psychological, psychiatric, behavioural or cognitive disabilities.

- (8) The majority of employees with disabilities in this study held low-level or specialist/professional positions. The theory corroborates this finding. Hernandez et al. (2008) reported that in healthcare, hospitality and retail, persons with disabilities mostly held entry-level and semi-skilled roles, such as clerical work, food service and laundry service. Gida and Ortlepp (2007) found that, although the majority of the South African organisations in their study indicated that persons with disabilities occupied positions across the different levels in the organisation, most of them held lower-level jobs, especially administrative positions. As also reported by the CEE (RSA, 2019), persons with disabilities remain employed predominantly at the lower hierarchical levels of the organisation and are ostensibly not afforded the opportunity to fill senior and executive roles. In this study, both unemployed and employed persons with physical disabilities indicated their most profound life change to be their reduced physical ability and agility, but several aspired to be self-employed and/or to improve their qualifications. Both of these could be viable options, given support. Naami (2015) found that persons with disabilities required funding for their enterprises. It is possible that they wish to become self-employed entrepreneurs having been unable to secure employment.

The overarching message conveyed entails the existence of clear discord, in respect of several dimensions, between the perceptions of employers, those of persons with physical disabilities and the theory. Employers are receptive to employing persons with different disabilities but conflicted about their management, competence and accommodation. They feel unfamiliar with disability matters and cannot locate suitably qualified candidates. The majority of employers in the sample did not have a specific disability policy in place and therefore no tool to impel appropriate

recruitment practices, disability employment equity appointments and targets. To address this disparity, priority should be assigned to training throughout the organisation in the full spectrum of disability matters and implementation of a specific disability policy to cultivate commitment and receptivity to employing persons with disabilities. Persons with disabilities need training in job-seeking techniques, accommodation and assistive technology applicable to them and skills training to increase their competence, employability and promotability. They also need to take cognisance of the channels available to secure jobs, namely the media and recruitment agencies or disability placement agencies, as well as labour centres. Once employed, persons with disabilities could act as role models which would counter others' negative perceptions and prejudices.

Owing to the stipulations of the CRPD (2006) and concomitant initiatives being taken by governments in the form of new and amended disability-related legislation, employers are being placed under increased pressure to employ persons with disabilities. The sectoral employment equity numerical targets proposed in the Employment Equity Amendment Bill (RSA, 2020d) are expected to galvanise this cause.

Research aim 1 was therefore achieved.

7.2.2.2 Research aim 2

To determine the statistically significant differences that exist between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment in the South African formal sector.

In Chapter 6, the results of the industrial sector comparisons were presented in theme 9. The researcher initially identified 17 items contained in the customised survey questionnaire where statistically significant differences between sectors might have been expected pertaining to the receptivity of an employer to hiring persons with physical disabilities. Based on chi-square tests, seven items produced significant results, ranging from highly significant to marginally

significant differences between industrial sectors. The conclusions that were drawn from the industrial sector comparisons encompassed the following:

- (1) Overall, the results tallied with the literature review that employers in certain sectors, especially manufacturing, construction and mining, would have definite reservations, in terms of the dimensions measured, about employing persons with physical disabilities. These findings correspond to those of, inter alia, Dixon et al. (2003), Lengnick-Hall et al. (2005) and Tshobotlwane (2005) as reflected in Chapter 2 and theme 9.
- (2) There were, however, two unexpected findings. Those respondents in the construction/property development/property management sector and those in the information technology/communication sector seemed considerably less inclined to provide training in disability matters than those in the other sectors. The viewpoint of the construction sector was not a surprise finding, but that of the information technology/communication sector was indeed unexpected. Blanck et al. (2007) emphasised the suitability of jobs in information technology to persons with physical disabilities. Also, respondents in the financial services/banking/insurance sector, as well as those in the heavy manufacturing sector, seemed less inclined to restructure or redesign an existing job to accommodate a person with a physical disability than those in the other sectors. The stance of the financial sector was an unexpected finding, since, in the researcher's psycho-legal experience, the majority of jobs in this sector would have sedentary to light physical demands and therefore suit a person with a physical disability.
- (3) One explanation for smaller than expected differences that were evident between industrial sectors in respect of some dimensions, could be that even construction, mining and heavy manufacturing organisations employ administrative staff in accounting, human resources, purchasing and suchlike, which would be accessible to a person with a physical disability.

Research aim 2 was therefore achieved.

7.2.2.3 *Research aim 3*

To uncover the constructs which underlie the causes of exclusion of persons with physical disabilities from employment.

In Chapter 6, the results of the EFA and three SEM models were presented in theme 10. Five latent factors emanated from the EFA, which were confirmed in the SEM 1 (CFA) model and then further analysed in the SEM 2 and SEM 3 models. Ultimately, the SEM 3 model produced four latent constructs, namely employer's receptivity (the "dependent" variable), accommodation and assistive technology, negative behavioural reactions and perceived reduced competence. The conclusions that were drawn from the SEM models encompassed the following:

- (1) The latent constructs that emerged appeared to underlie the causes of exclusion of persons with physical disabilities from employment. A long list of causes of exclusion of persons with physical (and other) disabilities from employment, based on the extant literature, was described in Chapters 2 and 3, as well as in themes 1 to 10 presented in Chapter 6. The contribution of the SEM models entails their culmination in a few latent constructs which are associated with, provide clarity about and an understanding of issues which have a direct bearing on employers' receptivity to employing persons with disabilities. These constructs condense the mass of data and signify the essence of the causes of exclusion of persons with physical disabilities from the workplace.
- (2) Rather than wade into all of the possible causes of exclusion of persons with disabilities from employment, the latent constructs and their indicators identified provide a point of departure for change through action, prioritising interventions and policy formulation in order to remove the barriers to employment faced by persons with physical disabilities.
- (3) Considering the latent constructs which emerged (employer's receptivity to employing persons with physical disabilities; willingness to implement accommodation and assistive technology; negative behavioural reactions on the part of co-workers; and perceived reduced competence of persons

with disabilities), the first and foremost change agent would be comprehensive training in disability matters across the organisation, since a lack of knowledge of and exposure to members of this group exacerbate negative perceptions about their abilities and attributes, as reflected in the literature.

Research aim 3 was therefore achieved.

7.2.2.4 Research aim 4

To identify interventions to assuage the exclusion of persons with physical disabilities from employment.

In Chapter 6, the interventions suggested by the sample of employers and advocacy and associated groups, are contained in theme 11. The conclusions that were drawn from these contributions encompassed the following:

- (1) At organisational level, the most prominent interventions that were mentioned included training in disability matters, which entailed a number of facets; means of access to suitably qualified and/or experienced persons with disabilities; and performance management targets and incentives for managers relating to the employment of persons with disabilities. A lack of knowledge of, exposure to and contact with persons with disabilities are phenomena widely covered in the literature by, inter alia, Ali et al. (2011), the Australian Human Rights Commission (2016), Maja et al. (2011) and Wigget-Barnard (2013). Performance targets and incentives to employ persons with disabilities were researched by, inter alia, Gida and Ortlepp (2007). Employers would be receptive to ideas and interventions generated from their own ranks, as described in theme 11. Commitment to employing persons with disabilities would be enhanced by specific disability-related organisational policies, as posited by DPSA (2013) and Hyland and Rutigliano (2013).
- (2) For implementation at government level, participants proposed several strategies, the most salient of which entailed tax incentives, tax rebates,

subsidised salaries for employed persons with disabilities and/or subsidies for building alterations; grants for meeting targets or for disability training or a reduced skills levy; BBBEE scorecard points for all races of persons with disabilities; increased awareness and training about disability; and better access for persons with disabilities to education (minimum Grade 12) and skills training. Financial incentives, such as tax rebates, were also identified by, inter alia, Kaye et al. (2011), Waterhouse et al. (2010) and the WPRPD (2015d). It could be surmised that interventions to be enacted by government would emanate from lobbying on the part of all stakeholders in order to culminate in official policies and strategies.

- (3) In respect of unemployed persons with physical disabilities, it is deduced that they need to pursue more effective avenues for locating available jobs rather than placing undue reliance on direct applications, friends and family. Applying directly, likely at random, to organisations, could explain why so many of their job applications were rejected, as reported by the respondents in this study. They appeared to need training in, inter alia, job-seeking skills; declaration of their specific needs such as accommodation or assistive technology (of which the respondents seemed to lack knowledge as reported in theme 3); and skills such as computer expertise. Barlow et al. (2008) explored the lack of self-efficacy of persons with disabilities in their job-seeking endeavours. Transportation to work, especially if the person is severely physically disabled, remains a profound challenge and rests with the authorities to address. This consideration was emphasised by, inter alia, Langton and Ramseur (2001) and the South African Baseline Country Report (2013).
- (4) Employed persons with physical disabilities in this study had also relied on direct applications, friends and family to secure work and underutilised employment agencies. This also implied that they were disinclined to respond to advertised jobs. Access to the internet appears to be a necessity, while employment agencies probably need to become better known and visible. The respondents appeared to lack knowledge of accommodation and assistive technology that could enhance their job performance. Such edification would fall in the domain of occupational therapists. Gold et al. (2012) asserted that persons with disabilities need to

remain abreast of the available assistive technology and found that in some cases, persons with disabilities were fearful of declaring their invisible disabilities for several reasons. In a pilot study undertaken by the South African Department of Social Development (2015) it transpired, inter alia, that some persons with disabilities were unaware of their rights, including the right to reasonable accommodation and assistive technology. A contingent of the respondents experienced problematic relations at work such as being ridiculed, ignored, blamed and threatened, which reiterates the recurring theme that training in disability matters is needed by both persons with and without disabilities to enhance mutual sensitivity and understanding. Baffoe (2013) and Shakespeare et al. (2019) alluded to, inter alia, problematic interpersonal relations between persons with and without disabilities.

Research aim 4 was therefore achieved.

7.2.3 Conclusions relating to the central hypotheses

Emanating from the research problem and questions, the following hypotheses were formulated:

Hypothesis 1: There are statistically significant differences between the various industrial sectors in respect of the causes of exclusion of persons with physical disabilities from employment.

7.2.3.1 Conclusions relating to hypothesis 1

Since the results obtained from the comparison of industrial sectors produced significant differences in respect of five of the dimensions measured, as described in theme 9, this hypothesis was supported. While two unexpected findings emerged, the majority of the results were anticipated and aligned with the literature review, particularly pertaining to the findings of Domzal et al. (2008) and Lengnick-Hall et al. (2005). Naturally, certain sectors would be less amenable to employing persons with physical disabilities, especially with regard

to safety risks and the nature of the organisation's work processes, which might not be mastered by a person with a physical disability.

Hypothesis 2: The constructs which underlie the causes of exclusion of persons with physical disabilities from employment can be identified.

7.2.3.2 Conclusions relating to hypothesis 2

The results obtained in the EFA confirmed by the SEM 1 (CFA), SEM 2 and SEM 3 models, as described in theme 10, warrant support for this hypothesis. The mass of data was reduced to latent constructs which signify the essence of the causes of exclusion of persons with physical disabilities from the workplace. The latent constructs and their indicators, in effect, enhance the understanding of the issues which have a direct bearing on an employer's receptivity to hiring persons with physical disabilities. Rather than attempting to address all of these causes simultaneously, the latent constructs identified provide a point of departure for change through action, prioritising interventions and policy formulation in order to remove the barriers to the employment of persons with physical disabilities.

7.2.4 Conclusions relating to the general research aim

The general aim of the research was twofold. Firstly, it set out to uncover the causes of exclusion of persons with physical disabilities from employment in the South African open labour market, and secondly, to identify interventions that could assuage this situation.

The specific empirical research aims were achieved, as discussed in section 7.2.2. It follows that the general aim was achieved. The causes of exclusion of persons with physical disabilities from employment were ascertained by involving various role players, namely employers, persons with physical disabilities, advocacy organisations and associated groups, allowing for a broad spectrum of ideas to be generated. Furthermore, proposed interventions emerged from the contributions of employers; advocacy organisations, that represent persons with disabilities; disability placement agencies; and

occupational therapists. Many of these suggestions were also evident in the literature review, while several were uniquely applicable to South Africa, as described in theme 11.

7.2.5 Conclusions relating to contributions to the field of industrial and organisational psychology

In this section, conclusions are drawn in respect of the contribution of the literature review and the empirical study to the field of industrial and organisational psychology, particularly in the domain of employment of persons with physical disabilities.

7.2.5.1 Conclusions relating to the contributions of the literature review

- (1) Based on the extant literature cited throughout this thesis, particularly in Chapters 2, 3, 4 and 6, the literature review enabled comprehension of the global plight of persons with disabilities in their quest for employment and the multitude of barriers they tend to encounter in the process. The causes of these barriers and the mechanisms to address them formed the core of this research.
- (2) The literature review facilitated understanding of the construct of disability and the complexities associated with this phenomenon, particularly in the sphere of employment.
- (3) The literature review described concepts, theoretical approaches, models, methodologies and findings emanating from prior research. This knowledge culminated in conceptualisation of the variables relating to disability employment that were measured by means of a customised survey questionnaire distributed to employers, interview schedules administered to persons with physical disabilities and questions submitted to advocacy organisations and associated groups. Furthermore, this knowledge led to the development of three structural equation models that identified the constructs which underlie the causes of exclusion of persons with physical disabilities from employment and could serve as the impetus

to effect change by role players such as industrial psychologists, human resources managers and policy makers.

- (4) The literature review contained certain proposed interventions suggested by researchers from around the world that could enhance the employment rate of persons with disabilities.
- (5) The literature review included existing and anticipated relevant policy frameworks, legislation and conventions.

7.2.5.2 Conclusions relating to the contributions of the empirical study

a Contributions at a theoretical level

- (1) The results and findings of the research should contribute to the existing body of scholarship on disability employment in South Africa, particularly the causes of exclusion of persons with physical disabilities from the workplace and the interventions that could assuage this state of affairs.
- (2) The latent constructs which underlie the exclusion of persons with physical disabilities from employment were derived from EFA and SEM. In effect, causes were sought and latent constructs were found. As indicated in section 7.2.2.3, the latent constructs and their indicators provide an understanding of the aspects which have a direct bearing on employers' receptivity to hiring persons with physical disabilities. The researcher was unable to locate any prior South African studies on disability employment that incorporated SEM beyond CFA.
- (3) Since employers, persons with physical disabilities, advocacy organisations and associated groups were involved, a wealth of perspectives was gained from different role players in respect of the issues covered in this study.
- (4) African studies were incorporated into the literature review of this study.
- (5) This study should contribute to an enhanced, holistic understanding of the employment situation of persons with disabilities.

b Contributions at a methodological level

- (1) Convergent mixed methods research proved to be an effective strategy to determine the width and depth of participants' perspectives in respect of the plight of persons with physical disabilities to secure employment. Convergent and divergent findings emerged, as discussed in Chapter 6. The researcher was unable to locate South African studies on the topic of disability employment where this particular convergent mixed methods strategy was applied. As an extension of the mixed methods research into the causes of exclusion of persons with physical disabilities from employment, industrial sectors were compared and latent constructs sought in separate analyses.
- (2) A valid and reliable instrument was developed in the form of an online customised survey questionnaire distributed to South African private sector employers to glean their perspectives and suggestions pertaining to a broad spectrum of concepts relating to the employment of persons with physical disabilities.
- (3) The structured telephonic interviews conducted with persons with physical disabilities not only allowed their voice to be heard, but also contributed to the convergent and divergent findings explained in Chapter 6.
- (4) The research provided empirical evidence of the causes of exclusion of persons with physical disabilities from the workplace, the reasons for this phenomenon and interventions that would alleviate this challenge in a South African context.
- (5) Where appropriate, verbatim quotes from participants were presented in support of the findings.

c Contributions at a practical level

- (1) The results and findings of the research included not only the perspectives of South African formal private sector employers from different sectors, but also those of persons with physical disabilities, disability advocacy organisations and associated groups, embracing the insights of different stakeholders with uniquely South African views. These offerings could

serve as catalyst for policy frameworks, both at organisational and national level, in order to enhance inclusion and fairness in the workplace in accordance with the CRPD (2006).

- (2) At national level, policy makers could utilise the results and findings to devise strategies that would motivate employers to hire persons with disabilities. In this regard, the latent constructs and their indicators, which emanated from SEM, provide a point of departure. Furthermore, the study generated suggestions that would make persons with disabilities more accessible and marketable, especially in terms of education and skills training.
- (3) At organisational level, industrial and organisational psychologists and/or human resources managers could utilise the results and findings to better understand the many facets of disability, formulate policies with practical guidelines to facilitate and promote the recruitment and employment of persons with disabilities, as well as create awareness through training of managers and employees. Numerous interventions were suggested by employers, as reflected in theme 11.
- (4) The results and findings also identified the different types of disabilities as well as the categories of jobs in which employers would be willing to appoint persons with disabilities.
- (5) At an individual level, the findings could guide persons with disabilities on the type of jobs which they could pursue and the particular skills they should acquire to secure such employment. They could target, inter alia, administrative and information technology careers since such vacancies ostensibly occur frequently. Suitable roles could also include call centre operations and internal sales.
- (6) Disability employment equity targets could be attained if the interventions suggested by the various role players, policy frameworks and extant literature were to be implemented.
- (7) The results and findings of this convergent mixed methods research study would appear to have achieved inference transferability to other formal sector employers and persons with other disabilities. According to Teddlie and Tashakkori (2009), inference transferability is the terminology to be used in mixed methods for the concepts of generalisability and external

validity in quantitative research and transferability in qualitative research. The steps taken by the researcher to ensure trustworthy results and findings were imparted in Chapter 5.

7.3 LIMITATIONS

Limitations pertaining to the literature review and the empirical study are discussed in this section.

7.3.1 Limitations of the literature review

The limitations identified in respect of the literature review entailed the following:

- (1) The type of disabilities involved in research did not emerge clearly from the extant literature. In most instances, generic references were made to disability. A generic approach to a discussion of the nature of work, per se, perhaps disregards the actual job content versus the type of disability. Hence, it might be more edifying if researchers were to dissect both the specific type of disability and its severity in more detail. The symbol of a wheelchair has become synonymous with disability, which obviously constricts the complexity and multifariousness of the phenomenon. The lack of knowledge about disability is fertile ground for stereotypes to be nurtured. In this study, the types of disabilities involved were indicated both by employers and persons with physical disabilities. In several instances, more than one disability applied to a person.
- (2) With regard to accommodation and assistive technology, limited South African research could be found relating specifically to employers' perception of or resistance to the cost of accommodation and/or assistive devices. It is accepted that the willingness to absorb such costs would depend on the size and type of organisation, available resources and so forth. In this study, accommodation, assistive technology and the cost thereof were specifically investigated.
- (3) Safety concerns played a prominent role in the literature review. However, in the researcher's opinion, research that depicts concerns about safety in

the workplace should be related to the nature of the disability involved. From the perspective of physical disability, the implications of an amputated non-dominant upper limb versus a mobility restriction would presumably differ. In this study, safety concerns were specifically addressed, particularly from the perspective of industrial sectors.

- (4) Disability is accepted as part of diversity. It emerged from the literature that diversity management encompasses several concepts, including diversity plans, policies and training programmes. There appears to be a paucity of research that addresses diversity specifically in relation to disability. In this study, the prevalence of disability-specific policies in organisations was ascertained.
- (5) In relation to the image of the organisation when customers encounter employees with disabilities, there is a dearth of research on this topic. Concerns about organisation image through the eyes of customers might be countered by perceptions of social responsibility. In this study, employers were questioned about concerns relating to customer reactions when dealing with a person with a visible disability.
- (6) The researcher could not locate any South African studies addressing the role of trade unions in the employment of persons with disabilities. In this study, employers indicated whether or not their trade union agreements incorporated a clause pertaining to persons with disabilities.

7.3.2 Limitations of the empirical study

The limitations identified in respect of the empirical study involved the following:

- (1) The sample of employers in this study emanated from the formal private sector in South Africa and comprised HR directors, HR managers, HR officers and a number of senior managers. They provided both their own job titles and those relating to persons with disabilities. These job titles relate to those used by PE Corporate Services, as conveyed in Chapter 1. Thus, the standard occupational classification of the Department of Labour was not necessarily applicable.

- (2) The customised survey questionnaire submitted to the sample of employers was subjected to a pilot study, but the interview schedules used in the case of persons with physical disabilities and the three questions posed to advocacy organisations and associated groups were not. The questions contained in all of these instruments were derived from the literature review which focused on the causes of exclusion of persons with physical disabilities from employment and the interventions required to enhance their employment rate. No existing questionnaires could be used for purposes of this study.
- (3) The biographical details of the employer respondents were excluded from the results. The reason for their inclusion in the customised survey questionnaire was to ensure that the respondents were qualified to answer the questions, in particular that they were involved in recruitment. However, the request for such information could have had an impact on their willingness to participate in the survey. (The researcher studied several PhD and master's dissertations where such details of employer respondents were provided).
- (4) The customised survey questionnaire was distributed to a purposive sample of 8 597 South African formal private sector employers of whom 342 completed and returned the questionnaire, resulting in a response rate of 3.98 per cent. It is acknowledged that non-response bias could have prevailed, since employers who had not employed persons with disabilities might have refrained from responding to the survey questionnaire, possibly owing to disinterest or feeling unable to answer several of the questions. In an email communication from A Buys, iFeedback, it was stated that "In our experience, in South Africa, the response rate to online surveys averages 2% to 3%, having dropped substantially over the last few years". Furthermore, the topic could be regarded as sensitive and the questionnaire was lengthy. Conversely, employers who had employed persons with disabilities probably felt more comfortable about answering the questions. In this study, 267 employers indicated that they employed persons with disabilities, while 48 did not. Also, there were 27 participants with missing data, as per theme 10, who could have been employers who did not employ them. However, the sample was still ample (342 employers)

when compared with other doctoral studies on disability where employers were included (e.g. Wigget-Barnard, 2013, had 86 in her sample). In a meta-analysis of response rates, Cook et al. (2000) found that the salience of the issue or topic being surveyed had a larger impact on response rate than advanced notice, follow-up contacts or monetary incentives, while response representativeness is more important than survey response rate. Rogelberg and Stanton (2007) posited that “oversurveying” has exacerbated the problem of decreasing response rates, while there is the implication of non-response by representatives of an organisation when the latter is the sampled unit. In spite of the low response rate, the sample of employers for the SEM analyses amounted to 295 cases following the missing response analysis, and latent constructs could be extracted which appear to underlie the causes of exclusion of persons with physical disabilities from employment.

- (5) Employers who reported positive attitudes and a willingness to employ persons with disabilities might default on the side of action.
- (6) The study included a sample of persons with physical disabilities, although in several cases, they had other disabilities as well. However, severe brain injuries, congenital and illness-related disabilities were excluded.
- (7) In respect of permission being required to approach the sample of persons with physical disabilities, it needs to be divulged that they were adults and their compensation claims had been settled some years before they participated in this research. Following such settlement, their mandate with their attorney expired, which ended any mutual understanding. At the commencement of the structured telephonic interviews, they all provided their telephonic consent to the court interpreter after she had clearly explained the aim of the research, as communicated in section 1.7.7 in Chapter 1.
- (8) Requesting salary information from persons with physical disabilities could have been regarded as an invasion of privacy and was excluded from the results. The reason for the initial inclusion was to ascertain whether they held “low-level” jobs and/or earned lower remuneration as per the literature (researchers sometimes request salary information, see Naami, 2015).

- (9) Results and findings yielded by the study are considered to be transferable to the total populations of employers and persons with disabilities, with caution and within the boundaries of the research.
- (10) Since the research entailed a study of human beings, perfect results were not expected.

7.4 RECOMMENDATIONS

Recommendations that transpired from the results and findings of the convergent mixed methods research, as well as suggestions for future research in the field of disability employment, are conveyed in this section.

7.4.1 Recommendations relating to organisations

Based on the results and findings of this study, conclusions were drawn which could serve as a precursor to strategies that aim to improve the employment rate of persons with physical disabilities. Industrial psychologists or human resources managers and officers would likely be responsible for the recruitment and employment of persons with disabilities and for compliance with employment equity targets, as reflected in theme 11.

- (1) Recognition of the barriers to employment experienced by persons with disabilities would be the first step, followed by adoption of a specific disability policy. Research shows that organisations with disability-specific policies in place are more receptive to hiring persons with disabilities than those without such policies. Embracing inclusiveness in the workplace would promote their recruitment, appointment, equal treatment, participation in decision-making (consultation on their needs), skills training and career development.
- (2) Incentive bonuses awarded to managers for meeting employment equity targets and penalties for non-compliance were suggested in the extant literature and by the sample of employers. To create a climate conducive to the employment of persons with disabilities, incentives would be highly recommended.

- (3) Managers and employees appear to be in dire need of training in disability matters, including knowledge of types of disability, accommodation and assistive technology. Sensitivity training and awareness creation would be crucial to enhance inclusiveness in the organisation, especially in the context of team functioning. Industrial and organisational psychologists and other professionals who operate in the domain of training should develop training courses and other interventions to promote the inclusion of persons with disabilities in the workplace. Such undertakings could incorporate the results and findings of this research, as reported in themes one to eleven in Chapter 6, in conjunction with the relevant theory and guidelines as presented, including those of the SAHRC (2017) and the TAG (2017).
- (4) Job-related modifications and/or job redesign, as described in the literature review and covered in this study, should not cause undue hardship for an employer. Ergonomists and rehabilitation professionals (occupational therapists) could assist employers in this regard.
- (5) Those industrial sectors where scepticism about the prospect of employing persons with physical disabilities emerged, could focus on roles not directly related to their core functions, such as administrative positions, information technology and so forth.
- (6) The results and findings of the convergent mixed methods research identified several interventions suggested by employers to assuage the low employment rate of persons with disabilities. These should be developed since employers would be receptive to ideas generated from their own ranks. In addition, interventions were identified in the literature review, as well as by advocacy organisations and associated groups.
- (7) A concern which transpired that would require attention is the struggle to locate suitable persons with disabilities, as reported by employers. While employers tend to use the media and specialised employment agencies, persons with disabilities appear to rely on direct applications to organisations (which could be random and where no vacancy exists), family and friends. Industrial and organisational psychologists, HR managers, employment agencies and rehabilitation professionals need to put their heads together and design action plans to bridge this divide. Connections are needed between employer forums, employment

agencies, disability advocacy organisations, rehabilitation professionals, government departments and so forth. Advertisements of jobs in the media should also specifically invite persons with disabilities to apply and even specify whether premises are accessible in the event of a wheelchair user qualifying for the job. Employers could also approach tertiary institutions for access to their students and graduates with disabilities and/or become hosts of the practical component of apprenticeships and/or learnerships. While all job seekers might not have access to technology such as the internet, they probably do have access to a cellular telephone and could be reached via social media.

- (8) The envisaged sectoral employment equity numerical targets pertaining to persons with disabilities are expected to place employers under increased pressure to hire these individuals and they should proactively invest in comprehensive training in disability matters as well as enhance physical accessibility to their premises. They should familiarise themselves with the contents of the CRPD (2006) and incorporate these stipulations in their policies.
- (9) Industrial and organisational psychologists and occupational therapists involved in medico-legal work should advise persons involved in personal injury claims, who have sustained disabilities, on the avenues they should follow in order to secure employment.
- (10) Trade unions would need to become involved in matters pertaining to employees with disabilities.

7.4.2 Recommendations relating to government

A number of interventions to promote the inclusion of persons with disabilities in the workplace, to be undertaken by government, were contained in the literature review and also emerged from the results and findings of this study.

- (1) In effect, policy makers would need to contemplate these findings and devise strategies to address the plight of persons with disabilities to secure employment in South Africa. The aim of such policies should be to narrow

the employment gap between persons with disabilities and able-bodied persons, first and foremost through education and skills training.

- (2) Campaigns to create awareness of and sensitivity to disability matters should be posted on social media and also established in schools.
- (3) Moreover, the South African Human Rights Commission (2002) proposed a comprehensive South African Disability Act. Such a piece of legislation would expedite compliance with the Convention on the Rights of Persons with Disabilities (CRPD, 2006).

7.4.3 Recommendations for future research

Flowing from the conclusions and limitations pertaining to this study, recommendations for future research are formulated in this section.

- (1) The development of a comprehensive training course for organisations, which incorporates the many aspects of disability management is recommended.
- (2) The impact of the identified interventions, once implemented, should be evaluated in follow-up research.
- (3) Researchers with a special interest in ergonomics could investigate the feasibility of job-related modifications in different types of organisations.
- (4) This study could be duplicated or researchers could investigate the impact of other disabilities on employability, such as traumatic brain injuries, and expand the body of knowledge on disability employment.

7.5 CHAPTER SUMMARY

In this chapter, conclusions, limitations and recommendations were formulated, based on the results and findings of this convergent mixed methods research study in relation to the research aims, as introduced in Chapter 1. As an extension of the mixed methods research into the causes of exclusion of persons with physical disabilities from employment, industrial sectors were compared and latent constructs sought in separate analyses. The extent to which the aims of the literature review and those of the empirical study were achieved, was

conceptualised from the perspective of the mixed methods research conducted. The conclusions drawn were followed by the limitations of the study and recommendations pertaining to the utilisation of the results and findings, as well as suggestions for future research.

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APPENDIX A: ETHICAL CLEARANCE FROM THE UNIVERSITY



CEMS/IOP RESEARCH ETHICS REVIEW COMMITTEE

Date: 8 December 2014

Ref #: **2014/CEMS/IOP/027**
Name of applicant: Cecile J Nel-Venter
Student #: **4921895**
Staff #: N/A

Dear Cecile J Nel-Venter

Decision: Ethics Approval

Name: Mrs Cecile J Nel-Venter
Address: P.O.Box 3183
Lyttelton South
1760
E-mail: cinel.inc@mweb.co.za
Tel: 012 664 1945/083 250 9790
Supervisor: Prof N Martins **Co-supervisor:** N/A

Proposal: An exploratory study of the dilemma of people with physical disabilities to secure employment in South Africa: Aetiology and interventions.

Qualification: Postgraduate degree/Non-degree output/Commissioned research

Thank you for the application for research ethics clearance by the **CEMS/IOP** Research Ethics Review Committee for the above mentioned research. Final approval is granted.

For full approval: The application was reviewed in compliance with the Unisa Policy on Research Ethics by the CEMS/IOP ethics committee on 4 December 2014.

The proposed research may now commence with the proviso that:

- 1) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
- 2) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the CEMS/IOP Ethics Review Committee. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.



University of South Africa
Pretter Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111; Facsimile: +27 12 429 4150
www.unisa.ac.za

- 1) *The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.*

Note:

The reference number: **2014_CEMS/IOP_027** should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the CEMS/IOP RERC.

Kind regards,



Dr O M Ledimo

Chair: IOP Research Ethics Committee

Department of Industrial and Organisational Psychology

College of Economic and Management Sciences

AJH van der Walt Building,

+27 (0) 12 429 8219



Prof R T Mpefu

Acting : Executive Dean

College of Economic and Management Sciences

AJH van der Walt Building, Room 05-011

Tel: 012 429 4208



APPENDIX B: CUSTOMISED SURVEY QUESTIONNAIRE: EMPLOYERS

Dear Participant (name to be inserted by survey company).

Invitation and Online Survey on Disability and Employment

It is fully acknowledged that you receive many requests to participate in surveys as a professional in your field. Therefore, your participation in this very important survey is sincerely appreciated.

Ms Cecile J Nel, an industrial psychologist in private practice (C J Nel Incorporated, Centurion) invites you, as a private sector employer, to participate voluntarily in a PhD research project that addresses the employment of people with disabilities, physical disabilities in particular.

Attached please find a questionnaire with 67 questions in a multiple choice format, while in some cases you are requested to elaborate briefly. In the last section (E) you are invited to provide your professional opinion on the way forward.

Completion is expected to take approximately 30 minutes. Be assured that your responses will be coded by the survey service provider, kept completely confidential and stored safely for 10 years. There are no risks or costs involved. You may withdraw at any time with no obligations or penalties.

As a token of gratitude for your participation, a condensed report of the research results as well as the online address for access to the study will be e-mailed to you, should you wish to utilise any of the contents in your organisation. Please provide your e-mail address for this purpose.

Consent for use of response data

I, (your initials and surname) with the job title of (your position) at (organisation) hereby provide my consent that the researcher, Ms C J Nel, may use the data collected from this questionnaire for purposes of research in line with her research aims and research questions. Only collated data in an aggregated format will be reported and no reference will be made to individual participants or organisations.

Yes

No

Ethical Clearance Reference Number: 2014_CEMS/IOP_027.

SURVEY OF EMPLOYERS' PERSPECTIVES OF PEOPLE WITH DISABILITIES

A. DEMOGRAPHIC INFORMATION:

Please make a tick (✓) where applicable to indicate your response. In the event that you are not involved in the recruitment and selection of staff, please be so kind as to forward this survey to the appropriate person.

1. Your designation (job title):

HR Director	HR Manager	HR Officer	CEO	COO	Financial Officer	Line Manager
-------------	------------	------------	-----	-----	-------------------	--------------

2. Your ethnic group:

African	Coloured	Indian	Chinese	White	Prefer not to disclose
---------	----------	--------	---------	-------	------------------------

3. Location of company (city/town): _____

4. Sector: (Please indicate on the drop-down menu)

Tick	Type
_____	Agriculture
_____	Automotive Sales & Repair
_____	Cellular Communication
_____	Construction
_____	Electricity/Gas/Water Supply
_____	Financial Services/Banking/Insurance
_____	Forestry/Fishing
_____	Health Services/Medical
_____	Health Services/Personal or Therapeutic
_____	Hospitality
_____	Information Technology
_____	Manufacturing (Electronic/light)
_____	Manufacturing (FMCG)
_____	Manufacturing (Heavy)
_____	Media (Printed/Internet)
_____	Mining/Quarrying
_____	Property Development/Administration
_____	Recreation/Cultural/Sport
_____	Research
_____	Transport of Freight
_____	Transport of Passengers
_____	Warehousing/Distribution
_____	Wholesale/Retail

5. Total number of employees at your location:

01-50	51-200	201-500	501-1000	1001-5000	5001-10000	10001-20000	20001 +
-------	--------	---------	----------	-----------	------------	-------------	---------

6. Your highest qualification:

Grade 12	Certificate	Diploma	Degree	Higher degree
----------	-------------	---------	--------	---------------

7. Your age:

21 – 30	31 – 40	41 – 50	51 – 60	61 - 65
---------	---------	---------	---------	---------

8. Your gender:

Male	Female
------	--------

9. Years in your current job:

1 – 5	6 – 10	11 – 15	16 – 20	21+
-------	--------	---------	---------	-----

10a. Do you personally have a disability?

Yes	No
-----	----

b. Please specify the type: _____

11. Does your company use a job evaluation / grading system?

Yes	No
-----	----

12. Which job evaluation/grading system?

Paterson	Peromnes	HAY	Other	Customised
----------	----------	-----	-------	------------

13. Please tick all the levels that you are responsible for recruiting:

B.	Hourly	Admin/ support	Specialist/ Professiona l	Junior managers / Supervisor s	Middle managers	Senior managers	All
-----------	--------	-------------------	---------------------------------	--	--------------------	--------------------	-----

THE EMPLOYMENT OF PEOPLE WITH DISABILITIES: OVERVIEW

Number or % of workforce:
Male: _____
Female: _____

14. How many employees with disabilities do you have (Impairments acknowledged as visible or invisible disabilities)?

15. If yes, please indicate the type of disability and number of those employed, on the drop-down menu:

- | <u>a. Tick</u> | <u>Physical / mobility restriction</u> | <u>Number</u> |
|----------------|--|---------------|
| _____ | Paraplegia (wheelchair bound) | _____ |
| _____ | Amputated leg | _____ |
| _____ | Amputated arm (dominant arm) | _____ |
| _____ | Amputated arm (non-dominant arm) | _____ |
| _____ | Mobilisation on crutches | _____ |
| _____ | Mobilisation with a walking frame | _____ |
| _____ | Mobilisation with a limp | _____ |
| _____ | Rigid (straight) leg | _____ |

- | | | |
|----------------|------------------------------------|---------------|
| <u>b. Tick</u> | <u>Neurological / nerve damage</u> | <u>Number</u> |
| _____ | Brain injury | _____ |

b.	<u>Tick</u>	<u>Sales / Marketing / Customer service</u>	<u>Number</u>
	_____	Low level	_____
	_____	Specialist/Professional	_____
	_____	Junior management/Supervisors	_____
	_____	Middle-management	_____
	_____	Senior management & Executive	_____
c.	<u>Tick</u>	<u>Production</u>	<u>Number</u>
	_____	Low level	_____
	_____	Specialist/Professional	_____
	_____	Junior management/Supervisors	_____
	_____	Middle-management	_____
	_____	Senior management & Executive	_____
d.	<u>Tick</u>	<u>Supply chain (Warehousing / Logistics / Fleet / Distribution)</u>	<u>Number</u>
	_____	Low level	_____
	_____	Specialist/Professional	_____
	_____	Junior management/Supervisors	_____
	_____	Middle-management	_____
	_____	Senior management & Executive	_____
e.	<u>Tick</u>	<u>Technical / Maintenance</u>	<u>Number</u>
	_____	Low level	_____
	_____	Specialist/Professional	_____
	_____	Junior management/Supervisors	_____
	_____	Middle-management	_____
	_____	Senior management & Executive	_____
f.	<u>Tick</u>	<u>Research & Development</u>	<u>Number</u>
	_____	Low level	_____
	_____	Specialist/Professional	_____
	_____	Junior management/Supervisors	_____
	_____	Middle-management	_____
	_____	Senior management & Executive	_____
g.	<u>Tick</u>	<u>Information Technology</u>	<u>Number</u>
	_____	Low level (e.g. data capturer)	_____

- _____ Specialist/Professional _____
- _____ Junior management/Supervisors _____
- _____ Middle-management _____
- _____ Senior management & Executive _____

18. Have you employed any people with disabilities in the last 12 months?

Yes	No
-----	----

19. In case of an invisible disability – would you expect the person to disclose such during the initial interview?

Yes	No
-----	----

20. During the initial interview, would you expect a person with a disability to indicate what accommodations and/or assistive technology they would need?

Yes	No
-----	----

21. Does your company have a diversity policy?

Yes	No
-----	----

22. Does your company have a specific disability policy?

Yes	No
-----	----

23. If no, would your company be willing to formulate a disability policy?

Yes	No
-----	----

24. Please indicate on the 7-point scale below how you would describe the culture of your organisation?

1	2	3	4	5	6	7
Very conservative (Traditional/Rule-bound)						Very progressive (Enlightened/People-orientated)

25. Does your company have specific targets for the employment of people with disabilities?

Yes	No
-----	----

26a. If yes, what are the penalties for not meeting these targets?

Nil	Loss of incentive bonus	Other
-----	-------------------------	-------

b. If other, please describe: _____

27. What types of jobs, in general, most often become vacant in the organisation? _____

28. Who (position) drives the

HR	Senior managers	Line managers	Nobody
----	-----------------	---------------	--------

disability employment targets? _____

29. Does your company provide training in disability matters (e.g. disability management/discipline/legal aspects/sensitivity training/

accommodation/assistive technology for people with disabilities)

Yes	No
-----	----

30a. Has your company ever been taken to the CCMA for alleged unfair treatment of a person with a disability?

Yes	No
-----	----

b. If yes, please briefly describe the charge and outcome?

31. Does your trade union agreement contain a clause dealing specifically with people with disabilities?

Yes	No
-----	----

C. THE EMPLOYMENT OF PEOPLE WITH DISABILITIES (PWD): SPECIFIC ASPECTS

In this section, please take note of the examples of disabilities when responding to the questions that follow:

- **physical disability** e.g. paraplegia; amputated leg; amputated arm; mobility on crutches; mobility with a frame; limp; rigid leg; muscle damage.
- **neurological disability** e.g. brain injury, paralysed arm or leg; tremors, nerve damage, epilepsy, etc.
- **sensory disability** e.g. partial deafness; partial blindness; poor balance; speech impediment; etc.
- **psychological / psychiatric disability** (given medication) e.g. intellectual impairment, depression, bi-polar disorder, etc.

Please indicate your level of agreement / disagreement with each of the following statements:

32. The company would be willing to make the following job-related modifications to accommodate physical disability:

a. - Restructure or redesign an existing job.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

b. - Implement flexible work hours / work schedules (e.g. flexitime).

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

c. - Allocate people with physical disabilities to specific types of jobs.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree

d. If other modification(s), please specify: _____

e. Would such job modifications be considered for all levels (junior to senior management)?

Yes	No
-----	----

33a. The company's premises are accessible to people with a physical disability (ramps, lifts, cloakrooms, wide doorways, designated parking bays, elevators, etc.).

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

b. If not yet accessible, the company would be willing to make reasonable alterations.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

34a. The company has implemented assistive technology (e.g. special computer software, special keyboards, adjustable furniture, adjustable shelves, etc.).

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

b. If not yet implemented, the company would be willing to acquire such assistive technology.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

35. The perceived cost of accommodations and/or assistive technology/devices would prevent the company from employing a person with a disability.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

36a. The company has safety concerns (physical hazards/accident risks) about employing a person with a physical disability.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

b. If you agree, please explain what risks or hazards you foresee, on the drop-down menu:

<u>Tick</u>	<u>Hazard / risk</u>
_____	Catwalk staircases
_____	Slippery surfaces
_____	Wet surfaces
_____	Uneven surfaces
_____	Dangerous machinery
_____	Protruding machine parts/levers
_____	Inadequate lighting
_____	Other (Specify)

37a. The company has concerns about customer reactions to dealing with a person with a visible or physical disability.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

b. If you agree, what are these anticipated reactions? _____

38a. The company has had a negative experience with employing a person with a disability.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

b. A past negative experience occurred with a person with the following disability:

Physical mobility	/	Neurological sensory	/	Psychological/ Psychiatric/Intellectual
-------------------	---	----------------------	---	---

c. Please explain briefly what happened? _____

39. The company endeavours to be perceived as a socially responsible employer, with such responsibility extending to the employment of people with disabilities.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

40a. The company would be willing to employ a person with a physical disability.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

b. Please tick all that apply:

Paraplegia	Amputated leg	Amputated arm	Amputated fingers	Mobility on crutches
Mobility with walking frame	Limp	Rigid leg	Muscle damage	Back or neck conditions

c. In which jobs (job titles)? _____

41a. The company would be willing to employ a person with a neurological disability.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

b. Please tick all that apply:

Mild brain injury	Paralysed arm or leg	Tremors	Nerve damage
-------------------	----------------------	---------	--------------

c. In which jobs (job titles)? _____

42a. The company would be willing to employ a person with a sensory disability

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

b. Please tick all that apply:

Partial deafness	Partial blindness	Poor balance	Speech impediment
------------------	-------------------	--------------	-------------------

c. In which jobs (job titles)? _____

43a. The company would be willing to employ a person with a psychosocial/psychological / psychiatric/cognitive disability.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

b. Please tick all that apply:

Intellectual impairment	Depression	Bi-polar disorder	Other
-------------------------	------------	-------------------	-------

c. In which jobs (job titles)? _____

44. The company would be willing to employ a person with a physical disability on a temporary/contract / trial basis.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

45a. The company provides technical skills training in its technology and processes to all new employees (with and without a disability).

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

b. Please provide examples of such skills training: _____

46. The company's work processes (e.g. production floor technology) could be mastered by a person with a physical disability, e.g. amputated leg, wheelchair-user.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

D: GENERAL PERCEPTIONS PERTAINING TO PEOPLE WITH DISABILITIES (PWD)

47. PWD often lack the skills and experience (competence) required for available positions.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

48. PWD are often viewed as less productive than able-bodied employees (e.g. lower standard of job performance, slower work speed, unreliability, less endurance, absent more frequently, higher staff turnover, etc.).

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

49a. PWD should be subjected to the same performance standards as able-bodied employees.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

- b. If you disagree, please state reasons _____
- 50a. Employers are more willing to employ people with physical disabilities than those with psychosocial / psychological / psychiatric / intellectual conditions.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

- b. If you agree, please indicate the reasons _____
- 51a. Generally, your experience of employing people with physical disabilities has been positive.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

- b. If you disagree, please indicate the reasons _____
- c. Feedback from supervisors who oversee PWD has been positive.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

52. PWD depend more on assistance from colleagues (supervisors and co-workers) than their able-bodied peers, which adds to their workload.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

53. Employers feel unfamiliar with how to manage the needs of people with disabilities (including knowledge of accommodation and assistive technology).

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

54. Supervisors feel apprehensive or unsure of how to discipline/evaluate the performance of PWD.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

55. PWD cause co-workers to feel uncomfortable working alongside them.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

56. PWD cause co-workers to react with resentment where teamwork performance is rewarded (e.g. shared incentives).

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

57. Employers who employ PWD will need to spend more money on training (e.g. train staff in disability matters, sensitivity training, etc.).

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

58. PWD need special treatment (e.g. flexitime, accessibility, less work pressure, more leniency, etc.).

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

59. PWD are less likely to be developed or promoted.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

60. The company actively recruits people with disabilities.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

61. People with disabilities respond to job advertisements in the media.

Strongly agree	Mostly agree	Agree	Disagree	Mostly disagree	Strongly disagree
----------------	--------------	-------	----------	-----------------	-------------------

62. The company uses a form of Targeted Selection in its recruitment and selection strategies.

Yes	No
-----	----

- 63a. In an interview, the company uses employability ratings with regard to the applicant's skills, qualifications, work experience, self-presentation, etc.

Yes	No
-----	----

- b. If yes, employability ratings are applied:

Across the board	To specific groups of applicants
------------------	----------------------------------

64. The company utilises the following means for the recruitment of people with disabilities:

Media (Printed & Internet)	Rehab professionals	Specialised employment agents	Disability organisations	Department of Labour centres	Word of mouth
----------------------------	---------------------	-------------------------------	--------------------------	------------------------------	---------------

E. YOUR FINAL VALUED OPINION:

Your professional opinion would be extremely helpful in contemplating the way forward, therefore:

65. In your opinion, what would it take to motivate your organisation to increase the employment rate of people with disabilities?
66. In your opinion, why are employers, in general, reluctant or unwilling to employ people with disabilities?
67. In your opinion, what would it take on the part of government and legislation to increase the employment rate of people with disabilities (e.g. what types of incentives would motivate employers)?

Note: Attachments would be most welcome (e.g. your disability policy, if any).

68.

Any comments you wish to add:

Your participation is highly appreciated, thank you very much.

**APPENDIX C: INTERVIEW SCHEDULES: EMPLOYED AND
UNEMPLOYED PERSONS WITH PHYSICAL DISABILITIES
INTERVIEW FORMAT: PERSONS WITH DISABILITIES
CODE: _____**

INTRODUCTION:

My name is: _____

(Interpreter).

You will remember that you were interviewed for your accident claim on _____ in Centurion. Cecile Nel, the industrial psychologist, is now doing a research project on the problems that people with disabilities experience to find employment. Your name will not be used on any documents – your responses are completely confidential.

Are you willing to participate by answering a few straight-forward questions about your work situation?

Yes	No
-----	----

Thank you for your willingness since your feedback is very valuable to the project.

Please ask me to repeat any questions if you feel unsure.

PLEASE REPEAT THE PERSON'S RESPONSES BACK TO THEM AND ASK FOR CLARITY WHERE NECESSARY. ENSURE ACCURACY.

Are you working, whether for a company or self-employed?

(If **yes**, do Questionnaire 1; if **no**, do Questionnaire 2).

QUESTIONNAIRE 1 (Employed person):

1. What is your job title? _____

2. What is your company/employer's name? _____

3. Where is your employer based (town)?

4. Are you permanent / on contract / casual? _____

5. What is your salary before deductions (weekly / fortnightly / monthly)?

6. What benefits do you get?

Provident Fund	Pension Fund	Medical Aid	Variable Bonus	Double Cheque	Performance/ Incentive Bonus
-------------------	-----------------	----------------	-------------------	------------------	------------------------------------

7. How do you get to work (what transport)?

8. How did you get your job (e.g. friends / family / newspaper / labour broker / employment agency / direct application)?

9. What obstacles / bad experiences did you face when looking for work before you got this job?

Now that you are working:

10. Do you like your job?

11. What are the positive things you experience at work?

12. What are the negative / bad / unpleasant things you experience at work?

13. What specific problems do you experience at your place of work or to do your job (difficulties)?

14. What accommodations (special treatment) were made for you (e.g. assistance from others / flexi hours / job was changed / other)?

15. What assistive devices do you use at work (if any)?

16. What accommodations or assistive devices do you still need to do your job better? _____

17. What skills training have you received in the last year?

18. What further skills training do you still need to improve your job performance?

19. What are you good at? _____

20. What do you struggle with?

21. Have you been promoted since the accident (from what position to what position)? _____

22. Do you feel your job is safe or threatened?

Safe	Threatened
------	------------

23. If threatened, why?

24. Do you want to stay with this company?

Yes	No
-----	----

25. If no, why not?

26. Do you work in a team? _____

27. Do you feel part of the team when work is allocated and decisions are made? _____

28. If no, why not? _____

29. How are you treated by your team members (explain)?

30. How are you treated by your supervisor (explain)?

31. Do they understand or accept your disability?

32. Are there other disabled people employed by your company?

Yes	No
-----	----
33. What disabilities do they have?

34. In general, are there things that make you unhappy or uncomfortable at work? _____

35. What things? _____

36. How has your life changed since the accident?

37. What are your future goals / plans?

38. What did you do with your RAF money?

Thank you very much for your participation. Would you like to know the results of this research? If yes, where can it be sent to you? (Post box address or e-mail).

I, _____, a qualified interpreter, undertake to keep the information obtained confidential, not to be divulged to any other individual or organisation, apart from the researcher, Ms C J Nel-Venter.

Signed Date

QUESTIONNAIRE 2 (Unemployed person):

1. Why are you unable to get a job (actual reasons)? _____

2. What specific problems have you faced? _____

3. Are you actively looking for work? _____

4. What kind of jobs are you looking for?

5. What methods have you used to find work (e.g. friends / family / newspaper / labour broker / employment agency / government labour centre / direct application / other-what)? _____

6. When unsuccessful, what was the reason given by the company?

7. What has been your worst experience in looking for a job?

8. What has been a positive experience in looking for a job?

9. Do you wish to work? _____

10. When did your last job end? _____

11. What was your last job?

12. At which company did you work?

13. How long did you work there? _____

14. What was your salary? _____ and
benefits

15. Why did you leave your last job?

Dismissed (Why)	Retrenched	Company Closed	Absconded (Why)
--------------------	------------	-------------------	--------------------

16. What bad experiences did you have at your last job?

17. What skills do you believe would enable you to get a job?

18. Would you prefer self-employment?

Doing _____ what?

19. How has your life changed since the accident?

20. What are your future goals/plans? _____

21. What did you do with your RAF money?

Thank you very much for your participation. Would you like to know the results of this research? If yes, where can it be sent to you? (Post box address or e-mail).

I, _____, a qualified interpreter, undertake to keep the information obtained confidential, not to be divulged to any other individual or organisation, apart from the researcher, Ms C J Nel-Venter.

Signed

Date

APPENDIX D: CHAPTER 6: TABLES

Table 1D

The types of physical disabilities that the organisation would be willing to employ

	Responses		
	N	Percent	Percent of Cases
Paraplegia	148	7.7	51.2
Amputated leg	228	11.8	78.9
Amputated arm	210	10.9	72.7
Amputated fingers	200	10.4	69.2
Mobility on crutches	217	11.3	75.1
Mobility with walking frame	160	8.3	55.4
Limp	243	12.6	84.1
Rigid leg	201	10.4	69.6
Muscle damage	175	9.1	60.6
Physical: Back or neck conditions	143	7.4	49.5
Total	1925	100.0	666.1

Table 2D

The categories of jobs in which the organisation would be willing to employ a person with a physical disability: Multiple response

	Responses		
	N	Percent	Percent of Cases
Admin (wide variety)	125	41.1	56.6
Across the board (all suitable jobs)	56	18.4	25.3
Accounting/finance	19	6.3	8.6
Sales (mostly internal & telesales)	15	4.9	6.8
Call centre/help desk/control room	13	4.3	5.9
IT	9	3.0	4.1
Technicians	9	3.0	4.1
HR/training	8	2.6	3.6
Marketing/customer service	8	2.6	3.6
Supply chain/warehousing/fleet	8	2.6	3.6
Managerial	6	2.0	2.7
Draughtsman/design	5	1.6	2.3
Research/laboratory	3	1.0	1.4
Production/assembly	3	1.0	1.4
General worker/operator	3	1.0	1.4
Attorneys	3	1.0	1.4
Academic/lecturer	2	0.7	0.9
Pharmacist	2	0.7	0.9

Project co-ordinator/manager	2	0.7	0.9
Cashier	2	0.7	0.9
Counsellors (health)	1	0.3	0.5
Engineers (mostly electronic)	1	0.3	0.5
Scientists	1	0.3	0.5
Total	304	100.0	137.6

Table 3D

The types of neurological disabilities that the organisation would be willing to employ

	Responses		
	N	Percent	Percent of Cases
Mild brain injury	73	16.1	35.6
Paralysed arm or leg	179	39.4	87.3
Tremors	91	20.0	44.4
Nerve damage	111	24.4	54.1
Total	454	100.0	221.5

Table 4D

The categories of jobs in which the organisation would be willing to employ a person with a neurological disability: Multiple response

	Responses		
	N	Percent	Percent of Cases
Admin	80	41.67	50.31
Across the board	52	27.08	32.70
Accounting/finance	13	6.77	8.18
HR/training	8	4.17	5.03
Managerial	6	3.13	3.77
Sales (internal mostly)	6	3.13	3.77
Call centre/help desk/control room	5	2.60	3.14
IT	5	2.60	3.14
General worker	4	2.08	2.52
Attorneys	2	1.04	1.26
Academic/lecturer	2	1.04	1.26
Marketing	2	1.04	1.26
Cashier	1	0.52	0.63
Counsellors (health)	1	0.52	0.63
Engineers (electronic)	1	0.52	0.63
Production	1	0.52	0.63

Research/lab	1	0.52	0.63
Supply chain	1	0.52	0.63
Technician	1	0.52	0.63
Total	192	100.0	120.8

Table 5D

The types of sensory disabilities that the organisation would be willing to employ

	Responses		
	N	Percent	Percent of Cases
Partial deafness	213	31.8	82.6
Partial blindness	183	27.4	70.9
Poor balance	116	17.3	45.0
Speech impediment	157	23.5	60.9
Total	669	100.0	259.3

Table 6D

The categories of jobs in which the organisation would be willing to employ a person with a sensory disability: Multiple response

	Responses		
	N	Percent	Percent of Cases
Admin	95	43.2	50.8
Across the board	56	25.5	29.9
Accounting/finance	18	8.2	9.6
HR/training	9	4.1	4.8
Managerial	7	3.2	3.7
Supply chain/w/housing	6	2.7	3.2
Technicians/artisans	5	2.3	2.7
Call centre	4	1.8	2.1
IT	4	1.8	2.1
Production	4	1.8	2.1
Sales	3	1.4	1.6
Marketing	2	0.9	1.1
Cleaners/General workers	2	0.9	1.1
Attorney	1	0.5	0.5
Academic/lecturer	1	0.5	0.5
Draughtsman/designer	1	0.5	0.5
Research/lab	1	0.5	0.5
Driver	1	0.5	0.5
Project management	0	0.0	0.0

Construction	0	0.0	0.0
Total	220	100.0	117.6

Table 7D

The types of psycho-social/psychological/psychiatric/ intellectual disabilities that the organisation would be willing to employ

	Responses		
	N	Percent	Percent of Cases
Intellectual impairment	72	19.6	37.5
Depression	143	39.0	74.5
Bi-polar disorder	148	40.3	77.1
Other	4	1.1	2.1
Total	367	100.0	191.1

Table 8D

*The categories of jobs in which the organisation would be willing to employ a person with a psycho-social/psychological/ psychiatric/intellectual disability:
Multiple response*

	Responses		
	N	Percent	Percent of Cases
Across the board	70	46.1	52.6
Admin	48	31.6	36.1
General worker	6	3.9	4.5
IT	4	2.6	3.0
Technicians/artisans	4	2.6	3.0
HR/training	3	2.0	2.3
Managerial	3	2.0	2.3
Accounting/finance	2	1.3	1.5
Production	2	1.3	1.5
Sales	2	1.3	1.5
Supply chain/w/housing	2	1.3	1.5
Attorney	1	0.7	0.8
Academic/lecturer	1	0.7	0.8
Cashier	1	0.7	0.8
Draughtsman/designer	1	0.7	0.8
Call centre	1	0.7	0.8
Marketing	1	0.7	0.8
Total	152	100.0	114.3

Table 9D

Feedback from supervisors who oversee persons with disabilities has been positive

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	41	12.0	14.7	14.7
Mostly agree	61	17.8	21.9	36.7
Agree	163	47.7	58.6	95.3
Disagree	8	2.3	2.9	98.2
Mostly disagree	2	.6	.7	98.9
Strongly disagree	3	.9	1.1	100.0
Total	278	81.3	100.0	
Missing	64	18.7		
Total	342	100.0		

Table 10D

If not yet accessible, the organisation would be willing to make reasonable alterations

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	90	26.3	28.5	28.5
Mostly agree	62	18.1	19.6	48.1
Agree	126	36.8	39.9	88.0
Disagree	22	6.4	7.0	94.9
Mostly disagree	7	2.0	2.2	97.2
Strongly disagree	9	2.6	2.8	100.0
Total	316	92.4	100.0	
Missing	26	7.6		
Total	342	100.0		

Table 11D

If not yet implemented, the organisation would be willing to acquire assistive technology

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	78	22.8	24.4	24.4
Mostly agree	49	14.3	15.3	39.7
Agree	147	43.0	45.9	85.6
Disagree	28	8.2	8.8	94.4
Mostly disagree	7	2.0	2.2	96.6
Strongly disagree	11	3.2	3.4	100.0
Total	320	93.6	100.0	
Missing	22	6.4		
Total	342	100.0		

Table 12D

Works in a team/team involvement

	Frequency	Percent	Valid Percent	Cumulative Percent
Work in a team	117	75.5	75.5	75.5
Does not work in a team	38	24.5	24.5	100.0
Total	155	100.0	100.0	

Table 13D

The organisation has had a negative experience with employing a person with a disability

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	4	1.2	1.3	1.3
Mostly agree	7	2.0	2.3	3.6
Agree	34	9.9	11.1	14.8
Disagree	104	30.4	34.1	48.9
Mostly disagree	49	14.3	16.1	64.9
Strongly disagree	107	31.3	35.1	100.0
Total	305	89.2	100.0	
Missing	37	10.8		
Total	342	100.0		

Table 14D

The type of disability with which a past negative experience occurred

	Responses		
	N	Percent	Percent of Cases
Physical/mobility	33	45.8	50.8
Neurological/Sensory	15	20.8	23.1
Psychological/Psychiatric/Intellectual	24	33.3	36.9
Total	72	100.0	110.8

Table 15D

The expectation that a person with a disability should indicate the accommodations and/or assistive technology they would need during the initial interview

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	297	86.8	87.4	87.4
No	43	12.6	12.6	100.0
Total	340	99.4	100.0	
Missing	2	.6		
Total	342	100.0		

Table 16D

In case of an invisible disability, the expectation or not that a person should disclose such during the initial interview

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	226	66.1	66.1	66.1
No	116	33.9	33.9	100.0
Total	342	100.0	100.0	

Table 17D.

Jobs most frequently vacant: Multiple response

	Responses		Percent of Cases
	N	Percent	
Administration	70	17.9	22.5
Low level/general worker/forklift operator/driver	47	12.0	15.1
Artisans/Technicians	36	9.2	11.6
Sales	35	9.0	11.3
Across the board	23	5.9	7.4
IT	20	5.1	6.4
Marketing/client service/support consultants/ key accounts	20	5.1	6.4
Finance/bookkeeping/auditing	19	4.9	6.1
Production/machine operators/quality control	16	4.1	5.1
Engineers	15	3.8	4.8
Nurses	10	2.6	3.2
Call centre agents	7	1.8	2.3
Mining operations	7	1.8	2.3
Senior managers/Executives	7	1.8	2.3
Research/Scientists	6	1.5	1.9
Academic staff	5	1.3	1.6
HR	5	1.3	1.6
Safety/Environment	5	1.3	1.6
Learnerships	4	1.0	1.3
Pharmacists	4	1.0	1.3
Warehousing/Supply chain	4	1.0	1.3
Attorneys	3	0.8	1.0
Health workers	3	0.8	1.0
Actuaries	2	0.5	0.6
Banking	2	0.5	0.6
Construction staff	2	0.5	0.6
Draughtsmen	2	0.5	0.6
Project managers/Co-ordinators	2	0.5	0.6
Retail	2	0.5	0.6
Cashier	1	0.3	0.3
Casino staff	1	0.3	0.3
Editors	1	0.3	0.3
Field workers	1	0.3	0.3
Fire fighters	1	0.3	0.3
Reps	1	0.3	0.3
Security	1	0.3	0.3

Tour guide	1	0.3	0.3
Total	391	100.0	125.7

Table 18D

Type of job sought

	Frequency	Percent	Valid Percent	Cumulative Percent
N/A	43	27.4	27.9	27.9
Any suitable job	34	21.7	22.1	50.0
Light job	18	11.5	11.7	61.7
Admin assistant/receptionist	10	6.4	6.5	68.2
Driver	6	3.8	3.9	72.1
Cleaner	5	3.2	3.2	75.3
Security guard	5	3.2	3.2	78.6
Hawker/vendor/spaza shop operator	4	2.5	2.6	81.2
Nurse	4	2.5	2.6	83.8
Home worker/domestic worker	4	2.5	2.6	86.4
IT/computer operator/data capturer	3	1.9	1.9	88.3
Artisan assistant	3	1.9	1.9	90.3
Cashier	2	1.3	1.3	91.6
Teacher	2	1.3	1.3	92.9
Shop assistant/packer	2	1.3	1.3	94.2
Self-employment	2	1.3	1.3	95.5
None, cannot work	2	1.3	1.3	96.8
Caterer	1	0.6	0.6	97.4
Paramedic	1	0.6	0.6	98.1
Motor mechanic	1	0.6	0.6	98.7
Creche assistant	1	0.6	0.6	99.4
Gardener	1	0.6	0.6	100.0
Total	154	98.1	100.0	
Missing	3	1.9		
Total	157	100.0		

Table 19D

Physical/mobility restrictions

	Responses		Percent of
	N	Percentage	Cases
Physical / mobility restriction: Paraplegia (wheelchair bound)	73	22.7	43.7
Physical / mobility restriction: Amputated leg	46	14.3	27.5
Physical / mobility restriction: Amputated arm (dominant arm)	30	9.3	18.0
Physical / mobility restriction: Amputated arm (non-dominant arm)	22	6.9	13.2
Physical / mobility restriction: Mobilisation on crutches	46	14.3	27.5
Physical / mobility restriction: Mobilisation with a walking frame	11	3.4	6.6
Physical / mobility restriction: Mobilisation with a limp	77	24.0	46.1
Physical / mobility restriction: Rigid (straight) leg	16	5.0	9.6
Total	321	100.0	192.2

Table 20D

Neurological/nerve damage

	Responses		Percent of
	N	Percent	Cases
Neurological / nerve damage: Brain injury	13	10.4	13.7
Neurological / nerve damage: Right-sided or left-sided paralysis	18	14.4	18.9
Neurological / nerve damage: Paralysed arm	20	16.0	21.1
Neurological / nerve damage: Tremors in the arms / hands	12	9.6	12.6
Neurological / nerve damage: Epilepsy	62	49.6	65.3
Total	125	100.0	131.6

Table 21D

Sensory impairments

	Responses		Percent of Cases
	N	Percent	
Sensory: Partial deafness	87	34.9	51.5
Sensory: Total deafness	24	9.6	14.2
Sensory: Partial blindness	83	33.3	49.1
Sensory: Total blindness	12	4.8	7.1
Sensory: Poor balance	13	5.2	7.7
Sensory: Speech impediment	30	12.0	17.8
Total	249	100.0	147.3

Table 22D

Myological (muscle damage) conditions

	Frequency	Percent	Valid Percent	Cumulative Percent
Obvious loss of muscle tissue	23	6.7	100.0	100.0
Missing	319	93.3		
Total	342	100.0		

Table 23D

Disfigurement

	Frequency	Percent	Valid Percent	Cumulative Percent
Severe scarring of the face, hands, arms, legs	38	11.1	100.0	100.0
Missing	304	88.9		
Total	342	100.0		

Table 24D

Psychosocial (invisible) disabilities

	Frequency	Percent	Valid Percent	Cumulative Percent
Psychological, psychiatric, mental or intellectual disorders	81	23.7	100.0	100.0
Missing	261	76.3		
Total	342	100.0		

Table 25D

Administration/HR/accounting/buying, etc.

	Responses		
	N	Percent	Percent of Cases
Administration (HR / Accounting / Buying, etc.): Low level	176	37.5	68.0
Administration (HR / Accounting / Buying, etc.): Specialist/professional	102	21.7	39.4
Administration (HR / Accounting / Buying, etc.): Junior management/supervisors	88	18.8	34.0
Administration (HR / Accounting / Buying, etc.): Middle management	59	12.6	22.8

Administration (HR / Accounting / Buying, etc.): Senior management / executive	44	9.4	17.0
Total	469	100.0	181.1

Table 26D

Sales/marketing/customer service

	Responses		Percent of Cases
	N	Percent	
Sales / Marketing / Customer service: Low level	89	36.8	58.6
Sales / Marketing / Customer service: Specialist/professional	55	22.7	36.2
Sales / Marketing / Customer service: Junior management/supervisors	49	20.2	32.2
Sales / Marketing / Customer service: Middle management	33	13.6	21.7
Sales / Marketing / Customer service: Senior management / executive	16	6.6	10.5
Total	242	100.0	159.2

Table 27D

Production

	Responses		Percent of Cases
	N	Percent	
Production: Low level	96	36.9	68.1
Production: Specialist/professional	82	31.5	58.2
Production: Junior management/supervisors	39	15.0	27.7
Production: Middle management	27	10.4	19.1
Production: Senior management / executive	16	6.2	11.3
Total	260	100.0	184.4

Table 28D

Supply chain (warehousing/logistics/fleet/distribution)

	Responses		Percent of Cases
	N	Percent	
Supply chain (Warehousing / Logistics / Fleet / Distribution): Low level	69	39.9	65.7
Supply chain (Warehousing / Logistics / Fleet / Distribution): Specialist/professional	33	19.1	31.4
Supply chain (Warehousing / Logistics / Fleet / Distribution): Junior management/supervisors	36	20.8	34.3
Supply chain (Warehousing / Logistics / Fleet / Distribution): Middle management	26	15.0	24.8
Supply chain (Warehousing / Logistics / Fleet / Distribution): Senior management / executive	9	5.2	8.6
Total	73	100.0	164.8

Table 29D

Technical/maintenance

	Responses		Percent of Cases
	N	Percent	
Technical / Maintenance: Low level	56	32.6	49.1
Technical / Maintenance: Specialist/professional	49	28.5	43.0
Technical / Maintenance: Junior management/supervisors	31	18.0	27.2
Technical / Maintenance: Middle management	26	15.1	22.8
Technical / Maintenance: Senior management / executive	10	5.8	8.8
Total	172	100.0	150.9

Table 30D

Research and development

	Responses		Percent of Cases
	N	Percent	
Research & Development: Low level	38	24.0	37.8
Research & Development: Specialist/professional	31	29.5	46.3
Research & Development: Junior management/ supervisors	24	18.6	29.3
Research & Development: Middle management	24	18.6	29.3
Research & Development: Senior management/ executive	12	9.3	14.6
Total	129	100.0	157.3

Table 31D

Information technology

	Responses		Percent of
	N	Percent	Cases
Information Technology: Low level	41	22.5	38.7
Information Technology: Specialist/professional	64	35.2	60.4
Information Technology: Junior management/supervisors	35	19.2	33.0
Information Technology: Middle management	29	15.9	27.4
Information Technology: Senior management/executive	13	7.1	12.3
Total	182	100.0	171.7

Table 32D

Likes his/her job

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	138	89.0	90.2	90.2
No	15	9.7	9.8	100.0
Total	153	98.7	100.0	
Not answered	2	1.3		
Total	155	100.0		

Table 33D

Means of transportation taken to work

	Frequency	Percent	Valid Percent	Cumulative Percent
Car	75	48.4	48.4	48.4
Taxi	39	25.2	25.2	73.5
Bus	16	10.3	10.3	83.9
Walks to work	11	7.1	7.1	91.0
Work transport	7	4.5	4.5	95.5
Train	3	1.9	1.9	97.4
N/A, works from home	3	1.9	1.9	99.4
Lift club	1	.6	.6	100.0
Total	155	100.0	100.0	

Table 34D

The organisation's trade union agreement contains a clause dealing specifically with persons with disabilities

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	76	22.2	23.1	23.1
No	253	74.0	76.9	100.0
Total	329	96.2	100.0	
Missing	13	3.8		
Total	342	100.0		

Table 35D

The organisation has a diversity policy in place

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	259	75.7	76.2	76.2
No	81	23.7	23.8	100.0
Total	340	99.4	100.0	
Missing	2	.6		
Total	342	100.0		

Table 36D

Case processing summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
Does your company provide training in disability matters (e.g. disability management/discipline/legal aspects/sensitivity training/accommodation/assistive technology for persons with disabilities)	334	97.7	8	2.3	342	100.0

* Sector

Table 37D

Sector cross-tabulation: The organisation provides training in disability matters (e.g. disability management/discipline/legal aspects/sensitivity training/accommodation/assistive technology for persons with disabilities)

Sector		The company provides training in disability matters		
		Yes	No	Total
Agriculture/forestry/fisheries	Count	8 _{a, b}	6 _{a, b}	14
	% within Sector	57.1	42.9	100.0
Wholesale/retail sales	Count	10 _{a, b}	11 _{a, b}	21
	% within Sector	47.6	52.4	100.0
Construction/property development/property management	Count	13 _b	23 _b	36
	% within Sector	36.1	63.9	100.0
Financial services/banking/insurance	Count	28 _{a, b}	25 _{a, b}	53
	% within Sector	52.8	47.2	100.0
Health services/medical	Count	26 _{a, b}	14 _{a, b}	40
	% within Sector	65.0	35.0	100.0
Hospitality/recreation/culture/sport	Count	7 _{a, b}	9 _{a, b}	16
	% within Sector	43.8	56.3	100.0
Information technology/communication	Count	15 _b	23 _b	38
	% within Sector	39.5	60.5	100.0
Manufacturing (light)	Count	11 _{a, b}	13 _{a, b}	24
	% within Sector	45.8	54.2	100.0
Manufacturing (heavy)	Count	25 _{a, b}	19 _{a, b}	44
	% within Sector	56.8	43.2	100.0
Mining/quarrying	Count	12 _{a, b}	9 _{a, b}	21
	% within Sector	57.1	42.9	100.0
Supply chain/transport	Count	22 _a	5 _a	27
	% within Sector	81.5	18.5	100.0
Total	Count	177	157	334
	% within Sector	53.0	47.0	100.0

Table 38D

Case processing summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
	Restructure or redesign an existing job. * Sector	329	96.2	13	3.8	342

Table 39D

Sector cross-tabulation: Restructure or redesign an existing job

Sector		Restructure or redesign an existing job.		
		Agree	Disagree	Total
Agriculture/forestry/fisheries	Count	13 _a	1 _a	14
	% within Sector	92.9	7.1	100.0
Wholesale/retail sales	Count	18 _a	2 _a	20
	% within Sector	90.0	10.0	100.0
Construction/property dev/ property management	Count	26 _{a, b}	10 _{a, b}	36
	% within Sector	72.2	27.8	100.0
Financial services/banking/ insurance	Count	35 _b	18 _b	53
	% within Sector	66.0	34.0	100.0
Health services/medical	Count	31 _{a, b}	6 _{a, b}	37
	% within Sector	83.8	16.2	100.0
Hospitality/recreation/ culture/sport	Count	13 _{a, b}	3 _{a, b}	16
	% within Sector	81.3	18.8	100.0
Information technology/ Communication	Count	27 _{a, b}	10 _{a, b}	37
	% within Sector	73.0	27.0	100.0
Manufacturing (light)	Count	21 _{a, b}	3 _{a, b}	24
	% within Sector	87.5	12.5	100.0
Manufacturing (heavy)	Count	29 _b	15 _b	44
	% within Sector	65.9	34.1	100.0
Mining/quarrying	Count	14 _{a, b}	7 _{a, b}	21
	% within Sector	66.7	33.3	100.0

Supply chain/transport	Count	24 _a	3 _a	27
	% within Sector	88.9	11.1	100.0
Total	Count	251	78	329
	% within Sector	76.3	23.7	100.0

Each subscript letter denotes a subset of sector categories whose column proportions do not differ significantly from each other at the .05 level.

Table 40D

Case processing summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
	The perceived cost of accommodation and/or assistive technology/devices would prevent the company from employing a person with a disability. * Sector	327	95.6	1 5	4.4	342

Table 41D

Sector cross-tabulation: The perceived cost of accommodation and/or assistive technology/devices would prevent the organisation from employing a person with a disability

		The perceived cost of accommodation and/or assistive technology/devices would prevent the organisation from employing a person with a disability.		
Sector		Agree	Disagree	Total
Agriculture/forestry/ fisheries	Count	5 _{a, b, c}	8 _{a, b, c}	13
	% within Sector	38.5	61.5	100.0
Wholesale/retail sales	Count	5 _{a, b, c, d, e}	15 _{a, b, c, d, e}	20
	% within Sector	25.0%	75.0	100.0
Construction/property development/property management	Count	10 _{a, b, c, d, e}	26 _{a, b, c, d, e}	36
	% within Sector	27.8	72.2	100.0
Financial services/banking/ insurance	Count	17 _{a, b, c}	36 _{a, b, c}	53
	% within Sector	32.1	67.9	100.0

Health services/medical	Count	16 _c	21 _c	37
	% within Sector	43.2	56.8	100.0
Hospitality/recreation/ culture/sport	Count	6 _{a, b, c}	10 _{a, b, c}	16
	% within Sector	37.5	62.5	100.0
Information technology/communication	Count	7 _{b, e}	30 _{b, e}	37
	% within Sector	18.9	81.1	100.0
Manufacturing (light)	Count	12 _{a, c}	12 _{a, c}	24
	% within Sector	50.0	50.0	100.0
Manufacturing (heavy)	Count	20 _{a, c}	23 _{a, c}	43
	% within Sector	46.5	53.5	100.0
Mining/quarrying	Count	7 _{a, b, c, d, e}	14 _{a, b, c, d, e}	21
	% within Sector	33.3	66.7	100.0
Supply chain/transport	Count	3 _{d, e}	24 _{d, e}	27
	% within Sector	11.1	88.9	100.0
Total	Count	108	219	327
	% within Sector	33.0	67.0	100.0

Each subscript letter denotes a subset of sector categories whose column proportions do not differ significantly from each other at the .05 level.

Table 42D

Case processing summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
The company has safety concerns (physical hazards/accident risks) about employing a person with a physical disability. * Sector	324	94.7	18	5.3	342	100.0

Table 43D

Sector cross-tabulation: The organisation has safety concerns (physical hazards/accident risks) about employing a person with a physical disability.

Sector		The company has safety concerns about employing a person with a physical disability.		
		Agree	Disagree	Total
Agriculture/forestry/ fisheries	Count	10 _{a, b}	3 _{a, b}	13
	% within Sector	76.9	23.1	100.0
Wholesale/retail sales	Count	14 _{a, b}	6 _{a, b}	20
	% within Sector	70.0	30.0	100.0
Construction/property development/property management	Count	28 _{a, b}	8 _{a, b}	36
	% within Sector	77.8	22.2	100.0
Financial services/ banking/insurance	Count	13 _c	39 _c	52
	% within Sector	25.0	75.0	100.0
Health services/medical	Count	21 _{a, b, c}	15 _{a, b, c}	36
	% within Sector	58.3	41.7	100.0
Hospitality/recreation/ culture/sport	Count	9 _{a, b, c}	7 _{a, b, c}	16
	% within Sector	56.3	43.8	100.0
Information technology/communication	Count	16 _{b, c}	20 _{b, c}	36
	% within Sector	44.4	55.6	100.0
Manufacturing (light)	Count	18 _{a, b}	6 _{a, b}	24
	% within Sector	75.0	25.0	100.0
Manufacturing (heavy)	Count	33 _{a, b}	10 _{a, b}	43
	% within Sector	76.7	23.3	100.0
Mining/quarrying	Count	19 _a	2 _a	21
	% within Sector	90.5	9.5	100.0
Supply chain/transport	Count	19 _{a, b}	8 _{a, b}	27
	% within Sector	70.4	29.6	100.0
Total	Count	200	124	324
	% within Sector	61.7	38.3	100.0

Each subscript letter denotes a subset of sector categories whose column proportions do not differ significantly from each other at the .05 level.

Table 44D
Case processing summary

	Valid Percent	Cases		Total	
		N	Missing Percent	N	Percent
The company's work processes (e.g. production floor technology) could be mastered by a person with a physical disability e.g. amputated leg, wheelchair-user. * Sector	83.0	58	17.0	3	100.0
				4	
				2	

Table 45D

Sector cross-tabulation: The organisation work processes/production floor technology could be mastered by a person with a physical disability e.g. amputated leg, wheelchair user

Sector		The company's work processes could be mastered by a person with a physical disability e.g. amputated leg, wheelchair-user.		
		Agree	Disagree	Total
Agriculture/forestry/fisheries	Count	7 _{a, b}	6 _{a, b}	13
	% within Sector	53.8	46.2	100.0
Wholesale/retail sales	Count	9 _{a, b}	8 _{a, b}	17
	% within Sector	52.9	47.1	100.0
Construction/property development/property management	Count	19 _{a, b}	13 _{a, b}	32
	% within Sector	59.4	40.6	100.0
Financial services/banking/insurance	Count	42 _c	3 _c	45
	% within Sector	93.3	6.7	100.0
Health services/medical	Count	21 _{a, b, c}	9 _{a, b, c}	30
	% within Sector	70.0	30.0	100.0
Hospitality/recreation/culture/sport	Count	11 _{a, b, c}	1 _{a, b, c}	12
	% within Sector	91.7	8.3	100.0
Information technology/communication	Count	30 _{b, c}	4 _{b, c}	34
	% within Sector	88.2	11.8	100.0
Manufacturing (light)	Count	11 _{a, b}	10 _{a, b}	21
	% within Sector	52.4	47.6	100.0
Manufacturing (heavy)	Count	15 _a	22 _a	37
	% within Sector	40.5	59.5	100.0

Mining/quarrying	Count	12 _{a, b, c}	8 _{a, b, c}	20
	% within Sector	60.0	40.0	100.0
Supply chain/transport	Count	19 _{a, b, c}	4 _{a, b, c}	23
	% within Sector	82.6	17.4	100.0
Total	Count	196	88	284
	% within Sector	69.0	31.0	100.0

Each subscript letter denotes a subset of sector categories whose column proportions do not differ significantly from each other at the .05 level.

Table 46D

Case processing summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Employers feel unfamiliar with how to manage the needs of persons with disabilities (including knowledge of accommodation and assistive technology). *	275	80.4	6	19.6	342	100.0
Sector						

Table 47D

Sector cross-tabulation: Employers feel unfamiliar with how to manage the needs of persons with disabilities (including knowledge of accommodation and assistive technology)

		Employers feel unfamiliar with how to manage the needs of persons with disabilities.		
Sector		Agree	Disagree	Total
Agriculture/forestry/ fisheries	Count	6 _a	7 _a	13
	% within Sector	46.2	53.8	100.0
Wholesale/retail sales	Count	12 _{a, b, c, d, e, f, g, h, i, j, k, l, m}	4 _{a, b, c, d, e, f, g, h, i, j, k, l, m}	16
	% within Sector	75.0	25.0	100.0
Construction/property development/property management	Count	25 _{e, f, g, h, i, k, l, m}	6 _{e, f, g, h, i, k, l, m}	31
	% within Sector	80.6	19.4	100.0

Financial services/banking/insurance	Count	28 _{a, j, k, l, m}	14 _{a, j, k, l, m}	42
	% within Sector	66.7	33.3	100.0
Health services/medical	Count	18 _{a, i, m}	12 _{a, i, m}	30
	% within Sector	60.0	40.0	100.0
Hospitality/recreation/culture/sport	Count	12 _{c, d, g, h}	0 _{c, d, g, h}	12
	% within Sector	100.0	0.0	100.0
Information technology/communication	Count	17 _a	16 _a	33
	% within Sector	51.5	48.5	100.0
Manufacturing (light)	Count	18 _{b, d, f, h, j, l}	3 _{b, d, f, h, j, l}	21
	% within Sector	85.7	14.3	100.0
Manufacturing (heavy)	Count	21 _{a, e, i, k, m}	14 _{a, e, i, k, m}	35
	% within Sector	60.0	40.0	100.0
Mining/quarrying	Count	15 _{a, b, c, d, e, f, g, h, i, j, k, l, m}	4 _{a, b, c, d, e, f, g, h, i, j, k, l, m}	19
	% within Sector	78.9	21.1	100.0
Supply chain/transport	Count	13 _{a, e, i, k, m}	10 _{a, e, i, k, m}	23
	% within Sector	56.5	43.5	100.0
Total	Count	185	90	275
	% within Sector	67.3	32.7	100.0

Each subscript letter denotes a subset of sector categories whose column proportions do not differ significantly from each other at the .05 level.

Table 48D
Case processing summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
The company actively recruits persons with disabilities. * Sector	272	79.5	70	20.5	342	100.0

Table 49D
Sector cross-tabulation: The organisation actively recruits persons with disabilities

Sector	The company actively recruits persons with disabilities.			
		Agree	Disagree	Total
Agriculture/forestry/fisheries	Count	9 _{a, b, c}	4 _{a, b, c}	13
	% within Sector	69.2	30.8	100.0

Wholesale/retail sales	Count	9 _{a, b, c}	6 _{a, b, c}	15
	% within Sector	60.0	40.0	100.0
Construction/property development/property management	Count	12 _c	18 _c	30
	% within Sector	40.0	60.0	100.0
Financial services/banking/insurance	Count	32 _{a, b}	10 _{a, b}	42
	% within Sector	76.2	23.8	100.0
Health services/medical	Count	20 _{a, b}	10 _{a, b}	30
	% within Sector	66.7	33.3	100.0
Hospitality/recreation/culture/sport	Count	6 _{b, c}	6 _{b, c}	12
	% within Sector	50.0	50.0	100.0
Information technology/communication	Count	24 _{a, b}	9 _{a, b}	33
	% within Sector	72.7	27.3	100.0
Manufacturing (light)	Count	11 _{b, c}	9 _{b, c}	20
	% within Sector	55.0	45.0	100.0
Manufacturing (heavy)	Count	23 _{a, b}	12 _{a, b}	35
	% within Sector	65.7	34.3	100.0
Mining/quarrying	Count	10 _{b, c}	9 _{b, c}	19
	% within Sector	52.6	47.4	100.0
Supply chain/transport	Count	19 _a	4 _a	23
	% within Sector	82.6	17.4	100.0
Total	Count	175	97	272
	% within Sector	64.3	35.7	100.0

Each subscript letter denotes a subset of sector categories whose column proportions do not differ significantly from each other at the .05 level.

APPENDIX E: CHAPTER 6: SEM FIGURES AND TABLES

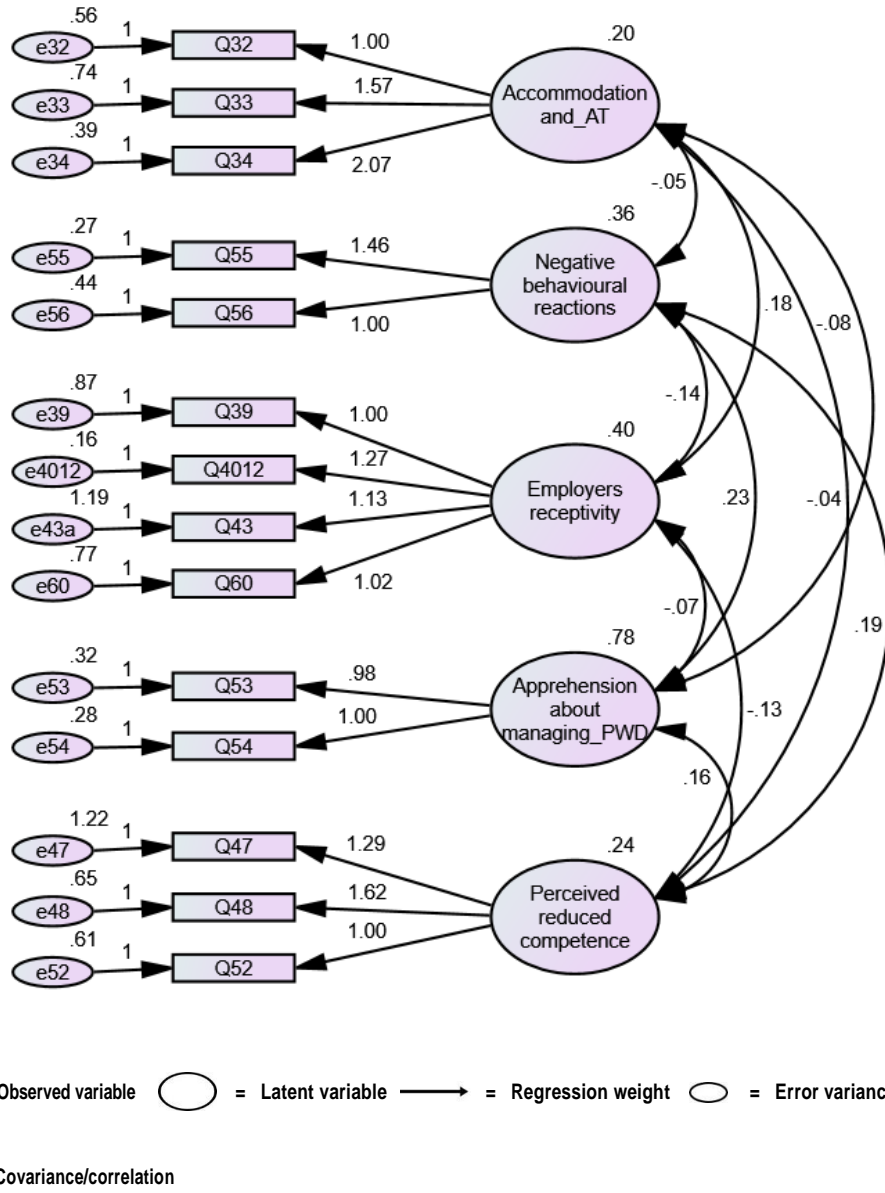


Figure 1FE SEM 1 (CFA) unstandardised path diagram

Table 1E

SEM 1 (CFA): Regression weights (unstandardised model)

Observed variables and latent constructs			Estimate	S.E.	C.R.	P
Q34	<---	Accommodation and AT	2.066	.278	7.425	< .0001
Q33	<---	Accommodation and AT	1.566	.219	7.155	< .0001
Q32	<---	Accommodation and AT	1.000			
Q56	<---	Negative Behavioural Reactions	1.000			
Q55	<---	Negative Behavioural Reactions	1.458	.178	8.205	< .0001
Q54	<---	Apprehension about Managing PWD	1.000			
Q53	<---	Apprehension about Managing PWD	.978	.118	8.258	< .0001
Q52	<---	Perceived Reduced Competence	1.000			
Q48	<---	Perceived Reduced Competence	1.617	.249	6.497	< .0001
Q47	<---	Perceived Reduced Competence	1.295	.225	5.757	< .0001
Q43	<---	Employer's Receptivity	1.128	.152	7.401	< .0001
Q40/1/2	<---	Employer's Receptivity	1.266	.137	9.211	< .0001
Q39	<---	Employer's Receptivity	1.000			
Q60	<---	Employer's Receptivity	1.024	.130	7.851	< .0001

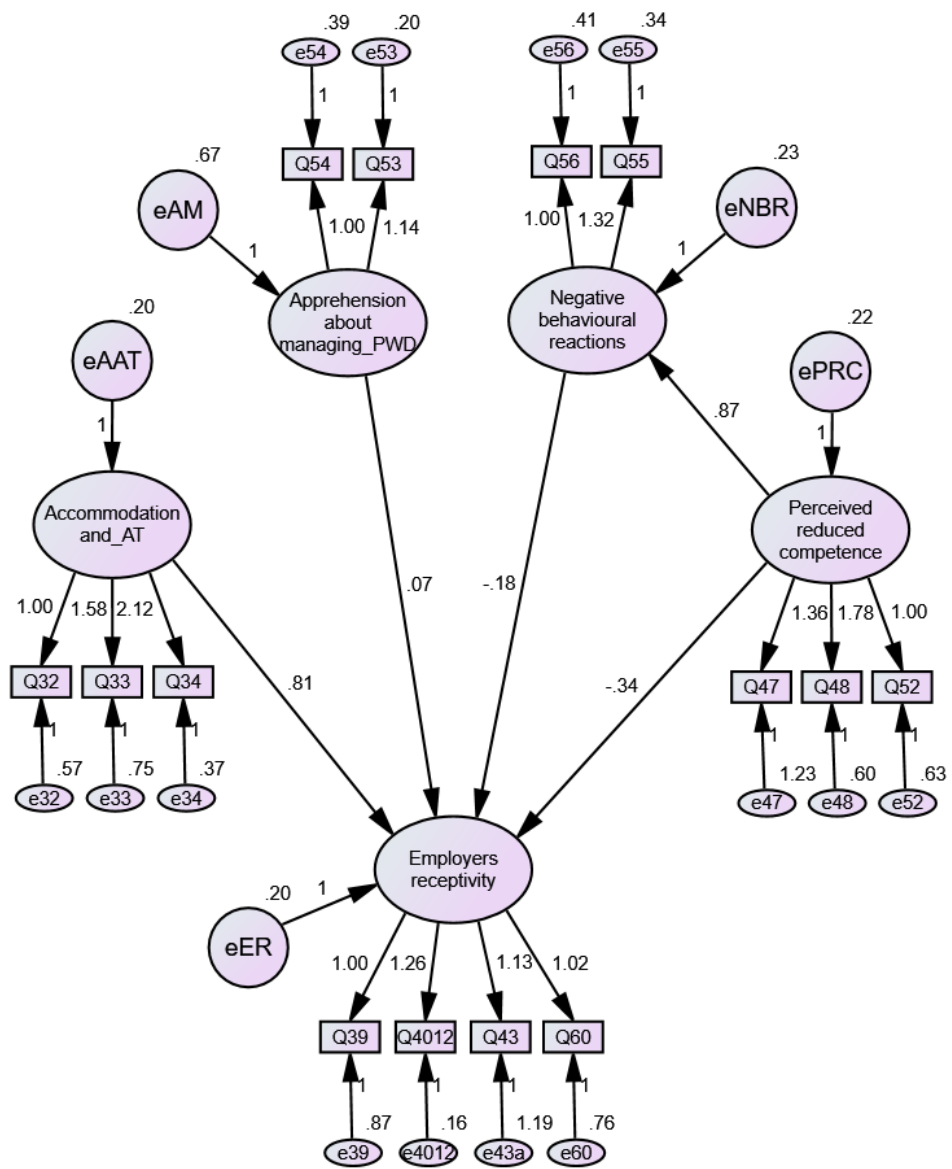
SE = standard error CR = critical ratio P = probability

Table 2E

SEM 1 (CFA): Covariances (unstandardised model)

Latent constructs			Estimate	S.E.	C.R.	P
Accommodation & AT	<-->	Negative behavioural reactions	-.052	.022	-2.361	.018
Accommodation & AT	<-->	Apprehension about managing PWD	-.078	.031	-2.516	.012
Accommodation & AT	<-->	Perceived reduced competence	-.041	.020	-2.058	.040
Accommodation & AT	<-->	Employer's receptivity	.177	.035	5.062	< .0001
Negative behavioural reactions	<-->	Apprehension about managing PWD	.229	.048	4.803	< .0001
Negative behavioural reactions	<-->	Perceived reduced competence	.186	.038	4.880	< .0001
Negative behavioural reactions	<-->	Employer's receptivity	-.144	.034	-4.180	< .0001
Apprehension about managing PWD	<-->	Perceived reduced competence	.159	.041	3.869	< .0001
Apprehension about managing PWD	<-->	Employer's receptivity	-.070	.040	-1.768	.077
Perceived reduced competence	<-->	Employer's receptivity	-.131	.032	-4.048	< .0001

SE = standard error CR = critical ratio P = probability



□ = Observed variable ○ = Latent variable → = Regression weight ○ = Error variance

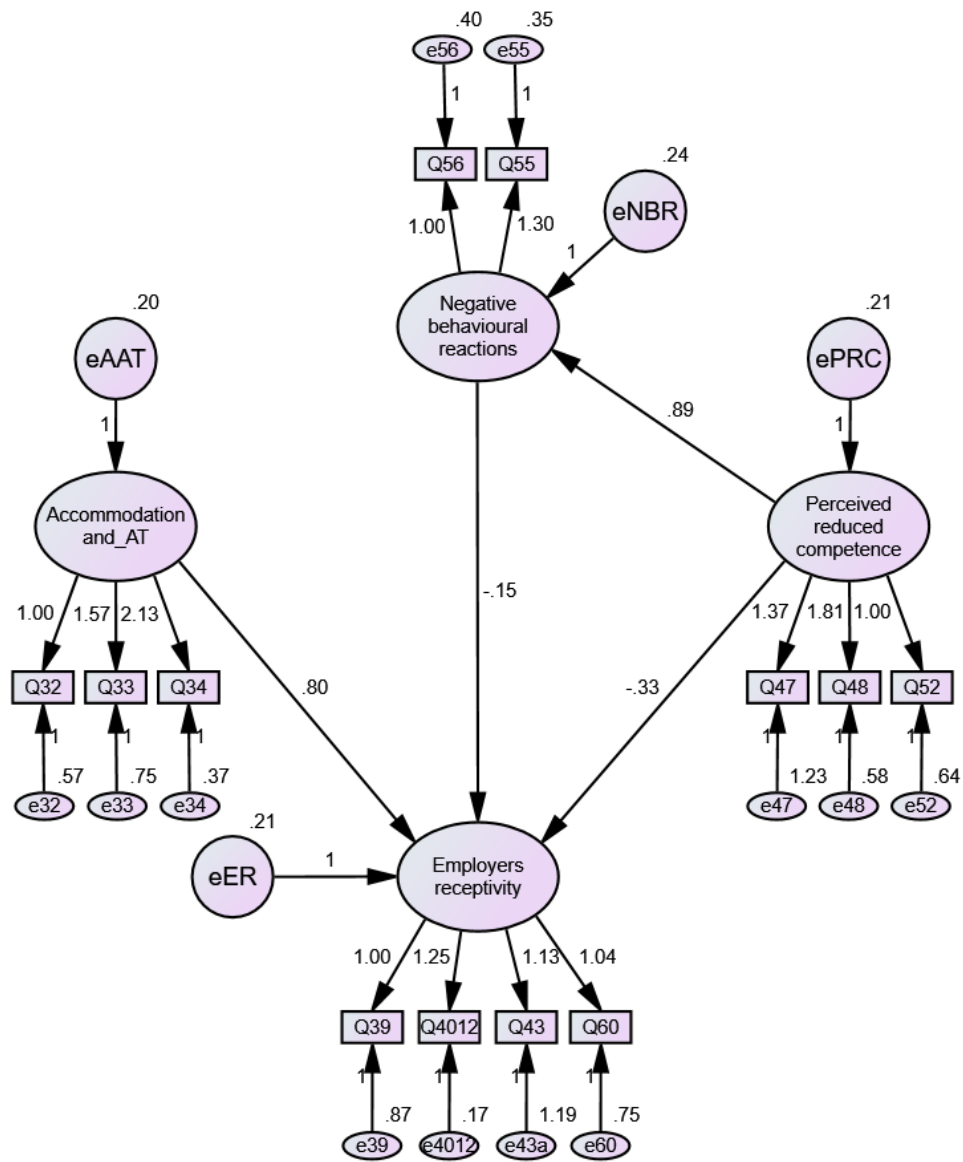
Figure 2FE SEM 2 unstandardised path diagram

Table 3E

SEM 2: Regression weights (unstandardised model)

			Estimate	S.E.	C.R.	P
Negative Behavioural Reactions	<---	Perceived Reduced Competence	.868	.166	5.238	> .0001
Employer's Receptivity	<---	Perceived Reduced Competence	-.338	.147	-2.292	.022
Employer's Receptivity	<---	Negative Behavioural Reactions	-.175	.099	-1.772	.076
Employer's Receptivity	<---	Accommodation and AT	.809	.146	5.560	> .0001
Employer's Receptivity	<---	Apprehension about Managing PWD	.070	.045	1.554	.120
Q34	<---	Accommodation and AT	2.123	.293	7.250	> .0001
Q33	<---	Accommodation and AT	1.579	.223	7.067	> .0001
Q32	<---	Accommodation and AT	1.000			
Q56	<---	Negative Behavioural Reactions	1.000			
Q55	<---	Negative Behavioural Reactions	1.319	.170	7.752	> .0001
Q54	<---	Apprehension about Managing PWD	1.000			
Q53	<---	Apprehension about Managing PWD	1.140	.591	1.929	.054
Q52	<---	Perceived Reduced Competence	1.000			
Q48	<---	Perceived Reduced Competence	1.776	.285	6.222	> .0001
Q47	<---	Perceived Reduced Competence	1.358	.243	5.589	> .0001
Q43	<---	Employer's Receptivity	1.127	.154	7.313	> .0001
Q40/1/2	<---	Employer's Receptivity	1.261	.139	9.071	> .0001
Q39	<---	Employer's Receptivity	1.000			
Q60	<---	Employer's Receptivity	1.023	.132	7.759	> .0001

SE = standard error CR = critical ratio P = probability



□ = Observed variable ○ = Latent variable → = Regression weight ○ = Error variance

Figure 3FE SEM 3 unstandardised path diagram

Table 4E

SEM 3: Regression weights (unstandardised model)

			Estimate	P
Negative Behavioural Reactions	<---	Perceived Reduced Competence		
Employer's Receptivity	<---	Accommodation and AT		
Employer's Receptivity	<---	Negative Behavioural Reactions		
Employer's Receptivity		Perceived Reduced Competence		
Q34		Accommodation and AT)	
Q33		Accommodation and AT	↓	
Q32		Accommodation and AT)	
Q56		Negative Behavioural Reactions)	
Q55		Negative Behavioural Reactions	?	
Q52		Perceived Reduced Competence)	
Q48		Perceived Reduced Competence		
Q47		Perceived Reduced Competence	}	
Q43		Employer's Receptivity	'	
Q40/1/2		Employer's Receptivity	'	
Q39		Employer's Receptivity)	
Q60		Employer's Receptivity	;	

SE = standard error CR = critical ratio P = probability