



**Determining female employees'
perception of the glass ceiling
phenomenon in South Africa's business
environment**

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the degree *Master of Commerce in Business
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DECLARATION

I, Margelize Williams (identity number: 8212230091087; student number: 12297240), declare that this research dissertation submitted to the North-West University, titled:

Determining female employees' perception of the glass ceiling phenomenon in South Africa's business environment,

is my own work, and that all sources used or quoted have been acknowledged and indicated by means of complete references. This dissertation has not previously been submitted by me or any other person for degree purposes at this or any other university.



7 December 2021

Margie Williams

Date

LETTER FROM THE LANGUAGE EDITOR

To whom it may concern

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Dear Mr / Ms

Re: Language editing of dissertation (Determining female employees' perception of the glass ceiling phenomenon in South Africa's business environment)

I hereby declare that I language edited the above-mentioned dissertation by Ms M Williams (student number: 12297240).

Please feel free to contact me should you have any enquiries.

Kind regards



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“He who did not withhold or spare even His own Son but gave Him up for us all, will He not also with Him freely and graciously give us all other things?” (Romans 8:32 – Amplified)

Margie Williams
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December 2021

ABSTRACT

Keywords: Glass ceiling, business environment, South Africa, females, female perception, glass ceiling perceptions, denial, resilience, resignation, acceptance

History tells us that females have worked in unrewarding jobs for lower wages due to traditional roles imposed on them. The opinion that males are the 'breadwinners' has been the undermining factor that views females' work as being less valuable and insignificant to males' work. Females realised that balancing work and family life was possible, and they strived towards a better education so that they could have better jobs. Although females' roles in the workforce have increased exponentially over the last few decades, this did not secure equal job opportunities between genders, and this inequality forms the foundation of the glass ceiling phenomenon and the scope of this study.

The glass ceiling is a corrupted bias that excludes females from having equal footing with males at top management levels within the business environment. The business environment is influenced by internal and external factors, also known as the macro- (external) and micro (internal)-environments. These environments may be indirectly or directly responsible for the functioning of a business and assist in identifying opportunities, usable resources, business growth and profit. Males have traditionally ruled the business environment and developed the rules, guidelines and social structure that reinforce the glass ceiling. This, consequently, strips females of their political, social and economic sense due to these customs that hinder their career advancement and social associations.

Currently, a wage gap of 40 percent exists; the ratio of female wages in relation to their male counterparts in the same position. In 2019, females occupied 24 percent of the senior positions globally, even though their involvement in the workforce is consistently increasing. Females make up 51.1 percent of South Africa's population, but only contribute to 43.4 percent of the workforce. While in society, male leadership skills and personality traits are recognised as the default, females are judged harshly and presumed not to be effective leaders when they also display these male characteristics. Therefore, female leaders are very scarce because they do not receive the same number of opportunities to demonstrate their potential.

One of the obstacles females face is the perception of the glass ceiling. Perception can be understood as the process of how an individual judges a current situation through her past experiences. Perception of the glass ceiling is influenced by four factors, i.e., denial, resignation, resilience and acceptance, as indicated by the career pathways survey (CPS), which was

implemented as measurement for this study. A quantitative (descriptive) research design was used, where the target population consisted of females working in the South African business environment with access to growth opportunities. A sample size of 110 was used to gather data through a non-probability snowball sampling method. A self-administered online questionnaire was distributed on social media sites to collect the data.

The results of this study revealed positive correlations between the CPS factors as confirmed by previous research studies. However, the statistical analysis revealed a further grouping of the CPS factors according to their factor loadings, which also shows a positive correlation between them. This is a novel contribution and an improvement of the original scale and provides a unique understanding of the South African context on how to address and shatter the glass ceiling.

Results revealed correlations between the CPS factors and marital status, qualification and management level. Females in domestic partnerships accept inequality easier and have less denial about it; they demonstrate more resilience and acceptance to seek promotion and growth. While females with higher qualifications have less denial and resignation towards promotion, they are more resilient and accepting, which make them more likely to shatter the glass ceiling. Although females in higher management levels demonstrate higher denial, resignation and resilience, they are optimistic and accepting of the challenges to seek promotion. Females in lower-level employment displayed a high acceptance towards work-life balance, and therefore they do not question the *status quo*.

The results of this study can assist businesses to effectively address, minimise or eradicate inequality in the business environment, by addressing females' perception of glass ceiling and establishing their place as needful and valuable in the business environment.

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CHAPTER 1

INTRODUCTION TO FEMALES' PERCEPTION OF THE GLASS CEILING IN THE SOUTH AFRICAN BUSINESS ENVIRONMENT

1.1 INTRODUCTION

History tells us that females have worked in unrewarding jobs for lower wages due to traditional roles imposed on them, which rendered them as less able and unequal to males (Honeyman & Goodman, 1991:608). This position reformed during World War I and II when there was a shortage of males, and consequently females had to enter the workforce. The result was that females had to step into positions that were formerly only occupied by males (Tekin & Keskin, 2017:307; Gluck, 2010). The post-War economy shifted towards the service sector, which is more inclusive and suited to female work, and created a social and economic benefit for all (Hakim, 1996:2). The cost for females to be excluded from 'skilled work' was demoting them to perform the low paying and low productive jobs but resulted in cracking some stereotypes females were bound by (Honeyman & Goodman, 1991:610; Hakim, 1996:2).

The *glass ceiling* phrase or thinking was introduced in a Wall Street Journal article in 1986, yet its presence has been proven in recent studies and remains a relevant topic (Kagan, 2018; Ertan & Cavlan, 2020:385). The phrase may be replaced by metaphors such as 'concrete walls' (Chin *et al.*, 2007:229), a 'labyrinth' (Eagly & Carli, 2007:63) or 'sticky floors' (Booth *et al.*, 2001:319), but it does not excel the progress towards a diverse business environment. According to Simpson and Altman (2000:195), female progress is blocked up to a certain level of the business hierarchy before they encounter inflexible barriers that will hinder their career advancement. Chisholm-Burns *et al.* (2017:312) identify the glass ceiling as a corrupted bias that excludes females from having equal footing with males at top management levels within the business environment. This is a loss for females and the business environment causing both not to reach their full potential.

The glass ceiling is defined as an "unseen, yet unbreachable barrier" that prevents females and minorities from progressing through the business hierarchy without consideration to their credentials (Federal Glass Ceiling Commission, 1995). The barrier is caused by unspoken prejudices such as age and culture, as well as religious and or political views (Arfken *et al.*, 2004:180; Sever, 2016:577).

For the purpose of this study, the term glass ceiling will be defined as a 'thinking' and prejudice that allow unspoken presumptions to discredit female credentials and block their progress along the business hierarchy, causing a reign of gender inequality in the business environment.

Globally, females encounter an increase in opportunities within the business environment with support from their governments (Davidson & Burke, 2011:9). They also feel change within their social and family roles, but these strides do not yet overshadow the deafening gender discrimination, stereotyping and male dominance that persist in the business environment (Mathur-Helm, 2006:324; Davidson & Burke, 2011:9).

Booyesen and Nkomo (2010:285) found that a “think manager, think male” theory exists that disqualifies females from possessing managerial characteristics that would lead them to success. This view is confirmed by Catalyst (2018), a non-profit organisation that advocates female advancement into leadership, which also points out that the gender imbalance is strengthened by the thinking that “women take care and men take charge”. Culture and policies controlled by male standards limit females within the business environment and cause some to be despondent and abandon their pursuit of career advancement (Mathur-Helm, 2006:324; Shetu & Ferdous, 2017:78). This is reflected in the Global Gender Gap Report that gives an annual index measure of gender equality in the areas of education, economy, health and politics. Recent reports show a small decline in the gender gap and growth towards acknowledging that talent is needed to progress females (World Economic Forum, 2017:vii). In 2020, the gender gap was 68.6 percent, which meant a 31.4 percent gap to close (World Economic Forum, 2020:5), with a slight decline to 68 percent in 2021 (World Economic Forum, 2021:5). The Global Gender Gap Index’s measurement of gender equality for the Middle East and North Africa (MENA) region had the lowest score globally in 2020 of 61.1 percent, only improving 3.6 points since 2006 (World Economic Forum, 2020:23); but decreased in 2021 to 60.9 percent and is the highest scoring region (World Economic Forum, 2021:26). Whereas the Sub-Saharan region in 2020 was at 68 percent of the gender gap closed and boasted that 21 of the 33 countries in this region had improved their score for 2020 (World Economic Forum, 2020:24), but declined in 2021 to 67.2 percent (World Economic Forum, 2021:28).

Females affected by the glass ceiling is not a new phenomenon. This is evident when looking at the early African chiefs who restrained female mobility from the land by letting male migrant workers do seasonal work and return, which assured a mutual dependence on rural resources. This shift from rural to urban living areas, known as urbanisation, required females to maintain their tribe’s agriculture and keep the rural ship floating (Sapire, 2000:76). Due to the increase of urbanisation combined with strict and traditional gender bias, gender equality has progressed slowly (Anyanwu & Augustine, 2013:415). Likewise, South Africa’s urbanisation during the early 1900s was due to the rush of the mining industry that warranted male labour. This forced females to adopt a ‘domestic’ role and rather perform service work that required fewer ‘skills’ (Sapire,

2000:77). A big turning point came in 1956 for female rights, when 20 000 females marched to protest the government's restrictive laws against females (Stats SA, 2017). Although the South African Constitution has a number of legislatures implemented to address and prohibit unfair discrimination on the basis of gender (Promotion of Equality and Prevention of Unfair Discrimination Act; Basic Conditions of Employment Act; Employment Equity Act; Preferential Procurement Policy Framework Act), it was only by 2013 that the gender equality bill was issued in South Africa (Department of Women, 2015:8; Gender Equality Bill 50, 2013). The bill describes gender equality as an equal pleasure of sharing freedom and rights, through the access of equal opportunities and resources. This is applicable to girls, boys, females and males (Gender Equality Bill 50 of 2013).

The most recent statistics indicate that females make up 51.1 percent of South Africa's population (Stats SA, 2020), but only contribute to 43.4 percent of the workforce (Stats SA, 2021). Only 11.8 percent of CEOs in 2017 were female compared to 7.8 percent in 2008 (BWASA, 2017), but increased to 17.3 percent in the 2021 census (BWASA, 2021). This indicates a slow progress rate towards closing the gender gap. Only 93 percent of businesses pay males and females equally in the same job; 88 percent had policies for non-discrimination in place; while 71 percent gave employees paid parental leave and 51 percent had flexible working hours (Grant Thornton, 2018). The absence of a 100 percent equality in pay shows that female contribution in the business environment is not viewed as equal to their male counterparts – that the playing field is not level but prejudged according to gender rather than the value of work output or merit. Sounder legislation needs to be in place to disallow inequality and not support the glass ceiling within the business environment.

From the above, it is evident that the challenges females face in South Africa's business environment are not that different from the rest of the world. Although females have joined many professions and have most of the freedoms that males have, gender inequality reigns in the business environment in various forms (Gluck, 2010; Amaechi, 2018:155), which causes an undesirable working environment, unequal treatment and unfair corporate practices that hinder effective business management (Sharma & Kaur, 2019:142).

This chapter will explore the problem statement of the study (section 1.2) which leads to defining the objectives of the study (section 1.3). A brief outline of the research design and methodology (section 1.4) is addressed and gives guidance as to what is focussed on in the literature review (section 1.4.1), in the empirical study (section 1.4.2), and the statistical analysis (section 1.4.3). The remainder of the chapter addresses the ethical considerations (section 1.5); provides a

chapter classification (section 1.6); the contribution of the study (section 1.7); and concludes the chapter in Section 1.8.

1.2 PROBLEM STATEMENT

The glass ceiling is inflated at top management levels as the 'men's club' (Simpson & Altman, 2000:195) or the 'good old boys club' which enables male growth to progress due to their networking (Chisholm-Burns *et al.*, 2017:316). Males traditionally rule the business environment and develop the rules, guidelines and social structure that reinforce the glass ceiling (Wrigley, 2002:48; Itty *et al.*, 2019:15). This, consequently, strips females from their political, social and economic sense due to these customs that hinder their career advancement and social associations (Srivastava, 2019; Yellen, 2020). This presence of a patriarchal culture, combined with meagre management skills, is the reason businesses are losing their female executives. Their needs, to be independent individuals within the business and contribute towards the business, are not met (Clark & Kleyn, 2011:203).

Therefore, females face a double barrier to advance in the business hierarchy, namely by overcoming the stereotypes of their leadership capabilities while performing exceptionally at it (Chisholm-Burns *et al.*, 2017:314). Instead of entertaining these unfair business cultures, they should be renewed by welcoming females to contribute their unique skills, which will enforce teamwork and cohesion within the business, leading to more effective and successful management of the business environment (Wrigley, 2002:47; Sharma & Kaur, 2019:142). Businesses that are diverse and gender equal benefit from mixed approaches towards problem-solving as well as a creative and innovative increase (Mishra & Mishra, 2016:61). The business environment consists of all internal and external factors that influence a business, either positively or negatively (Skripak, 2016:32; Toppr, 2019; Farooq, 2020). This environment is steered by the business management function, which is the activities performed to run a business and ensure their goals and objectives are achieved through organising people and using resources effectively (Hans, 2018:67).

The business environment will function effectively once they create a comfortable working environment, manage business operations, and capitalise on the different skill sets available. Excluding females is not only just a loss of opportunity to new ideas, wider viewpoints and perspectives that could benefit the business environment (Itty *et al.*, 2019:15), but it will also eventually affect business profits and ultimately have a negative impact on South Africa's economy (Clark & Kleyn, 2011:203; Mishra & Mishra, 2016:67). UN Women advocate standards toward gender equality and discovered that businesses who employ more females experience

increased effectivity and growth of their organisation (UN Women, 2018). Research suggests that due to the glass ceiling, females tend to work harder and have a more hands-on approach to males (Simpson & Altman, 2000:195; Itty *et al.*, 2019:15). Their management style is gentler, and they can attend to multiple tasks at the same time. These skills add competitive value and diversity to business conduct and management (Chiloane-Tsoka, 2010:2992; Sharma & Kaur, 2019:142). They are neurologically able to view problems holistically and are naturally more anxious, which makes this combination a 21st century requirement, according to Aranha and Saldanha (2019:496).

However, a global decline of females in senior positions in the business environment is evident (Catalyst, 2018). Although 51.1 percent of South Africa's population are female (Stats SA, 2020), they only occupy 44 percent of skilled positions such as managers and technicians; this percentage has not improved since 2002 (Stats SA, 2017). This proves that South Africa is still falling short of the Women Empowerment and Gender Equality Bill (50 of 2013), which requires a 50 percent representation of females in executive positions and inhabiting decision-making roles (Stats SA, 2017).

Doubell and Struwig (2014:539) found that South African females want to progress in their careers even if there are barriers influencing their success. One of these barriers is the perception of the glass ceiling (Ezzedeen *et al.*, 2015:363).

Perception is defined as the input made by an individual's sensory experiences that allow them to view the world around them and act within it (Sharma, 2014; Cherry, 2019). Therefore, perception can be understood as the process of how an individual judges a current situation through her past experiences. Concluding that female perception of the glass ceiling is influenced by four factors: *denial, resignation, resilience and acceptance*, as indicated by Smith *et al.* (2012:72). They found that female perception of the glass ceiling is founded on the four mentioned factors, which compare positive attitudes of advancing and report on the negative attitudes of advancing. This can assist businesses to identify gender gaps within their leadership (Smith *et al.*, 2012:77). Wrigley (2002:42) states that denial is a way that some females cope with the glass ceiling, rather than acknowledging its presence they believe it does not exist (Smith *et al.*, 2012:72). The impact that denial has on the glass ceiling perception is that females rather blame themselves for lacking what is needed than question the status quo of the glass ceiling (Wrigley, 2002:43; Balasubramanian & Lathabhavan, 2017:1132). Other studies also found that females believe that they have the same struggle as males in their pursuit toward leadership within the business environment (Mohammadkhani & Gholamzadeh, 2016:278; Singh & Malhotra, 2017:866).

Resignation is when females are overwhelmed and do not attempt to break the glass ceiling due to negative experiences in the workplace (Smith *et al.*, 2012:72; Mohammadkhani & Gholamzadeh, 2016:278). This causes a negative belief (Balasubramanian & Lathabhavan, 2017:1132) and influences female perception of the glass ceiling (Khedr, 2017:416). Other studies also prove that females lose interest in pursuing career advancement due to the belief that they will have a harder time advancing than males (Singh & Malhotra, 2017:866).

Resilience assumes that female beliefs can remove the glass ceiling (Mohammadkhani & Gholamzadeh, 2016:278), and they want to advance in their career (Smith *et al.*, 2012:72). It is regarded by Balasubramanian and Lathabhavan (2017:1132) as a positive belief of the glass ceiling and it causes females to be optimistic towards advancement and feel they can break the glass ceiling (Singh & Malhotra, 2017:866). Confirming this are Reed and Patterson (2007:99), who found that resilient female leaders' actions will correspond to their beliefs about opposing the glass ceiling.

Acceptance is when females prefer not to pursue different career levels and rather have life goals (Singh & Malhotra, 2017:866), also viewed as an explanation for them to not commit to developing their careers (Smith *et al.*, 2012:72). This has a negative influence on the glass ceiling and should be tracked (Balasubramanian & Lathabhavan, 2017:1132). Studies also find that acceptance is when females do not pursue career achievements and rather believe in pursuing a family-oriented life (Mohammadkhani & Gholamzadeh, 2016:278); this is seen as 'anti-career' and 'pro-family' (Singh & Malhotra, 2017:866).

In the 2015-2020 Strategic Plan issued by the Department of Women (South Africa), one of the main objectives of the policy mandate clearly indicates two important focus areas specifically with regard to females: (1) to establish an institutional framework for the advancement of the status of females and the achievement of gender equality, and (2) to advocate for the promotion of new attitudes, values and behaviour, and a culture of respect for females' rights as human rights in line with the policy (Department of Women, 2015:11). Numerous research studies have been conducted on the glass ceiling, which have indicated that this phenomenon is evident and present in all industries and all levels of business management. However, these studies are primarily conducted on the reality of glass ceiling within industries and its barriers, female leadership and job satisfaction, effects of gender diversity for female development and impact on business growth (Mathur-Helm, 2006; Minné, 2015; Grant Thornton, 2018; Itty *et al.*, 2019), but very little research could be found on females' perception regarding the glass ceiling within the South African business context. This proves that a gap exists in this specific field of research.

By considering the policy mandate objectives in the strategic plan issued by the Department of Women, as well as the fact that a significant gap exists in the research field based on the South African context, it is evident that the results of this study can contribute novel findings to the field of research. Furthermore, by effectively addressing the above gap, the results of this study can contribute to the development of strategies that can improve female participation in the business hierarchy to effectively capitalise on the advantages that females in top management levels can contribute to the management of the business. This can then assist government institutions to attain the objectives as set out in the Strategic Plan for females.

1.3 OBJECTIVES OF THE STUDY

The following objectives were identified in support of this study:

1.3.1 Primary objectives

This study's primary objective was to determine females' perception regarding the glass ceiling within the South African business environment.

1.3.2 Theoretical objectives

The following theoretical objectives were identified to achieve the primary objectives of this study:

- Define the business environment and review the literature on business management's role within it, discuss leadership and the role of female leadership in business management.
- Define female leadership and review the literature on female roles in society and its progression throughout history, and its contribution and challenges in business management.
- Define the glass ceiling and review the literature on its perspective globally and in South Africa, and the influence thereof on females in the business environment.
- Review the literature on the factors that influence females' perception of the glass ceiling.

1.3.3 Empirical objectives

The following empirical objectives were identified in conjunction with the primary and theoretical objectives of the study:

- Determine a demographic profile of females working in the business environment of South Africa.

- Determine the perceptions of females towards the glass ceiling in their current work or management level in the business environment of South Africa, with specific reference to denial, resignation, resilience and acceptance as factors that influence females' perceptions.
- Determine the relationship between the factors that influence females' perception of the glass ceiling within the South African business environment.

1.4 RESEARCH DESIGN AND METHODOLOGY

The dominantly used research designs are: qualitative, quantitative, explanatory (causal) and mixed-method research (Shukla, 2008:30). Qualitative research is subjective in nature and conducted within the natural setting to gain the in-depth understanding and meaning from those directly involved to address the research problem. The researcher is the primary instrument for data collection either through interviews, document analysis and observations (Vanderstoep & Johnston, 2009:167; Creswell & Creswell, 2018:43). Quantitative research addresses a research problem from an objective approach by making use of numbers, statistics, structure and control to address the research phenomenon. Data collection occurs by means of inanimate instruments (scales, tests, surveys, questionnaires or computers) (Leavy, 2017:9). Explanatory (causal) research answers the questions by illuminating what the cause (independent variable) and the effect (dependent variable) is. It is appropriate when the objective is to understand certain phenomena and is best measured by collecting data in controlled conditions (Shukla, 2008:46). Mixed-method research is a combination of the qualitative and quantitative research designs (Creswell & Creswell, 2018:43). In order to address the primary research question, *What are females' perceptions regarding the glass ceiling within the South African business environment?*, a quantitative research design will be executed in order to gain the perceptions of females pertaining to the research phenomenon.

1.4.1 Literature review

A comprehensive study of the existing literature was performed regarding glass ceiling factors affecting females in the South African business environment. The sources that were accessed included textbooks, newspaper articles, academic articles, the internet, dissertations, mini-dissertations and theses.

1.4.2 Empirical study

The following methodology facets formed part of the empirical section of this study:

1.4.2.1 Target population

The total group of individuals from where a sample can be taken is known as the target population (Fritz & Morgan, 2010:1303; McClave & Sincich, 2018:40). The targeted population of this study were females working within the business environment provided with growth opportunities in their organisation within South Africa. Females, throughout South Africa, who are business owners or working in a corporate setting, they can be members of The South African Council for Business Women (SACBW) and will be the aimed target of this study. The SACBW provide practical knowledge, exposure and opportunities to their female members (SACBW, 2018). This will give an effective account of this study's aim to assess females' perception of the glass ceiling within their work and at different management levels.

1.4.2.2 Sampling frame

The SACBW have a database of 800 females active within the business environment of South Africa (SACBW, 2018), they comprised the sample frame for this study (Darian-Smith & McCarty, 2017:102). Furthermore, the questionnaire was distributed within the researchers' personal networking circle on social media channels such as Facebook, LinkedIn and WhatsApp. Participants were asked to distribute it within their personal network of the same interest group on these social media channels.

1.4.2.3 Sample method

Non-probability (non-random) sampling relies on the unknown probability that a unit may be part of a sample, it is less rigorous and relies on the researcher's independent judgement rather than a random choice (Hair *et al.*, 2002: 350; Darian-Smith & McCarty, 2017:103).

Snowball sampling is a subcategory under non probability, by which potential respondents that fit the target population are personally identified to assist the researcher by supplying her with more suitable people to partake in the study (Leavy, 2017:80).

A non-probability snowball sampling method was used for this study to collect data from females that fit the target population and distribute the questionnaire on social media sites like LinkedIn and WhatsApp; and the SACBW randomly distributed the online questionnaire to their database, who are females within the business environment of South Africa.

1.4.2.4 Sample size

The sample size is dependent on the type and nature of the study performed. Where the research aims to solve a problem, a sample ranging from 300 to 500 units may suffice (Shukla, 2008:58),

a theoretical outlook requires a sample of 384 units to allow a study to run a 95 percent confidence at an allowance of 5 percent sampling error (Hair *et al.*, 2002:347). However, seeing that a standardised scale, which has already been validated by previous research, was used for this study, 300 will be distributed with the assistance of SACBW to comprise the sample size, and this will be representative of a part of the population of females within the business environment of South Africa (McCombes, 2020). After data collection, 110 online questionnaires were included for statistical analysis.

1.4.2.5 Measuring instrument and data collection method

Data for this study was collected through a structured self-administered questionnaire. The purpose of the questionnaire was to determine females' perception of the glass ceiling within the business environment of South Africa. The scale included in this questionnaire was adapted from the Career Pathways Survey (CPS) developed by Smith *et al.* (2012) to measure females' perception of the glass ceiling. The CPS instrument produced a validated four-factor scale of beliefs, namely denial, resilience, resignation and acceptance.

The questionnaire consisted of two sections (Section A & Section B).

Section A obtained the demographic information from the respondents. The questions in this section asked the respondents' age, marital status, education, current position and years of service. Questions and options have been combined and adapted from Tran (2014) and Minné (2015) to suit this study.

Section B measured the perception of the glass ceiling on females using the CPS scale that was adapted from Smith *et al.* (2012). Some of the items were viewed as sexist or harsh, so in order to minimise the emotional risk the wording was replaced with more appropriate phrasing to suit a South African sample, without losing the original intention. For this study, the CPS scale was adapted and changed to a four-point Likert scale asking respondents to rank their level of agreement with the given statement, ranging from one (1) strongly disagree to four (4) strongly agree. The use of a Likert scale assisted in determining the respondents' perceptions by rating their responses to the set questions. Providing multiple items gave more reliable and dependable responses (Leedy & Ormrod, 2021:183).

Although there are no rules on the number of items used, a minimum of four is suggested for reliable and consistent internal evaluation (Diamantopoulos *et al.*, 2012:447). This means that the middle category is omitted, which offers an 'undecided' response; this is useful where respondents do not have an opinion or awareness of the category. Without this option,

respondents are forced to decide and not stay neutral on the subject (Willits *et al.*, 2012:134) as was the intention of this study.

The questionnaire was piloted internally to a few individuals who met the criteria of this study. This tested whether the items were clear and to debrief that the questions were understandable for the target population to complete within the given timeframe. This test ensured the reliability of the scales used and was done prior to the actual distribution of the questionnaire to respondents. The data was reviewed and analysed for the final questionnaire. The final questionnaire was distributed by the SACBW's via their database to the respondents who will respond voluntarily and confidentially, and it was also distributed online to females who met the sample criteria.

1.4.3 Statistical analysis

The statistical analysis for this study comprised of the collection, organising and interpretation of the data to reveal patterns and trends regarding female perceptions in South Africa of the glass ceiling (Jaggia & Kelly, 2020:5). Methods for this study included:

- Inferential Statistics (factor analysis),
- Reliability of the scales (Cronbach's alpha),
- Validity of the scales (internal and external measures),
- Descriptive statistical analysis (frequencies, percentages, means and standard deviation),
- Correlation analysis (Spearman's rank order, t-test, effect sizes).

Table 1-1 summarises the statistical analyses, which was conducted to address the empirical objectives.

Table 1-1: The statistical procedure to address the empirical objectives of the research

Empirical objective	Statistical procedure	Purpose of analysis
Determine a demographic profile of females working in the business environment of South Africa.	Descriptive statistics	Descriptive analysis – this method gives a summary of the data collected, it gives structure and clarifies what the data is saying (Daniels & Minot, 2020:75).
Determine the perceptions of females towards the glass ceiling in their current work or management level in the business environment of South Africa, with specific reference to denial, resignation, resilience and acceptance as factors that influence females' perceptions.	Reliability and validity analysis Inferential statistics	Reliability and validity analysis – where the reliability of this study will give consistent results and the validity is when the test measures what it was intended for (Leavy, 2017:113). Cronbach's alpha (measuring internal consistency, to provide evidence that the scale in question is unidimensional). An α of 0.6-0.7 indicates an acceptable level of reliability, and 0.8 or greater a very good level. Factor analysis (principal axis factoring) to determine common variances.
Determine the relationship between the factors that influence females' perceptions of the glass ceiling within the South African business environment.	Correlation analysis	Correlation analysis – this evaluates two quantitative variables in relation to each other (Iuliano & Franzese, 2019:706). Spearman's rank order correlation analysis to measure the strength of association between variables. T-test to compare means of factors. Effect size gives the size of the difference between means, with Cohen's d.

1.5 ETHICAL CONSIDERATIONS

Ethical consideration for this study were very important and, by abiding within the guidelines, promoted the validity of this study. Due to the researcher's ethical responsibility toward the respondents and to the field of research, this study was conducted within the necessary ethical considerations. All aspects were taken into consideration to ensure the anonymity and protection of the respondents of the questionnaire (Vanderstoep & Johnston, 2009:12-14). The necessary permission was obtained from the SACBW to conduct the study through the questionnaires, by distributing them to their database. All respondents were asked to willingly partake in the study and were informed that they can withdraw from participating in the study whenever they felt so or experienced any level of discomfort with the questions being asked in the questionnaire. Identified respondents were kept confidential at all times. Ethical clearance to conduct the research was obtained from the NWU Faculty of Economic and Management Science (FEMS) research ethics committee (EMS-REC). The research project commenced once the requisite ethical clearance

number was obtained from EMS-REC. Prospective respondents were advised, in writing, of the purpose and context of the study, in addition to being informed that participation is entirely voluntary and that there was an option to withdraw from the study at any point, should they wish to do so. In this regard, the SACBW also acted as gatekeeper between the principal investigator and the respondents. A signed confirmation letter from the organisation that indicated their approval of making their database available for use to distribute the link to the questionnaire was included in the application for ethical clearance (Annexure A).

1.6 CHAPTER CLASSIFICATION

The chapter layout for this study includes the following:

Chapter 2: Literature review on females' perception of glass ceiling

The literature discussion in Chapter 2 follows on the previous chapter and continues to provide a theoretical framework for the objective set out in Chapter 1 by laying the basis for a comprehensive overview of the glass ceiling perception among females in the business environment. This is done by referring to definitions and comparing statistical findings of other studies in this field towards understanding females' perceptions.

Chapter 3: Research design and methodology

This chapter focuses on the questionnaire design and how it will be administered. Furthermore, a clear description of the research methodology and design that was followed is included in Chapter 3, by providing a clear outline of the sample size, population, sampling method, sampling frame and the research instrument.

Chapter 4: Results of the empirical analysis of females' perceptions of the glass ceiling

In order to effectively showcase the results for this study, the data is presented in figures and tables where applicable, to illustrate the results. The results are explained according to what the outcomes of the questionnaire delivered, and similarities or novel findings in relation to previous research are highlighted.

Chapter 5: Conclusions and recommendations on females' perception of the glass ceiling

According to what this study delivers in Chapter 4, it concludes a finding about the glass ceiling perception of females in South Africa within the business environment. Recommendations are

made that either confirm the evidence of the problem statement or give cause for improvement in terms of future studies to be conducted or topics to explore.

1.7 CONTRIBUTION OF THE STUDY

It is evident that the glass ceiling phenomenon manifests within the business environment worldwide and is not influenced by the type of industry. Although the level of its intensity varies in some organisations, many females are affected by the glass ceiling in their careers. Throughout history, females had to work for an equal place in society, but they were seen as less capable than their male counterparts. The unfair prejudices and bias standards that females are measured against, even today, taint the business environments thinking that females cannot perform or be comparable to males, and therefore they should not be allowed into their club.

Previous studies and literature reveal that the effect of the glass ceiling on females will in some cases make females more despondent to pursue careers, or in other cases serve as a motivator to excel and break through this barrier. There has been a small number of studies conducted on females' perception of the glass ceiling within a South African context; therefore, this study contributes to establish new insight about this phenomenon.

The value that females contribute to businesses cannot be overlooked and denied any longer, as this affects the growth of the business and the economy. By gaining insight into female perceptions, strategies could be developed to assist females to excel in the business hierarchy, ensure that businesses adhere to the gender gap of females in business that has been declining in recent years, and contribute towards achieving the programme on social transformation and economic empowerment.

1.8 CONCLUSION

Throughout history, females have been subjected to traditional roles that limited their participation in society, politics and the economy, which left them with basic jobs and lower wages than males. This is known as the glass ceiling, 'an unseen, yet unbreakable barrier' that limits females' success and growth in the business environment, despite their exceptional skills and contribution to business success. A female's personal framework by which she judges past events, i.e., perception, is influenced by four CPS factors: *denial, resignation, resilience and acceptance*. By implementing these factors, the researcher's primary objective was to identify their effect on females within the South African business context. The theoretical and empirical objectives were developed to address the primary objective of the research study.

The research design and methodology (Chapter 3) is explicated in this chapter, which are inclusive of the paradigmatic viewpoint, target population, sample frame, sample method, and sample size. A clear guideline is given with regard to the measuring instrument and the collection of data; along with an overview of the statistical analysis.

The ethical considerations for this study are elaborated on in section 1.5. Once ethical clearance was obtained, the research study commenced and the online questionnaire was distributed to the target population. Section 1.6 provides a brief outline of each chapter of this study (Chapters 2-5) and explains the aim of each section. Finally, section 1.7 reveals the contribution this study would make to the literature on females' perception in the South African business environment, which can be implemented to achieve equality that benefits the business and the economy.

CHAPTER 2

LITERATURE REVIEW ON FEMALES’ PERCEPTION OF THE GLASS CEILING

The theoretical objectives of this study, as set out in Chapter 1, will be discussed and addressed in this chapter. They are:

- Define the business environment and review the literature on business management’s role within it, discuss leadership and the role of female leadership in business management.
- Define female leadership and review the literature on female roles in society and its progression throughout history, and its contribution and challenges in business management.
- Define the glass ceiling and review the literature on its perspective globally and in South Africa, and what its application is on females in the business environment.
- Review the literature on the factors that influence females’ perception of the glass ceiling.

2.1 INTRODUCTION

Throughout the centuries, it has been proven that females can play a crucial role in the business environment, and that they have different skills, knowledge and approaches that can contribute to the effectiveness and success of a business (Coleman, 2010:14; Grossblatt, 2016; Un Women, 2018). However, females are marginalised in the workplace from obtaining leadership positions in many cases due to cultural and social backgrounds that dominantly employ males in senior positions, which creates fewer opportunities for females to advance in their careers (Aranha & Saldanha, 2019:496). This phenomenon is known as the *glass ceiling*; it is an unseen barrier preventing females to escalate within the business rankings (Fritscher, 2017; Amaechi, 2018:152). This is due to stereotypical beliefs that ‘male’ characteristics are the default by which females are then promoted or hired, discrediting their own attributes as valuable (Chisholm-Burns *et al.*, 2017:314). This discrimination and prejudice are in many instances executed subtly and sometimes detected only through the distribution of objective surveys (statistics) rather than the subjective experiences of those within the work context (Saxena, 2019). If gender equality is at the centre of economic growth, it will also influence society’s gender views (BWASA, 2017). The restraint on females to reach top management levels of the business hierarchy leaves businesses un-diverse (Saxena, 2019; Ertan & Cavlan, 2020:384), while a diverse business has progressive results, diverse thoughts, attracts labour talent and has substantial benefits that increase their

profit (Grossblatt, 2016; ILO, 2019). As in the opinion of Marilyn Monroe, a famous singer, who said that she does not mind living in a man's world, as long as she can be a woman in it (Hermag, 2018). Likewise, research reflects progress towards gender equality and breaking the glass ceiling (Bhojwani, 2020:55). However, as Coleman (2010:14) predicted, true change will come when businesses realise that their businesses are affected by the empowerment of females, which, in turn, leads to an increase in production, product quality and supply, which jointly causes an increase in business sales.

The primary objective of this study, as described in Chapter 1 (section 1.3.1), is to determine the perception of females regarding the glass ceiling in the South African business environment. This chapter addresses the theoretical objectives to gain an understanding of the factors that influence females' perceptions regarding the glass ceiling, such as denial, resignation, resilience and acceptance (section 2.4.7). Section 2.2 provides an overview of the business environment, discusses the role of business management in the business environment, provides context of leadership within the business environment, and lastly captures what female leadership entails within the business environment.

Thereafter, Section 2.3 provides an overarching definition of female leadership, looking at females' contribution towards business management, and the challenges females experience as leaders.

Section 2.4 defines the glass ceiling phenomenon, its impact globally and within South Africa, how glass ceiling is applied in business management, and how it affects females in business management. The chapter also explores what females' perceptions are about the glass ceiling and the factors that influence its functioning within the business environment. Lastly, the chapter will conclude with a summary of the literature as reviewed.

2.2 EXPLORING THE BUSINESS ENVIRONMENT

Business is known as the activities that deliver goods and services to consumers, with the intent to make a profit. The profit is the remainder (surplus) after expenses have been paid, not to be confused with revenue, which is the actual funds received (income) in exchange for the goods and services (Dewhurst, 2014:15; Skripak, 2016:27). The success of a business relies on two aspects: the individual and the environment. The environment refers to the surroundings wherein the business exists and functions, and also includes the involved individuals (Richardson *et al.*, 2019:58). The business environment refers to the management of a business through the direction given by the management activities and its functions to achieve the goals through effectively applying the available resources (Hans, 2018:67).

This following section provides the definition of the business environment (2.2.1), the role that business management has within the business environment (2.2.2), the context of leadership in business management (2.2.3), and the role of female leadership in business management (2.2.4).

2.2.1 Defining the business environment

The business environment cannot be pinned down to a specific thing, but demands a combination of forces, which makes it complex. As the business environment impacts the growth and profit of a business, it can either become a threat to or an opportunity for the business in terms of growth and sustainability (Hans, 2018:69). It is therefore critical that businesses understand their environment and the changes that occur so that they can apply the correct strategies to ensure its success and competitiveness (OpenStax, 2019:114; Penpoin, 2021).

The business environment is influenced by internal and external factors, also known as the macro- (external) and micro (internal)-environments. These environments may be indirectly or directly responsible for the functioning of a business and assist to identify opportunities, usable resources, business growth and profit (Hans, 2018:67; Toppr, 2019; Farooq, 2020). The external environment includes outside factors that the business has no control over – the government, economy, technology and trends (Skripak, 2016:30; Boddy, 2017:87). The internal environment, on the other hand, can be controlled by the business and consists of the business culture, structure and available resources, which include managers, employees, business location and the legal structure. These forces can be changed in order to adapt to the external factors (Richardson *et al.*, 2019:59; Penpoin, 2021). The internal environment operates through the primary functions of management, which form the basis of modern business conduct and include organising, planning, leading and controlling, which have originally been created to bring order and increase effectivity of the business environment (Northouse, 2016:13).

This will be explored in the next section as we explore the influence that business management has on the business environment.

2.2.2 Understanding the role of business management in the business environment

It is clear from the previous section that the management functions (planning, organising, leading and controlling) are applied in conjunction with resources to achieve the business goals, which function within the internal business environment. Therefore, it requires a manager to have a strategy, knowledge of technology and politics, and the ability to motivate the employees (Skripak, 2016:161). Business management guides the overarching decision process in a business and

involves managing human actions, thoughts and behaviours, which fluctuate and require continuous attentive skills (Kaur *et al.*, 2020:121). Management's decision-making impacts the business and its stakeholders (Richardson *et al.*, 2019:58). A business has a structure to arrange the people according to different management levels, whereby each level requires certain leadership responsibilities to achieve the business goals through appropriate communication from the relevant level manager (OpenStax, 2019:18). These skills and leadership attributes will be discussed in the next section as we explore what the leadership requirements are within the context of the business management.

2.2.3 Contextualising leadership within business management

There are three business management levels that give structure to the business and allow communication between the levels to ensure the business goals are attained, i.e. top-level management – in charge of the business performance and requiring conceptual skills; mid-level management (requires interpersonal skills), which oversees the lower-level managers and report to the top level; and lower-level management (require technical skills), which supervises and ensures that the work is executed correctly (Skripak, 2016:198; OpenStax, 2019:19). Effective leadership is the main drive towards the fulfilment of the directive functioning of management; it influences towards achieving a goal, and therefore leadership is not the same as management (Boddy, 2017:448). Whereas management provides structure and guides the attainment of the business goals, leadership forms a necessary part of the management role, but encompasses other attributes within the business environment (OpenStax, 2019:442).

Leaders evolve into their identity as 'leader' when they develop their internal senses – it awakens abilities to help them lead, and therefore, it is a process and not due to your given office as 'management' that you are able to lead (Amaechi, 2018:155). Therefore, leaders can be classified as individuals who have these developed senses to lead and will make use of opportunities to improve their skills, and naturally those who do not possess these skills will not advance within the business environment (Denmark *et al.*, 2018:25). Individuals who demonstrate leadership abilities are sought after by businesses as they would be an asset to the business and increase its profits (Northouse, 2016:1). Notably, leaders who are successful and effective display high levels of developed social skills and social intelligence, they tend to follow their intuition and judgment (Aldulaimi *et al.*, 2019:177; Butalia *et al.*, 2021:7). Intelligence (IQ) is what you are born with; it is divided into two types, namely emotional intelligence and social intelligence. Emotional intelligence is being able to recognise and manage your emotions, and is focused on the present moment, whereas social intelligence is learned in social situations, through experiences, failures and success – it is focused on the future and achieving a favourable outcome (Riggio, 2014; IE

Exponential Learning, 2017). Therefore, intelligence (emotional and social) has a direct effect on employee wellbeing and business conduct; it is displayed through leadership that relays the ethics and awareness of a modern business (Konye *et al.*, 2017:13). The ability to work with people and communicate effectively with stakeholders or staff is the backbone of successful leadership within the business environment (Farrel, 2017:436; Satterfield, 2020). Therefore, to effectively develop leadership, a firm grasp is needed of the weaknesses and strengths between the different types of personalities (Bertsch *et al.*, 2017:35; Farrel, 2017:436), because an inspiring leader has an overlap between their emotional intelligence and personality traits. Nevertheless, a personality type may influence a leader's style; this does not determine that some personalities could not inspire others or be effective as a leader (Bonau, 2017:618,619).

Consequently, the big five model is used universally to identify five core personality factors that envelope characteristics to clarify need, motivation and desire. These personality factors are openness to experience, conscientiousness, extraversion, agreeableness and neuroticism (also known by the acronym OCEAN) (Lim, 2020; Satterfield, 2020).

From the above, it is clear that in order to establish a leadership style that overcomes challenges and transforms people, it requires commitment and devotion; it is a process and not a chore (Bonau, 2017:622). People have to adopt a leadership identity, which only comes through experience (Miscenko *et al.*, 2017:605). However, in society, male leadership skills and personality traits are recognised as the default characteristics, but females are judged harshly and presumed not to be effective leaders when they also display these male characteristics (Amaechi, 2018:154; Denmark *et al.*, 2018:33). This double standard exists due to deep-rooted stereotypes that cause females to adapt their management styles if they want to be regarded as successful leaders (Durbin, 2016:30), even though research proves that female leaders are successful due to their expertise and balance of social and professional skills (Esser *et al.*, 2018:138; Place & Vardeman-Winter, 2018:170). This will become clear in the next section when we discuss female leadership roles in business management in depth.

2.2.4 The role of female leadership in business management

As explained above, social contradictions prove that females experience opposing pressures in leadership positions: as a leader they must be 'tough and masculine', but as a female they must not be 'too manly' in their efforts and approaches; they must remain 'feminine', but not 'soft' (Northouse, 2016:405). Females are limited through irrational stereotypes that insist they are sensitive and weak and unable to conduct themselves rationally, whereas research indicates females to be reliable, deep thinkers and able to notice details. Their abilities to do tasks well, be

decisive and provide rational solutions, set them apart to be highly successful in the business environment (Mishra & Mishra, 2016:61; Yahya, 2017; Aranha & Saldanha, 2019:496). It has been found that females tend to prefer the use of open communication, cooperation, consideration and respect, and not the alternative approach of 'command and control' as displayed mostly by males (Place & Vardeman-Winter, 2018:170). Females in leadership positions display 'soft skills' (female skills) that were previously thought of as unimportant, but now form the basis of modern leadership and ultimate business growth (Decker & Cangemi, 2018:30). While the business environment increases in competitiveness, they can no longer deny that female unique characteristics, attributes and leadership styles contribute to the overall success of the business (Chang & Milkman, 2020:6). Nonetheless, it has become an unwritten rule that females have to do more than their male counterparts in order to prove themselves as exceptional leaders in business (Pietrangelo, 2020), and therefore the next section will explore female leadership further to understand their contribution and challenges within business management.

2.3 AN OVERVIEW OF FEMALE LEADERSHIP

The pursuit of gender equality has been the topic of female activism over the last 100 years. This has led to the adjustment of some laws, rights and norms towards equality of females (Chisholm-Burns *et al.*, 2017:321; Fensterheim, 2017). However, our society is forged on a patriarchal system of male dominant views that perceive females as less abled than their male counterparts. The result was that females were banned from participating in political and economic activities, voting, basic and higher education, as well as to own property. Females' sole purpose was to fulfil family responsibilities, be the caretaker at home, and they were seen and treated as a male's 'possession' (Srivastava, 2019; Yellen, 2020).

During World War I and II, females were forced to enter male dominated jobs while the males fought at war. It gave females a taste of freedom and a purpose outside of their home life, which gave them a glimpse toward gender equality and an economic lift that resulted in a social benefit for all of society (Honeyman & Goodman, 1991:610; Fensterheim, 2017). Between 1960 and 1980, many movements and campaigns were made towards female rights that brought a shift in society to view females as crucial pillars for success and revealed their critical role within the broader society. This change supported female empowerment and *cracked* the stereotypical image (Hakim, 1996:2; Srivastava, 2019). The increased need for a two-income family resulted in the biggest shift towards female participation in the labour force. Females realised that balancing a work and family life was possible and they strived towards a better education so that they could have better jobs (Yellen, 2020). Although females' roles in the workforce increased exponentially over the last few decades, this did not secure equal job opportunities between

genders, and this inequality forms the foundation of the glass ceiling phenomenon and the scope of this study (Tekin & Keskin, 2017:307; Gran, 2019).

Growth has been at a glacial pace toward gender equality in the business environment, and although females comprise 50 percent of the workforce, they still face unequal opportunities and unequal pay compared to their male counterparts (Fruman, 2016; Reichelt, 2018). Once females realise the opportunities at their disposal due to advancements in technology, they can rule and conquer the business world and ultimately crack the glass ceiling of gender inequities in the workplace (Srivastava, 2019). Despite the rise in opportunities, females first have to recognise that gender inequality is a real and insistent problem that needs to be addressed (Napier *et al.*, 2020:1206).

In order to better understand female leadership, this section will look at defining it (2.3.1), their contribution to business management (2.3.2) and the challenges that females face within business management (2.3.3).

2.3.1 Defining female leadership

When leadership is defined as a process of influence on others to realise a set goal, it makes leadership possible and available to everyone, and it does not rely just on an individual's skills but makes it interactive and a transaction between the follower and the leader (Northouse, 2016:6). Though female leadership is complex and comes with constraints, it is also clear from previous sections that females do possess leadership traits that allow them to be an effective leader, someone who can adapt to change and establish diverse communication and value personality traits within a business (Farrel, 2017:443). This will become clear when we explore what female leadership contributes to business management.

2.3.2 The contribution of female leadership in business management

The reality is that females are becoming more active in the business environment, even though they still encounter difficulties to advance to executive positions, despite having the same or higher education and skills than males (Yahya, 2017; Denmark *et al.*, 2018:33). It is clear that females can be excellent leaders even in the presence of societal views regarding gender (Amaechi, 2018:165), and therefore organisations should focus on the advantages and benefits of females in the workplace and stretch toward gender diversity (Chang & Milkman, 2020:6).

Some unique benefits that females contribute as leaders to the business environment include: (i) females are known to be forceful and responsible in demanding situations, especially when they serve in top positions; (ii) their commitment is towards the organisation's success, and (iii) they

are reliable during tough times, such as raising and addressing tough topics that need attention (Durbin, 2016:31). Furthermore, females are also known to better manage crisis situations and have a reputation to bring about necessary change in a business environment (Glass & Cook, 2015:11). Females are less likely to negotiate and self-promote than males do; however, this does not mean that they are not effective or not committed to their work. Conversely, they are more likely to consider other's welfare and ethics in the business environment (Northouse, 2016:404). Female skills add value to a business and increase business diversity, which includes having a gentle management style and that they can address multiple activities at the same time (Chiloane-Tsoka, 2010:2992; Sharma & Kaur, 2019:142). Cooper and Lewis (1999:41) found that female attributes, such as effective communication, working well with people, relying on intuition and flexibility are stereotypical skills associated with females that will help organisations to adapt and excel and are seen as the signs of a good manager.

Saleem *et al.* (2017:309) deduced that females who are competitive should be considered by organisations for promotions; the business will benefit from female skills when they adapt their attitudes with regard to female stereotypes. Teams being led by a female experience a higher sense of belief in their organisation and its strategy, in comparison with male-led organisations (Chisholm-Burns *et al.*, 2017:314; Thompson, 2019). Business teams led by females and/or female entrepreneurs, positively influence the business achievements and its social drive in a strategic manner. They tend to adopt more family-friendly plans that ensure content employees (De Castro *et al.*, 2018). The business turnover is directly affected by females' level of commitment, which, in turn, is affected by gender equality (glass ceiling). Therefore, to increase profit and organisation commitment, gender equality should be decreased and eradicated in the business environment (Tiwari *et al.*, 2019:8).

2.3.3 Challenges of female leadership in business management

Studies conclude that females still encounter barriers in the business environment due to males who still perceive that females are not as capable as their male counterparts to fill top management profiles (Jauhar & Lau, 2018:173). This discrimination and inequality in the workplace are the result of barriers within an industry or the business culture itself, preventing female promotion, development, handling of advanced tasks, and consequently restricting their leadership potential (Denmark *et al.*, 2018:27; Saxena, 2019; Ertan & Cavlan, 2020:384). Glass ceiling is the term used to explain gender inequality, the limits females face when wanting to progress in the business environment towards the top level and leadership positions (Simpson & Altman, 2000:195; Aranha & Saldanha, 2019:496; Saxena, 2019). It is clear that gender plays a tremendous role in the lack of advancement of females in senior leadership positions within the

business environment – inequality in the workplace is a contributing factor to the ongoing challenges females face (Ertan & Cavlan, 2020:384). Although equality is defined as having the same rights, opportunities and status for members within a group or society (Collins English Dictionary; Oxford English Dictionary), it is clearly not the case when we look at glass ceiling as a barrier for females in business management.

The opinion that males are the 'breadwinners' has been the undermining factor that views females' work as being less valuable and insignificant to males' work (Durbin, 2016:20). This inequality has led to prolonging the progress in global, financial and environmental health and stability in many countries (Srivastava, 2019). When families need to adjust to economic and political changes, females are the backbone to help them through this transitional period as they are the caretakers of the elderly and children in most countries (Gran, 2019). Therefore, females are pivotal to a country's economic development (Clark & Kleyn, 2011:203; Mishra & Mishra, 2016:67). Many argue that female participation in the workforce is due to beliefs or their domestic abilities; it remains an issue of discrimination and a significant barrier for female career advancement (Durbin, 2016:24; Bhojwani, 2020:55). Barriers can include the wage gap, unequal opportunities, underrepresentation, and insufficient support to manage a career and their family life. If inequality continues, the potential of females will remain unlocked and the valuable contribution they can bring towards the economic advancement of their immediate environment and the broader society (Radhakrishnan, 2019:23; Yellen, 2020).

Ezzedeen *et al.* (2015:363) state that even with glass ceiling barriers, some females would pursue management levels, which is more often than not at the expense of them also having a family. While attempting to balance a career-family life, some females feel the need to seek out riskier work environments to prove their leadership skills (Glass & Cook, 2015:11). Nevertheless, female leaders are very scarce because they do not receive the same number of opportunities as their male counterparts to demonstrate their potential (Sud & Amanesh, 2019; Ertan & Cavlan, 2020:384). Excluding females from business will affect society negatively. When females are not allowed to pursue a career, they are found to not excel socially, which then delays societal growth overall (Yahya, 2017). The employment and promotion of females from diverse backgrounds give a business a basis to build toward success (Grossblatt, 2016; UN Women, 2018).

As stated above, a male-centred culture persists in the business environment, which causes females to feel excluded and to experience problems in the workplace (Durbin, 2016:24). Consequently, the business environment needs to understand that a diverse top level will form the basis for better decision-making and will ensure positive outcomes for the business (Chisholm-Burns *et al.*, 2017:313; Sud & Amanesh, 2019) because business profits and success

are affected by the business environment, which can be determined through strategic business decisions (Penpoin, 2020). It is therefore imperative for top management to perceive gender as a bottom-line matter rather than a task left up to human resources (ILO, 2019). As concluded by Chiloane-Tsoka (2010:2992), the business environment should adapt their culture and perceptions towards female managers who offer skills and knowledge unique to their gender in order to be successful and advance their diversity posture. Without the necessary support, females will be prone to pressure and scrutiny that can negatively impact their stress levels and cause their physical and mental health to weaken, resulting in females having a shorter leadership term in comparison to their male counterparts (Glass & Cook, 2015:11; Esser *et al.*, 2018:138).

Therefore, policies that impact female leadership will be explored in the next section to get an understanding of its hindrance or advancement of females within business management and the business environment.

2.3.4 Policies that impact female leadership

The World Economic Forum (WEF) predicted that female parity with their male counterparts would only be achieved in 100 years (García-Holgado *et al.*, 2020:1824). Currently, only 10 countries offer full equal rights and legal protection to females (Buchholz, 2021). While the 2020 Global Gender Gap report indicated that most countries are gender-equal in education, these countries still lack female participation in science, technology, engineering and mathematics (STEM). Therefore, the W-STEM Project was launched in Europe through the University of Salamanca in Spain to improve female participation and support toward STEM education programmes (García-Holgado *et al.*, 2020:1824-1825). Gender equality impacts economic growth and is a fundamental human right (World Bank, 2021:vii). The remedy can be found in national laws and international frameworks to attain gender equality. However, the key is the implementation and action taken by employers from the private and public sectors (UN Women, 2020:17). This section will further elucidate on some policies and laws currently being enforced globally and in South Africa.

The Organisation for Economic Co-operation and Development (OECD) is an international organisation with the goal to build better policies toward equality, prosperity, well-being, and opportunities for all (Kenton, 2020). The G20 comprises the European Union and the 19 biggest economies globally, consisting of central bank governors and finance ministers. The OECD has the policy to support female empowerment in the management of the private sector (G20/OECD Principles of corporate governance), which underlines the diversity needed in boardrooms (OECD, 2015:30). The OECD has four approaches to achieve female leadership: (i) minimum quota laws for females being on boards; (ii) disclosure rules of the gender composition of their

boards; (iii) the explanation or compliance of governance towards gender; and (iv) gender diversity targets on boards or in management (OECD, 2020:11).

As previously stated, The Global Gender Gap Index is introduced by the World Economic Forum (WEF) as an outline of gender inequality and benchmarks gender gaps on health, education, economics and politics. Countries are ranked to increase awareness of the challenges the gaps create or the opportunities that arise when they are reduced (World Economic Forum, 2020:8). UN Women has compiled company practices, called WE EMPOWER G7, to empower females through business conduct within the G7 countries (G7 is the world's seven largest economies grouped in an alliance to confront urgent global matters) (Progresso, 2018; Empower Women, 2019). The WE EMPOWER G7 is a three-year programme launched in 2018 to support economic growth by promoting females in the private and public sectors (ILO, 2018). The promotion of females takes place through two approaches: (i) managing of knowledge and having policy dialogues between the G7 countries; and (ii) engagement of the private sector and Women's Empowerment Principles (WEPs) to eliminate inequality for working females (UN Women, 2020:2). The report is compiled from research conducted by various parties (ILO, European Commission, Eurostat, OECD, and Equileap) that collect data on gender equality from the private and corporate sectors. Furthermore, the report also highlights areas that companies can improve and track their progress as they adapt their conduct (UN Women, 2020:2; Empower Women, 2019).

The World Bank compiles an annual report to identify regulations and laws that prohibit female opportunities in 190 economies, known as *Women, business, and the law* (Arekapudi, 2021). The report provides a benchmark of measurable advancement toward gender equality. The eight (8) indicators used to measure differences and practices incentivising female employment include entrepreneurship, marriage, mobility, workplace, assets, parenthood, pay, and pension. This report can be used to improve opportunities to expand on and reflect the legal environment for females globally (World Bank, 2021:3&23).

According to the UN, the South African government has committed to achieving gender equality by adopting the African Union's Agenda 2063 in cohesion with the Sustainable Development Goals (SDG) (UNSDGS, 2019). The commitment by the government obligates the implementation of interventions and programmes to achieve this goal (Benjamin, 2017:2).

The National Development Plan (NDP) is South Africa's map to achieve the SDGs and female equality and empowerment (Benjamin, 2017:2). However, any initiatives or policies towards female empowerment do not diminish the socio-economic impact that gender inequality has in

South Africa and the difficulty to measure and quantify issues that repress females (Mukorera, 2020:1). Over the last few years, there have been some efforts to change the working situation for females in South Africa (Benjamin, 2017:1). The Women Empowerment and Gender Equality Bill 50 of 2013 aims to achieve a minimum of 50 percent representation of females within decision-making capacities. However, this Bill was retracted in 2015 and not reinstated (BWASA, 2017). The South African Constitution and Bill of rights advocate for female rights, and the Commission on Gender Equality (CGE) was created to regulate actions that may discriminate against females (Mukorera, 2020:12). After a reshuffle, the Department of Women was formed in 2015 and aimed at achieving socio-economic empowerment and gender equality. It contributes to the NDP and implementing a gender-focused approach towards the needs of females in South Africa (Department of Women, 2015). The Business Women's Association of South Africa (BWASA) is the largest of its kind in South Africa. It is a non-profit organisation that empowers females in business in South Africa through opportunities and networking (Risner, 2012; Masombuka, 2018). They conduct a census that explores females in leadership; this is a tool for the private and public sectors to measure their practices and gender inclusivity and identify where they can improve (BWASA, 2017). The BWASA offers training and opportunities to improve female advancement in the business environment (Risner, 2012). They also assist companies in adapting their boards and offer corporate training to facilitate gender transformation within their organisation (BWASA, 2017).

Therefore, businesses should capitalise on the fact that gender diversity has economic and ethical value and increases the overall innovativeness of the business (Ritter-Hayashi *et al.*, 2019:16).

The glass ceiling will be explored in-depth in the following sections to understand its meaning and relevance within business management and the business environment.

2.4 THE GLASS CEILING PHENOMENON

Social expectations dictate that females should be exceptional and perform better than males in order to get respect or recognition within the business environment (Esser *et al.*, 2018:157). Although gender equality is about males and females being equally treated and having equal opportunities and pay (Accenture, 2019; Saxena, 2019; Sharma & Kaur, 2019: 143), evidence shows that glass ceiling has an effect on the roles of management, and the power and ownership of businesses (Songini & Gnan, 2014:188). Nevertheless, businesses who are gender equal benefit more and excel in creativity and problem-solving (Mishra & Mishra, 2016:61).

Schein (2007:16) found that after three decades of research on the glass ceiling, males still perceive females as less abled compared to them, to be successful managers. This results in

male networking (also referred to as the 'old boys club') excluding females to progress to top management levels in business (Srivastava *et al.*, 2020:225). The inequality for females in management is an unending and ongoing process and challenge. Breaking stereotypes of the female role in society contributes toward shattering the glass ceiling and achieving gender equality within the business environment (Bhojwani, 2020:55). Even though efforts to change toward gender equality are made, it is being achieved at a very slow pace, and therefore females are forced to work twice as hard as their male counterparts to achieve success (Fritscher, 2017; Sud & Amanesh, 2019). Changing laws are not enough to achieve gender equality. In order to diminish the glass ceiling, action needs to be taken not only by females, but even more so by governments, employers and academic institutes.

In this section, we will thoroughly explore the glass ceiling and its effects and its hold on females in the business environment.

2.4.1 Defining the concept glass ceiling

The reality of glass ceiling is experienced by females throughout different levels in the business environment. Apart from the effect of the glass ceiling, they also experience work anxiety, family responsibility, and societal pressures (Ezzedeen *et al.*, 2015:363). Therefore, the glass ceiling is defined as societal traditions and attitudes that hinder females to reach the top work positions or hinder the advance within their careers (Collins English Dictionary; Oxford English Dictionary).

These invisible barriers within the business environment are caused by our society, business culture and the corporate setting (Loden, 2017; Amaechi, 2018:152). The barrier caused by society is substantiated by the social role theory, which states that females are stereotyped due to their various roles in society (for example domestic duties such as cooking, childcare and sewing). This view limits females and infers that they do not have the attributes to take leadership within the workplace and the broader society (Eagly & Wood, 2012:466), and consequently influences business culture to emulate what society dictates about female roles (Bhojwani, 2020:55) and that female skills cannot be trusted to function within the business environment (Srivastava *et al.*, 2020:225). This is confirmed by the leadership categorisation theory through its belief that people automatically adopt a model by which they measure and perceive people's abilities to lead, which restrict their opinion of a person's ability to lead them (Tavares *et al.*, 2018:1). This proves that prejudice leads to stereotyping when employment is divided according to gender and can influence a society negatively (Eagly & Wood, 2012:459; Ertan & Cavlan, 2020:384).

Therefore, it is clear that both the leadership categorisation theory and the social role theory verify that these two processes are responsible for gender differences, mainly through the social power of behaviour and through culture. Therefore, what may be perceived as suitable gender behaviour is in fact learned through social models that are confirmed through society's structures of status and power (Amaechi, 2018:149). This illuminates why the glass ceiling subtly discriminates in all areas of female life, not just in the workplace where less qualified people pass her by on the corporate ladder (Mishra & Mishra, 2016:58; Pietrangelo, 2020), but also regardless of her geographic location. It is therefore necessary to explore the origin of the glass ceiling that has incessantly influenced the business environment across global borders.

2.4.2 A global perspective on the glass ceiling

In 1908, now known as International Women's Day, females protested in New York for improvement of their working conditions, hours and wages. More than 100 years later, some progress has been made, but sadly this is now measured by indexes to ascertain the growth numerically (The Economist, 2019). In 2018, the use of the glass ceiling phrase turned 40 years old. The original criticism was that females did not have sufficient experience and qualifications. This is less true today as females have managed to enter the workforce of all industries and conquer their work-life balance (Loden, 2017). However, the barriers and existence of glass ceiling are prevalent in developing and developed countries (Khalid & Sekiguchi, 2018:193) with the global representation of females at the top level not reflective of their participation in the workforce (Macarie & Moldovan, 2012:153). Globally, there is a slow increase: females are taking charge, entering top job levels, being business owners and even in charge of running countries, but they still experience many barriers on their way to the top and are not seen as equal to their male counterparts (Loden, 2017; Shetu & Ferdous, 2017:85). Though the numbers of females with skills entering the workforce are growing, it is not sufficient to address the disparities. Therefore, it has become more critical for businesses to focus their business models on female employability, leadership and career advancement, as observed by Hailey (2020). This resulted in some female careers being labelled as 'global talent', which means their career is internationally mobile, be it for short periods or long-term assignments. This causes females even more internal conflict by wanting to match their societal roles with their need to also grow their career; to which their male counterparts are oblivious and they cannot relate to it (Kirk, 2019:295). Their struggle is not due to their willingness, but rather from inadequate business support to access better choices and be globally mobile in their careers. Likewise, Shetu and Ferdous (2017:81) found that the number of females in top positions are low and that females have to work much harder than their male counterparts to prove they are worthy and capable, which is also confirmed by

studies that indicate that 88 percent of countries restrict females in their workplace regulations and constitutions (Fin24, 2019). In order to stay current and relevant, organisations need to adapt to a diverse workforce (Saleem *et al.*, 2017:309) as global markets are influenced by gender inequality when businesses are trying to expand their revenue sources in emerging economies. In effect, gender inequality and glass ceiling barriers affect organisations' bottom line (Coleman, 2010:20). Brink (2019) recognised that companies who went from no females in senior executive positions to 30 percent female participation, had a 15 percent increase in their revenue. This research study was conducted in 21 980 companies spanning over 91 countries. Therefore, a diverse workplace, which includes females to make strategic decisions, will not only ensure success for the business, but also for the broader society (Pai & Vaidya, 2009:111).

In order to gage the progress of females in the global business environment, the glass ceiling needs to be measured and compared numerically (The Economist, 2019). The Gender Social Norms Index (GSNI) indicates a measure of social beliefs that hinder gender equality in the fields of education, politics and work, providing statistics that represent 80 percent of the world's population. The United Nations Development Programme (UNDP) found in this index that 90 percent of males and females feel prejudice toward females (UNDP, 2020). Similarly, the Global Gender Gap Index (GGI) has been compiled yearly for the past 14 years to trail the gaps between females and males in the fields of education, health, politics and economics. This enables the participating countries to prioritise according to its specific context. According to the GGI (2020 report), 78 percent of adult males are in the labour force, compared to 55 percent of females. Currently, a wage gap of 40 percent exists; the ratio of female wages in relation to their male counterparts in the same position (World Economic Forum, 2020:4-5). In 2019, females occupied 24 percent of the senior positions globally even though their involvement in the work force is consistently increasing (Saxena, 2019). Catalyst (2020) reports, on the other hand, indicated that 29 percent of senior management positions globally are held by females.

An increase is currently experienced where females are being promoted to senior levels, more than their male counterparts, and the numbers of females moving into director level positions are higher than previous years. However, an alarming fact still remains that only one in five executive positions have a female at the helm (Belli, 2020). Regrettably, the numbers of females diminish as one climbs the corporate ladder. In 2020, females amounted to 47 percent of support staff, 42 percent as professionals, 37 percent as managers, 29 percent in senior management, and 23 percent as executives (Catalyst, 2020). The GGI for 2020 stands at a 68.6 percent gap, which implies a 31.4 percent gender gap to close (World Economic Forum, 2020:8). Furthermore, global figures of females in senior leadership roles differ based on the region: Africa stands at 38 percent

of females in leadership positions, the European Union at 30 percent, North America stands at 29 percent and Asia Pacific (APAC) at only 27 percent of females in leadership positions (Catalyst, 2020).

The UNDP proposes that adaptations should be made to policies, education and to change motivations, and these should be implemented by governments in order to oppose the biased beliefs as discussed in previous sections (UNDP, 2020). Although a number of legislations and growth have taken place, there is still a shortage of a 50 percent equality for females with their male counterparts (Hailey, 2020). It is evident that the glass ceiling affects females in all aspects of their lives: at home and at work. Females worldwide face prejudice and bias from both males and even other females (UNDP, 2020), which the recent global #metoo movement has highlighted and exposed the inequalities females have and experience in their professional and personal lives (Hailey, 2020). This global view is even shared and felt within the South African context, as will be elucidated in the following section.

2.4.3 A South African perspective on the glass ceiling

The first movement towards gender equality in South Africa took place in 1956 when 20 000 females marched to protest the government laws of inequality, which was a big turning point for females in South Africa regarding gender equality (Stats SA, 2017). Females were stripped from power in a political, social and economic sense due to social rules and gender customs that hindered them from employment prospects and social associations (Srivastava *et al.*, 2020:224; Srivastava, 2019; Yellen, 2020). Khwela *et al.* (2020:380) found the glass ceiling exists in the private and public sector of South Africa where females are underrepresented in top management. Although females have joined many professions and enjoy most of the freedoms that their male counterparts do, gender inequality still reigns in the South African business environment in various forms of the glass ceiling (Gluck, 2010; Aranha & Saldanha, 2019:496). Females in the South African business environment are barricaded by social and cultural views as well as through unequal policies in the workplace (Khwela *et al.*, 2020:380). Personal factors that have an influence on glass ceiling include education, family and their personality (Marhur-Helm, 2006:316). South African females were found to value the importance of professional qualifications and they are of the opinion that education is vital for growth in their work environment (Chisholm-Burns *et al.*, 2017:313). South African females exhibit the quality of wanting to reach top management levels, but despite their motivation and ambition, they are not reaching said top management positions due to hurdles caused by culture and male dominance (Sever, 2016:577; Supplied Content, 2019; Bhojwani, 2020:55; Kiaye & Singh, 2013:38). Communities, families and society benefit directly from female empowerment. This is achieved

by identifying both the productivity and reproductive abilities females have and making investments towards these skills (Gran, 2019). Accenture (2019) stated that female empowerment through equality and skills improvement could inject R319 billion into South Africa's gross domestic product (GDP) and create jobs. GDP is the measurement of a country's performance, which includes the total sum of produced goods and services within a year (Stats SA, 2013).

According to research conducted by Grant Thornton (2018), businesses would have to implement gender balance to handle disturbances better. This report extensively examined policies for businesses and government, which influence gender diversity. The results indicated that the existence of policies does not necessarily display diversity and progress, but that true change only takes place where the focus is on diversity and creating an 'inclusive culture', by changing the behaviour.

The Gender Equality Bill 50 of 2013 was ordered in accordance with the Constitution that provides for female empowerment and gender equality to be implemented through legislation and laws, towards female representation and their appointment within positions where they are the decision-makers (Gender Equality Bill 50 of 2013). The Department of Women stems from the South African Constitution and their mission is to bring about socio-economic change for females by developing gender equality and female empowerment (Department of Women, 2015).

The Business Women's Association of South Africa's (BWASA) latest census of 2017 gives a representation of females in South Africa's business environment. From 2015 to 2017, the number of female CEO's has doubled, from seven to 14. They found that 20.7 percent of directors and 29.4 percent of executive managers were female. Females only accounted for 11.8 percent of CEOs in South Africa (BWASA, 2017). By 2018, only 20 percent of businesses in South Africa did not have females present in their senior positions, and on a larger scale, only 29 percent of senior roles throughout the country were occupied by females (Catalyst, 2018).

It is clear from the above figures that the glass ceiling is the ruling factor of gender inequality in the business environment of South Africa; it would therefore be helpful to better understand and explore how it is applied.

2.4.4 The application of the glass ceiling within the business environment context

Society is made up of a range of different people; some differences cause groups to be disadvantaged and this is known as 'discrimination' (Swann, 2021), although equality provides a

benefit by eliminating discrimination and the false beliefs that justified it (Napier *et al.*, 2020:1204). Therefore, in the business environment, gender equality is consumed with equality with regard to recruitment, training of staff, remuneration and advancement opportunities between males and females (Sarvaiya & Eweje, 2016:138). Gender equality implies that freedom and rights are equally beneficial to both parties, and resources and opportunities are equally accessible by males and females alike (Gender Equality Bill 50 of 2013). In comparison with equality, diversity aims to promote the differences between people and celebrate them as positive and valuable means by which society's progress is enhanced. Therefore, diversity includes everyone and ensures that all people have the same chance at success (Itty *et al.*, 2019:6; Swann, 2021). Likewise, it also entails equality, which broadens the characteristics that influence the employee's management and employment (Sarvaiya & Eweje, 2016:138). Consequently, when equality and diversity are combined, it forms the basic rights of our society and offers all individuals the same opportunity to reach their potential without prejudice and discrimination (Swann, 2021). This will ensure businesses do not fall victim to 'group think', which produces unethical and unsound business practices, but rather expands the business demographic (Arfken *et al.*, 2004:184). This comes as a comfort to females that it articulates their success, which is not dependant on their likeness to males, but rather who they are (their identity) is acceptable within the business environment (Durbin, 2016:18). Ultimately, a diverse management allows a variation of ideas and opinions to embody the business (Arfken *et al.*, 2004:184; Itty *et al.*, 2019:15). However, in contrast is the glass ceiling that makes a distinction between genders within the business environment, which affects females' advancement in the business hierarchy, but they are held back by stereotypical behaviours and attitudes that unfairly discredit them (Simpson & Altman, 2000:195; Macarie & Moldovan, 2012:169; Aranha & Saldanha, 2019:496).

Barreto *et al.* (2009:16) emphasised that gender equality is not focused on achieving a representational figure within a business. However, the responsibility also includes providing conditions that encourage success and communicating diversity through the business culture. Employment equity holds the power to make visible cracks to the glass ceiling, which allow some females to break through but not enough to completely end the glass ceiling label (Van Zyl & Roodt, 2003:19). Nevertheless, Sud and Amanesh (2019) argue that a balance should reign within businesses that give males and females equal opportunity for input and promotions to ensure the talent of their employees stays within the business and is not solely based on one specific gender. The removal of the glass ceiling will cause gender equality in the business environment and society. A starting point could be to remove discrimination by remunerating and promoting people according to their skill level (Radhakrishnan, 2019:27). The International Labour Organisation (ILO, 2019) states that gender within senior management is balanced at a 40 to 60

percent weight held by either males or females, which clearly indicates that inequality reigns in the business environment. Powell *et al.* (2002:191) articulate that stereotypes would change towards equality when the advantage of female leadership is acknowledged and a shift in the percentage of females and males represented in management positions is equally distributed.

By identifying the differences between male and female leadership, as well as their commonalities, it can ensure sustainability for businesses to reach their goals (Mishra & Mishra, 2016:61; Amanesh, 2019). Subsequently, females are found to work harder and more pro-actively than their male counterparts; they perceive the glass ceiling as an opportunity to expand their own abilities and a process to filter out less skilled managers (Simpson & Altman. 2000:195).

2.4.5 Females and the glass ceiling in business management

Some factors that enable the glass ceiling, as found by Cotter *et al.* (2001:673), could include: career ladders, business policies, disregarding of laws and discrimination within the business. Furthermore, Sever (2016:585) similarly identified discrimination within businesses as: position of employment, gender, marital status, income and female expectations toward promotion. These are all contributing to the level of equality in the workplace. These barriers, inevitably, put females at a disadvantage, because their diverse roles are interpreted as a weakness and viewed as incompetency. This view will prevent organisations and females from reaching their potential (Chisholm-Burns *et al.*, 2017:312).

Consequently, females' work environment differs from that of males due to the significant differences in terms of what is expected from them within their work environment and responsibilities (Sever, 2016:585). These differences include, for example, females who are scrutinised on matters other than their work abilities (such as their physical appearance) and therefore female leaders undergo harsher evaluations (Chisholm-Burns *et al.*, 2017:314; Amaechi, 2018:155). Ndebele (2018:1598) determined that female managers were seen as incompetent by both male and female colleagues, which surprisingly resulted from cultural beliefs. This causes females to be envious of female colleagues, rather than supporting them (Sud & Amanesh, 2019). Therefore, it is evident that the measure of career success greatly differs between males and females. Males see power as motivation and it can be assumed that this is the reason why males fill most leadership positions in a business. Compared to this, females are motivated by having relationships with their colleagues, which makes them better career mentors than their male counterparts (Denmark *et al.*, 2018:32; Gino & Brooks, 2015). The increase of females at the top would provide them with the opportunity to voice their opinions and give their valuable inputs towards the leadership and management decisions of the business, while

contributing to the success thereof (Askarian *et al.*, 2020:47; Durbin, 2016:15). Therefore, females are adaptable to the male dominant behaviours and excel in their work relationships, which could be the key to their success in a male-driven environment (Esser *et al.*, 2018:138). This will be determined by their perception of the glass ceiling.

2.4.6 Females' perceptions of the glass ceiling in business management

Perception is defined by the Cambridge Dictionary (2020) as the opinion or belief of several people built on the appearance of things, being aware of things through your senses mainly by sight. Therefore, females can perceive the glass ceiling through their experiences dictated by an organisation's culture and by what they see to be true. Balasubramanian and Lathabhavan (2017:1132) found that the forecast of glass ceiling perception will be that of stress found within their work engagement, whereas Tekin and Keskin (2017:314) found it existed moderately with employees and is rooted in female family responsibilities, which put them at a disadvantage with their business obligations. However, their perceptions differ with regard to division, level of experience and gender. Research concludes on females' perception of the glass ceiling as follows: (i) it is influenced by their leadership style (Mohammadkhani & Gholamzadeh, 2016:280), (ii) it has a significant relationship between females from different hierarchy levels (Doubell & Struwig, 2014:539), and (iii) it negatively impacts and diminishes females' level of motivation, which ripples down and influences their organisational commitment negatively (Ayuni & Haryadi, 2018:29-30). Females' work satisfaction is consequently directly related to their perception of the glass ceiling within an organisation and affects their trust towards the business and whether they can achieve their goals (Srivastava *et al.*, 2020:217). However, it is imperative for organisations to realise that females' perception depends on the business environment, because females desire organisations to assist them with their profession, to be flexible towards their work needs and to provide support towards leadership and their success thereof (Clerkin, 2017). For this study, female perceptions were measured against four factors, in order to understand their attitudes toward glass ceiling, with regard to: acceptance, denial, resilience and resignation.

2.4.7 Factors influencing females' perceptions of the glass ceiling in business management

Glass ceiling perceptions are formed where business or industry is centred on a biased structure and culture (Cohen *et al.*, 2020:34). Khalid and Sekiguchi (2018:193) stated that the glass ceiling prevails in countries regardless of their development and whether males dominate the workplace. Isaac *et al.* (2012:84) stated that females who show assertiveness and male characteristics within their leadership could break the stereotype that assumes that only males can lead. However, Barelka and Downes (2019:24) found that good individual characteristics lowered glass ceiling

perceptions in contrast to hostile business cultures that increased perceptions. Srivastava *et al.* (2020:226) settle that glass ceiling perceptions increase where female abilities are not trusted, which is where their leadership and home-work-life balance was questioned.

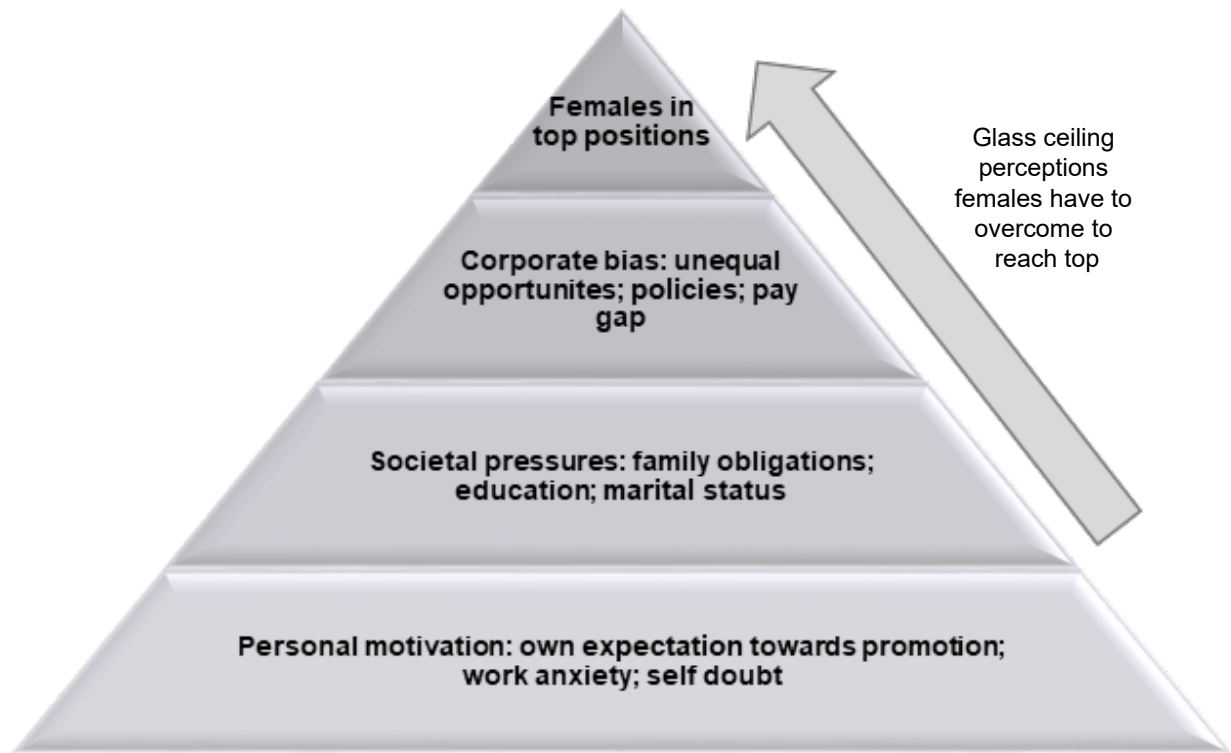


Figure 2-1: A graphic depiction of female career advancement due to the glass ceiling perceptions

Source: Author's own compilation

The Career Pathways Survey (CPS) was developed by Smith *et al.* (2012:68) as a measure of females' perception of the glass ceiling. Their model generated four factors of attitudes to the glass ceiling, namely acceptance, denial, resilience and resignation. The CPS compares the perceptions of promotion, through the positive perceptions of denial and resilience, with the negative perceptions of acceptance and resignation. Previous research studies have used the CPS and are satisfied that female perceptions of glass ceiling can be built on the four mentioned CPS factors of Smith *et al.* (2012:77). These measures should be used as a way to assist females and empowering them through the opposing views of glass ceiling perception, which include: (i) that it can be expectant, like denial and resilience, or (ii) doubtful, like resignation and acceptance (Balasubramanian & Lathabhavan, 2017:1132). This demonstrates the optimistic beliefs about female advancement that lead to positive actions and emotions to seek promotion, through the measures of resilience and denial, as well as the contrasting pessimistic beliefs that lead to negative actions and emotions about promotions, through the measures of acceptance and

resignation (Mohammadkhani & Gholamzadeh, 2016:279; Askarian *et al.*, 2020:47). Therefore, the positive attitudes should be promoted and the negative attitudes should be maintained through training to minimise fatigue (Balasubramanian & Lathabhavan, 2017:1132).

Furthermore, Bayati and Alavi (2018:271) found significance between females' perception of the glass ceiling and the four CPS factors. This was also confirmed by Askarian *et al.* (2020:41) who found that resignation and acceptance reduce advancement and denial, and resilience promotes career growth in females. In addition to the aforementioned, Khalid and Sekiguchi (2018:193) indicated that female personalities combined with the CPS model, confirm their success and progress in their careers.

2.4.7.1 Acceptance

Acceptance is defined as the agreement to a proposal on offer (Collins English Dictionary, 2021) and when receiving a fact as appropriate and tolerable (Oxford English Dictionary, 2021). Within the business environment, acceptance is the belief that females would rather pursue other goals than career advancement (Mohammadkhani & Gholamzadeh, 2016:278); and this pursuit of a family-life rather than a career could offer a plausible explanation as to why some females stop pursuing career advancement and growth (Smith *et al.*, 2012:72; Singh & Malhotra, 2017:866). Therefore, the importance of acceptance as part of the CPS is to ascertain whether females' perception is accepting of the glass ceiling, resulting in their fewer promotions (Askarian *et al.*, 2020:47; Bush, 2020:56), to make them aware that they do not have to choose between a career or family and retain their talents within the business environment (Singh & Malhotra, 2017:866). There seems to be no doubt that females are ambitious and want to be in top positions, but they experience higher concerns regarding promotion than their male counterparts (Sathyanarayana *et al.*, 2018:421). Females are forced to choose between a career and family and balancing both aspirations is the main barrier why females do not advance on the corporate ladder (Karmaker & Fatema, 2020:156), which leaves females stuck in lower paying positions, also known as a 'sticky floor', which denies females entrance to leadership positions (Reichelt, 2018). Research concludes that some females would delay their progress as business leaders to keep a balance between their career and family-life (De Castro *et al.*, 2018) due to the patriarchal mindset and society regarding female careers as inferior (Radhakrishnan, 2019:27).

Therefore, it is suggested that organisations should offer males and females equal opportunities towards job training and skills to advance their careers (Bush, 2020:63). Organisations benefit from a diverse workforce and this is accomplished by amending internal policies as well as through communication and career path guidance to females. If females are familiar with the

organisation's promotion policy, they can obtain growth, strive for career balance, be satisfied within their job, and be loyal toward the organisation (Sathyanarayana *et al.*, 2018:421).

2.4.7.2 Resignation

Resignation is defined as the acceptance of a situation that is inevitable yet unpleasant and undesirable as there is no other outcome (Collins English Dictionary, 2021; Oxford English Dictionary). Resignation toward the glass ceiling is based on social and organisational blockages that cause females to not pursue career advancements (Smith *et al.*, 2012:72; Bush, 2020:56). The belief that females suffer more problems than males when they pursue advancement in their careers, is believed to be the core to females not trying to break the glass ceiling (Mohammadkhani & Gholamzadeh, 2016:278; Singh & Malhotra, 2017:866). As resignation causes a decrease in females' career advancement, it is important to form part of the CPS to identify how glass ceiling management can be improved (Askarian *et al.*, 2020:47) and why they feel overwhelmed to not pursue advancement and how the business environment can adapt to create a hospitable environment of growth for all talent (Singh & Malhotra, 2017:866). Change within an organisations culture of the stereotypical views toward females will eliminate the glass ceiling, guarantee equality and encourage females to pursue careers that cause fewer resignations within organisations (Karmaker & Fatema, 2020:157).

Therefore, from the above, it is clear that acceptance and resignation are negative perceptions and mindsets towards female career advancement within an organisation and result in negative actions towards the glass ceiling (Smith *et al.*, 2012:72; Mohammadkhani & Gholamzadeh, 2016:278-279; Singh & Malhotra, 2017:869). Kirk (2019:295-296) identified that despite an increase in global career opportunities and mobility of females, they face an internal glass ceiling conflict that their male counterparts do not have to deal with. Therefore, organisations need to adjust their internal policies and stereotypical perceptions to unbiased and balanced working conditions to eliminate the acceptance and resignation of the glass ceiling in order to retain female talent (Karmaker & Fatema, 2020:156).

2.4.7.3 Denial

Denial is defined by psychology as when an unpleasant truth cannot be accepted by a person (Collins English Dictionary) also known as a defence mechanism to not confess that truth into realisation (Oxford English Dictionary). Denial is seen as the belief that males and females encounter the same problems within their search towards leadership positions (Mohammadkhani & Gholamzadeh, 2016:278; Singh & Malhotra, 2017:866). Believing the glass ceiling is a myth is the denial within the CPS model (Smith *et al.*, 2012:72; Bush, 2020:56), which grows optimistic

and interested that a female can pursue and grow her career in spite of inequality (Singh & Malhotra, 2017:866). However, this is seen as a serious problem according to Napier *et al.* (2020:1196), and denying it only causes females to believe that the system is fair and that their well-being is subjectively looked after. The belief that females are lacking and fall short rather than questioning the glass ceiling's existence is the perception that denial has on the glass ceiling that may cause females to work harder to reach top levels within the business environment (Wrigley, 2002:43; Balasubramanian & Lathabhavan, 2017:1132). Organisations should, however, strive to promote equality by supporting females by implementing policies that will enable them to better manage their boundaries between life and work, which will make their goals more realistic and attainable and also benefit the business (Kirk, 2019:296).

2.4.7.4 Resilience

Resilience is the durability and capacity to recover from complications (Oxford English Dictionary). Resilience toward the glass ceiling is that females feel they are able to go ahead and move forward (Smith *et al.*, 2012:72; Bush, 2020:56). It is an attitude that females can break the glass ceiling (Mohammadkhani & Gholamzadeh, 2016:278) and overcome the barriers in their careers; it is an optimistic view that causes them to work harder to get promoted and be equally footed with males (Singh & Malhotra, 2017:866). Resilience is the psychological ability that can be developed, managed and measured, which, according to Paul *et al.* (2016:318-319), is a vital skill that predicts organisational commitment. It determines how well employees cope and face adversities in their work. Isaac *et al.* (2012:84) found that resilience is preceded by awareness, and Tabassum *et al.* (2018:242) found resilience in female managers to be preceded by their past experiences within their work environment, adapting within their career and management of human resources, and the organisation process. Therefore, it forms part of CPS to know female's resilience and adaptability within their careers. Organisations should instil optimistic beliefs toward glass ceiling through proper support and training to females (Khalid & Skiguchi, 2018:207). Therefore, removing the limitations to females' career development ensures business development (Askarian *et al.*, 2020:47). Figure 2-2 illustrates the CPS factors that are used as a measure of females' perception of the glass ceiling.

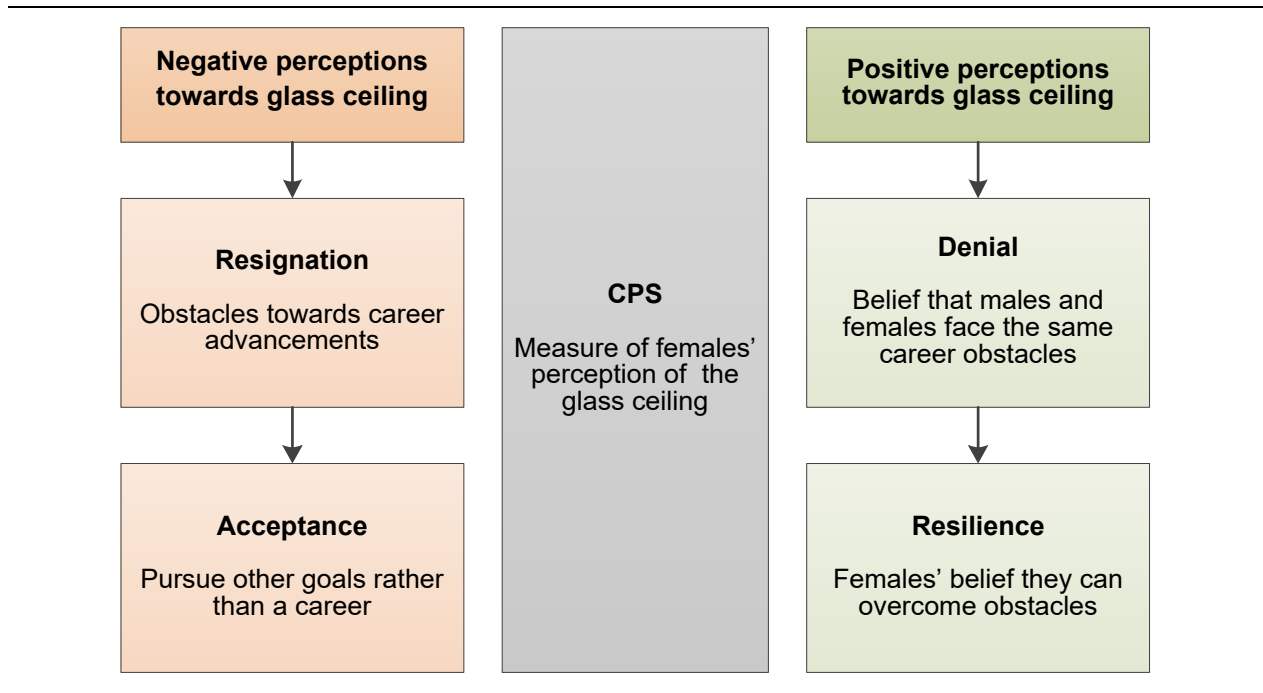


Figure 2-2: Graphic representation of CPS model to measure female’s perception of the glass ceiling

Source: Author’s own compilation

Consequently, from the above, it is clear that denial and resilience are viewed as positive perceptions and mindsets that females can reach top management levels; it promotes positive actions to seek promotion (Smith *et al.*, 2012:72; Mohammadkhani & Gholamzadeh, 2016:278-279; Bush, 2020:56). Even though Fray (2020:(i)) found that males and females do not differ in their career aspirations towards leadership positions, they differ on the existence of barriers that females face towards the top. However, if females increase in their denial and resilience of the glass ceiling, they will be positive and believe they can overcome these obstacles.

2.5 CONCLUSION

The business environment impacts the growth and profit of a business. It is influenced by internal factors (micro-, which can be controlled) and external factors (macro-, which cannot be controlled) and assists in identifying opportunities, usable resources, and business growth and profit. The internal environment operates through the primary functions of management – organising, planning, leading and controlling. When understanding the role of business management in the business environment, a manager requires a strategy, knowledge of technology and politics, and the ability to motivate the employees. The business structure arranges people according to different management levels that require certain leadership responsibilities to achieve the business goals.

Contextualising leadership within business management takes place on different levels within the business: top-level management is in charge of the business performance and requires conceptual skills; mid-level management requires interpersonal skills to oversee the lower-level managers and report to the top level; and the lower-level management requires technical skills to supervise and ensure that the work is completed. Good leaders have a balance between their emotional and social intelligence, which overlaps with their personality type.

Therefore, from the literature, it is evident that stereotypes insist that females are sensitive, weak and unable to conduct themselves rationally, while research finds females to be reliable, deep thinkers, and able to notice details, causing females to do more than their male counterparts to prove themselves as exceptional leaders in the business environment. Because society is forged on a patriarchal system of male-dominant views that perceive females as less able than their male counterparts, these male-dominant views specify that females' purpose is to fulfil family responsibilities, be the caretaker at home, and they are seen and treated as a male's 'possession'. These views were challenged during World War I and II, when females were forced to perform male jobs, which opened the way toward gender equality.

Defining female leadership implies certain constraints, although they possess leadership traits that allow them to be effective and can adapt to change and establish diverse communication and value personality traits within a business. The benefits of females as leaders include: (i) they are forceful and responsible in demanding situations, especially when they serve in top positions, (ii) their commitment is towards the organisation's success, and (iii) they are reliable during tough times, such as raising and addressing tough topics that need attention.

Glass ceiling and gender inequality limit females when they want to progress towards leadership positions in top level management of the business. A diverse top level will form the basis for better decision-making and ensure positive outcomes for the business because businesses' profits and success are affected by the business environment, which can be determined through strategic business decisions. The glass ceiling phenomenon manifests through social expectations dictating that females should be exceptional and perform better than males in order to get respect or recognition within the business environment; thereby defining the concept glass ceiling as societal traditions and attitudes that hinder females to reach the top work positions or hinder the advance within their careers. Prejudice leads to stereotyping when employment is divided according to gender through the social power of behaviour (social role theory) and through culture (leadership categorisation theory).

Global markets are influenced by the glass ceiling, and consequently indexes are used to gauge diversity in the workplace, and through the implementation of policies inequality can be minimised. The same challenges are felt by South African females regarding the glass ceiling.

Females' perceptions of the glass ceiling in business management is the opinion or belief of several people built on the appearance of things, being aware of things through your senses, mainly by sight, so females perceive glass ceiling through their experiences dictated by the organisation's culture and by what they see to be true. Females' perceptions were measured for this study through the following factors: acceptance, denial, resilience and resignation.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

The empirical objectives of this study, as set out in Chapter 1, will be discussed and addressed in this chapter. They are:

- Determine a demographic profile of females working in the business environment of South Africa.
- Determine the perceptions of females towards the glass ceiling in their current work or management level in the business environment of South Africa, with specific reference to denial, resignation, resilience and acceptance as factors that influence females' perceptions.
- Determine the relationship between the factors that influence females' perception of the glass ceiling within the South African business environment.

3.1 INTRODUCTION

Research is a scientific method of looking at intellectual work, through a detailed analytical process that results in making the defined field of study 'your own' by analysing and interpreting data (Fuller, 2010:1249; Hegde, 2015:10). It helps to understand existing data and to derive new knowledge that could benefit mankind, also contributing to a nation's progress through the improvement of their education, society, commerce and even individuals (Kale & Jayanth, 2019:2). Recognising and formulating a research problem are the start of the research process and are complex. However, it is a valuable process to the organisation or the researcher to expand the business and create future business and research opportunities (Mooi *et al.*, 2018:12). Therefore, it enhances one's knowledge toward developing new procedures and methods (Rosenstein, 2019:25). Due to the overlap between research design and data collection methods (Kumar, 2011:128), the research design and approach must be appropriate to the research problem in order to eliminate the chances of arriving at invalid or false results (Edmonds & Kennedy, 2017:1). Therefore, the aim of any research design is to produce a framework that provides valid and reliable information to address the research problem (Hair *et al.*, 2002:21; Dawson, 2009:14; Malhotra *et al.*, 2017:61). The research methodology is the tools used by the researcher to carry out the study (Leedy & Ormrod, 2021:32), and it is dependent on the chosen research design, which determines the measurement of variables, the collection of data and the analysis thereof (DeForge, 2010:1253).

Research is categorised into three (3) groups, namely: philosophy, praxis and ethics. The philosophy part of research looks at ‘what we believe’ and comprises three elements: paradigm, epistemology and ontology (Leavy, 2017:11). Paradigm is a framework or worldview used as a perspective to guide a research process through set assumptions (Cohen *et al.*, 2018:8; Creswell & Creswell, 2018:46). Epistemology is our belief of how research is done, i.e., the understanding of the relationship between researcher and participant; whereas ontology is our belief of the world and how we can interpret or predict its patterns (Saunders *et al.*, 2016:127).

The second category of research is praxis, which looks at ‘what we do’ and comprises the theory, methodology, design and methods of the research study (Leavy, 2017:11). The last (third) category is ethics, combining both philosophy and praxis, it focuses on the ethical conduct and values, what is right and wrong, for the study at hand (Dawson, 2009:149; Cohen *et al.*, 2018:111). This requires the use of quality methods in order to encourage truthfulness and reduce errors (Nielsen *et al.*, 2020:35).

This study aimed to determine female employees’ perception of the *glass ceiling* phenomenon in the South African business environment. Chapter 2 provided an overview of the literature regarding the research problem in question, with specific reference to defining the business environment, understanding the role of business management in the business environment, contextualising the role of female leadership in the business environment, and describing the glass ceiling phenomenon and females’ perception thereof in business management. Chapter 2 also elucidated on the factors influencing females’ perception of the glass ceiling in business management. Empirical testing comprises the research methods used for the empirical contribution of the research study. Furthermore, empirical testing presents and explains the data gathered through the specific data collection process and concludes the results.

The purpose of this chapter (Chapter 3) is to explain the research design and methodology (section 3.2) executed in this study. Furthermore, this chapter also includes a detailed outline of the sampling technique (section 3.3), the data collection strategy (section 3.4), the preliminary data analysis (section 3.5), and statistical analysis (section 3.6), through the validity and reliability of the study.

The following section explains the research design, which provides structure to the search of a response to the research question of this study pertaining to females’ perception of the glass ceiling in South Africa (Edmonds & Kennedy, 2017:2).

3.2 RESEARCH DESIGN AND APPROACH

Research design is concerned with identifying and formulating the research problem (Mooi *et al.*, 2018:13). The research design serves as a link between the collected data and answering the research question through a viable conclusion (Yin, 2018:58). It is a logical plan that guides the researcher through approaches to address the research question, and therefore is a very crucial part of the research methodology (DeForge, 2010:1252; Mukherjee, 2020:49). A research design has two objectives: (i) to identify and implement procedures as a blueprint of the study (data collection and analysis), and (ii) to highlight the value of the procedures so that it is performed accurately, objectively and with validity (Kumar, 2011:96; Turner *et al.*, 2017:243; Bordens & Abbott, 2018: 125). Consequently, the research design comprises the objectives, data collection (sources and type), sampling method, timetable and a budget (Shukla, 2008:29).

The purpose of a research design is to provide detail on the procedures and plan of the research study, relating to the method to collect and analyse data (Creswell & Creswell, 2018:392). The most frequently used research designs are categorised as exploratory research (qualitative data collection), descriptive research (quantitative data collection) and causal (explanatory) research (Hair *et al.*, 2002:41; Shukla, 2008:30) and mixed-method research (merged elements of qualitative and quantitative approaches) (Leavy, 2017:9; Creswell & Creswell, 2018:43).

The main objective of exploratory or qualitative research design is to explore the identified research problem that may lead to possible opportunities (Mooi *et al.*, 2018:14). Qualitative research is used to explore and understand the meaning people assign to experiences – to gather an in-depth knowledge of the subject through the participants' view (Vanderstoep & Johnston, 2009:166; Burns & Veeck, 2020:122). The exploratory methods to collect data in this design may include interviews (to gain access to respondents' beliefs and feelings), case studies (designed to explore an event or individuals pertaining to the study field, bound by the activity and time), observation (an individual's behaviour is noted and recorded), analysis (by interpreting patterns to conclude the results) and projective methods (based on psychological tests that determine hidden connections in the participant's mind) (Shukla, 2008:37; Cohen *et al.*, 2018:314; Creswell & Creswell, 2018:43,382; Jaradat, 2018:247). However, these methods can be challenging to interpret and limited in terms of validity and reliability, because the researcher is the principal instrument for data collection and this method is subjective in nature (Staller, 2010:1160).

A descriptive or quantitative research design aims to describe and quantify data through statistical analyses (Shukla, 2008:32; Darian-Smith & McCarty, 2017:98; Mooi *et al.*, 2018:17). Results can be changed into statistical numbers and graphs that will assist in answering research questions

(Hair *et al.*, 2002:241; Leavy, 2017:87). Quantitative research uses numerical analysis to quantify the research problem through measuring variables, the relationship between the variables and to establish correlation or causal relationships. This is measured with specific instruments, such as experiments or questionnaires (surveys), by using statistical procedures to analyse the data (Bordens & Abbott, 2018: 40; Creswell & Creswell, 2018:44). Methods used in quantitative research to gather data are experimental (testing a hypothesis, how a variable will affect an outcome) or non-experimental (questionnaires) (Leavy, 2017:94). Experiments observe the impact of a manipulation on a variable, testing a specific hypothesis (Bordens & Abbott, 2018: 100). Experiments can further be sub-categorised into pre-experiments (study focused on a single group), true experiments (randomised subjects) and quasi-experiments (naturally assigned groupings) (Leavy, 2017:97). Questionnaires (non-experiments) provide insight into attitudes, trends and opinions of respondents through standardised questions and can be applied through market research, census, polls on political or public issues, or questionnaires (Edmonds & Kennedy, 2017:133; Burns & Veeck, 2020:156). Additionally, descriptive research questionnaires have two sub-approaches, namely cross-sectional design, and longitudinal design. In a cross-sectional design, the respondents are measured once at a certain point in time; while in longitudinal design, measures are taken repeatedly of the same respondents over a time period (Bordens & Abbott, 2018: 361; Burns & Veeck, 2020:67).

The emphasis of causal or explanatory research is to study a problem so that the causal relationship may be established between the variables (Saunders *et al.*, 2016:176). It tries to provide a reason for an association or interdependence between variables and answers the question of 'why' (Kale & Jayanth, 2019:9) 'If-then' statements are used to best manipulate the variables causality, and therefore this method is only used when knowledge about the research problem is already available and a causal relationship is needed between the variables of the research objectives and the problem, which is mainly obtained through experiments (Burns & Veeck, 2020:70). Causal relationships can be classified as direct (impact on situation), indirect (chain of links), complex (chain of links that do not follow each other directly) or a combination of direct and indirect (Joshi, 2019:76).

Mixed-method research integrates both the quantitative and qualitative methods, which results in a complete view of the question under investigation (Leavy, 2017:9; Jaradat, 2018:247; Burns & Veeck, 2020:122). This method leads to added awareness beyond what is provided by either qualitative or quantitative data on their own. The researcher interprets the data that is collected through questions and measures (Creswell & Creswell, 2018:43; Cuervo-Cazurra *et al.*, 2020:152).

For the purpose of this study, a quantitative (descriptive) research design using a questionnaire method was used (Leavy, 2017:100). Furthermore, a cross-sectional approach for collecting data was utilised, in order to interpret the results through statistical analysis and to reflect a valid observation of females' perception of the glass ceiling within a South African context (Creswell & Creswell, 2018:392). This quantitative method is considered more reliable and valid due to the use of severe analysis methods that hold higher merit for decision-making (Shukla, 2008:54).

After the research question is formulated and the research design is established, the next step in the research process is to establish the sampling strategy (Bordens & Abbott, 2018: 223). The following section will provide insight into the sampling strategy as part of the research process.

3.3 SAMPLING STRATEGY

Sampling is the selection of respondents that fit the study profile, to find a representative sample in order to attain the research goal (Vanderstoep & Johnston, 2009:26). The aim is to find an accurate representation (sample) of a set population through selection, retrieval and capturing of its data (Malhotra *et al.*, 2017:61). A population contains the complete group that is of interest to the research study, whereas the sample is a subgroup of people from the population (McClave & Sincich, 2018:34; Jaggia & Kelly, 2020:220). The sampling strategy is therefore defined as the process of identifying a number of units (the sample applicable to the study) that are chosen from the larger population to make a representation on a smaller scale of the units from the study (Shukla, 2008:55; Leavy, 2017:77). The expectation is that the smaller group will reflect a true finding of the larger group, which is an indication of the research design's validity (Fritz & Morgan, 2010:1302). In order to effectively generalise the results onto the larger group of units, it is imperative to ensure the random selection of the respondents, to enhance an equal opportunity for each participant to be included in the sample (Rea & Parker, 2014:140; Edmonds & Kennedy, 2017:19; Bordens & Abbott, 2018: 223).

After the sample strategy is selected to generate data, the target population is the next step to be identified so that the sample can be drawn from it (Joshi, 2019:90).

3.3.1 Target population

A population is the total sum of all people to whom the research study applies and the findings can be generalised (Vanderstoep & Johnston, 2009:26). It plays a significant role in the research process, as it is logistically impossible to gather data from the whole population (Edmonds & Kennedy, 2017:19). Therefore, the target population is defined as the units whose characteristics serve as a representation of the whole population, in order for a representative sample to be taken

(Hair *et al.*, 2002:366; Fritz & Morgan, 2010:1303; McClave & Sincich, 2018:40). The target population for this study was defined as females working in the South African business environment who have access to growth opportunities within their organisation.

After establishing the target population of the study, it is important to establish the sampling frame from where the sample can be drawn, to make up the research population (Persaud, 2010b:1215). The next section discusses the sampling frame.

3.3.2 Sampling frame

The sample frame consists of the eligible group within the population from which a sample can be drawn that will make up the study's population (Hair *et al.*, 2002:682; Vanderstoep & Johnston, 2009:26; Darian-Smith & McCarty, 2017:102). Studying the sample rather than the whole population permits less data needed and ensures better quality of data; it allows the researcher to study a larger scope of variables (Fritz & Morgan, 2010:1304). When samples are not appropriately selected, they do not support the potential outcome of the research, and this is called sampling error (Joshi, 2019:91). Sampling error is very important to relay the statistical confidence and variance of the research results; it conveys an average estimate difference of results from sample to sample (Losh, 2010:1312). These errors occur due to differences between the sample mean (estimate of the population mean) and the population. Non-sampling errors, however, occur through human error, such as a lack of knowledge of the population, ineffective approaches to the collection, and tabulation of data, comprising of response and non-response errors (Joshi, 2019:91; Malhotra *et al.*, 2017:82). From the above it is therefore clear that a sample frame requires a clearly defined target population to draw a representable sample from (Saunders *et al.*, 2016:177).

For the purpose of this study, the sample frame consisted of females within the South African business environment. These females were members of business associations or groups on social media networks. The online questionnaire was distributed among females within these associations or social network groups.

The next section will look at sampling methods to assist with the effective selection of samples (Joshi, 2019:89).

3.3.3 Sampling method

Researchers use sampling methods to select a sample from the population. A faulty selection could lead to erroneous collection or analysis of the data, which regulates the reliability of the findings (Fritz & Morgan, 2010:1303). Choosing a sampling method rests on the study's

objectives, resources, the targeted population and the statistical analyses necessary to interpret the outcome. The classifications of sampling methods are probability sampling (random), non-probability sampling (non-random), and mixed sampling (Shukla, 2008:65; Rea & Parker, 2014:177). This is displayed in Figure 3-1 below.

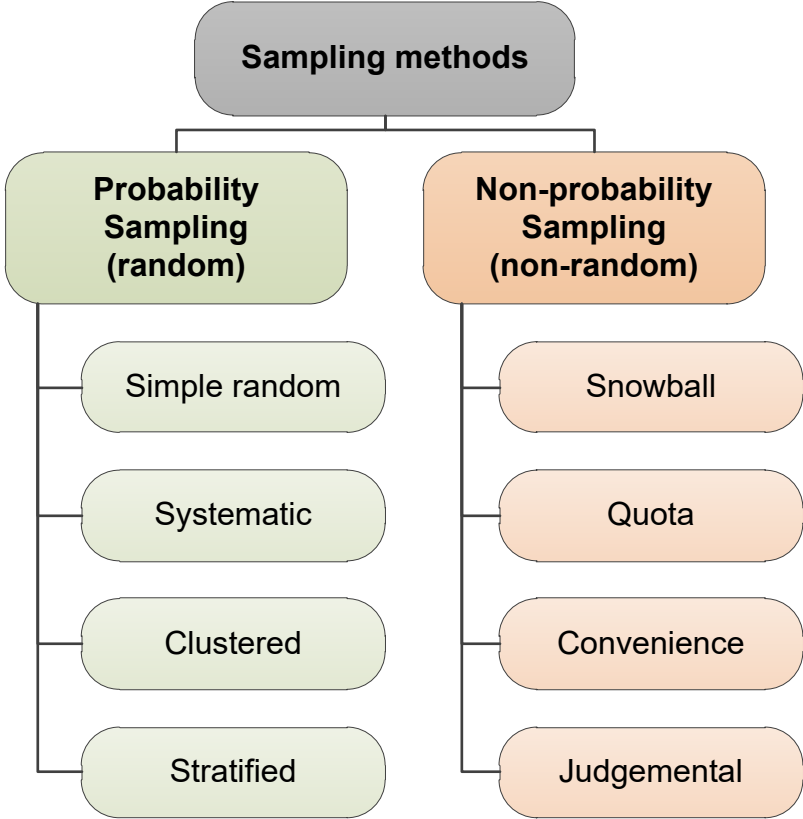


Figure 3-1: Sampling methods

Source: Author’s own compilation

Probability (random) sampling design requires that the sample has an independent and equal chance of inclusion (Darian-Smith & McCarty, 2017:102). The strategies can be categorised as simple random sampling, systematic sampling, cluster sampling and stratified sampling (Kumar, 2011:194; Daniels & Minot, 2020:18). In simple random sampling, each person in the population stands an equal chance of being selected (Joshi, 2019:92), whereas in systematic sampling, the selection is dependent on the sample size, and every n^{th} person is selected at systematic (regular) intervals (Iarossi, 2006:104; Saunders *et al.*, 2016:289). In cluster sampling, the population is divided into clusters according to regions and then the sample selection is taken randomly (Edmonds & Kennedy, 2017:20). Similarly, stratified sampling divides the population into groups according to homogeneity (similar in kind or characteristics) and then selects the sample randomly (Jaggia & Kelly, 2020:222).

Non-probability (non-random) sampling methods depend on the unknown chance of being included in the sample. The sub categories of techniques in non-probability sampling include: snowball sampling, quota sampling, convenience sampling and judgemental sampling (Shukla, 2008:65; Kumar, 2011:194; Darian-Smith & McCarty, 2017:103). Snowball sampling can be defined as a sequential method that identifies respondents from the target population to partake in the study and then recruits others to also partake (Rea & Parker, 2014:318; Leavy, 2017:80). Quota sampling selects observations of the sample determined by pre-selected features (Saunders *et al.*, 2016:725), whereas convenience sampling is controlled by the researcher who selects a sample from the population, which is to his convenience (Mooi *et al.*, 2018:46). In contrast with this, judgemental sampling refers to the process where the researcher makes an informed guess of who to include in the sample (Joshi, 2019:97).

For the purpose of this study, a non-probability snowball sampling method was used to gather data from females within the target population. A questionnaire was distributed on social media sites such as WhatsApp, LinkedIn and Facebook, and participants were asked to also send the questionnaire to other females who fit the target population.

After the sampling method was established, the sample size was needed to represent the population in order to avoid variations during the selection for this study (Darian-Smith & McCarty, 2017:102). The sample size will be elucidated on in the next section.

3.3.4 Sample size

Sample size depicts the number of participants in a research study (Acheson, 2010:1299). The sample size depends on the type of study performed and should satisfy the accuracy of the population mean (average) (Bordens & Abbott, 2018: 295; Mukherjee, 2020:53). It is therefore a matter of calculation and judgement (Saunders *et al.*, 2016:279), because a small sample may not meet the study requirements, while a larger sample's findings could be generalised on the population and still be found lacking. Consequently, only samples that adhere to the study criteria should be drawn (Joshi, 2019:90).

Equally, as a standardised scale was used for this study's questionnaire, the CPS (Career Pathways Scale) (Smith *et al.*, 2012), a sample size of 110 was used to ensure that sufficient responses were collected to adequately address the empirical research objectives.

Some similar studies with regard to glass ceiling used the CPS scale and their results were found in support of their research goals: Smith *et al.* (2012:68) invented and tested the CPS with a sample of 307 females, while Balasubramanian and Lethabhavan (2017:1125) used the CPS on

a sample of 467 females, and Bush (2020:69) had a total sample of 438, of which 225 were females.

Surprisingly, small samples may be accurate, due to their strength being found in the correct sample selection rather than in their size, as the size is not related to the population size (Mooi *et al.*, 2018:47). Therefore, if the sample group is similar in characteristics and interests, a small sample would represent the entire population, while a diverse group would need a bigger sample (Fritz & Morgan, 2010:1305). Likewise, the variability of the measured interest dictates the sample size; the less diverse measures are needed, the smaller the sample size that is needed to reach the saturation point (Kumar, 2011:191; Acheson, 2010:1300).

Therefore, from the above, it is evident that the sample size of this study does not dictate the effectiveness of the measures needed to represent the total population. The researcher was satisfied with the sample size as the sample selection was effectively determined. Considering the challenges of this study to gather feedback, and the lack of studies on glass ceiling within the South African context to compare with, the gathered responses are adequate to represent the total population due to the high number of similarities between respondents.

Consequently, drawing inferences about the total population of females in the South African business environment was done confidently (Fritz & Morgan, 2010:1303).

3.4 DATA COLLECTION METHOD

Data is the quantity (numerical) or quality (categorical) of evidence gathered in any research study, theoretical or empirical, to study the phenomenon as set out by the researcher, in order to conclude or report on the credibility of the inferences made (Mukherjee, 2020:53). Data collection refers to the systematic collection and measurement of information from carefully chosen variables (measurable data items). The goal is to obtain reliable evidence that allows the researcher to answer the research question (hypotheses) (Mane & Nikam, 2019:131). Data collection can be grouped as primary or secondary data, where primary data consists of data collected mainly for the research at hand, and secondary data is typically data that has been gathered previously for another purpose (Saunders *et al.*, 2016:316; Darian-Smith & McCarty, 2017:131). The method of collecting primary data provides the researcher with guidance to identify the correct sampling frame. In the process of collecting primary data, the researcher has to balance the data quality against the time, cost and other limiting factors specific to the field of study (Burns & Veeck, 2020:181). Collection methods for primary data include the observation of consumers' behaviour (through test markets or observation studies), and direct questioning of

respondents through interviews, questionnaires, focus groups, or projective techniques (Shukla, 2008:54; Mooi *et al.*, 2018:62).

Because secondary data comprises qualitative (non-numeric) and quantitative (numeric) data, it can be used in quantitative (descriptive) and causal research (explanatory) and is found in either a raw format (little or no processing, not analysed) or a compiled format (undergone limited selection or summary, ready for analysis) (Saunders *et al.*, 2016:318; Darian-Smith & McCarty, 2017:132). The advantages of secondary data are: it saves time and money; the available scope gives direction to the selected study topic and gives the researcher access to quality work (Boslaugh, 2010:1330); while the disadvantages include: the collection and source of the data can be unreliable; modifications may require permission and over a time-lapse some data becomes obsolete (Mane & Nikam, 2019:133).

For the purpose of this study, the researcher used a primary data collection method in the form of a questionnaire (survey). A questionnaire captures a view of an ongoing matter at a certain point in time, from which a generalisation can be made that lasts far longer after the capture has been analysed and dissected (Leedy & Ormrod, 2021:181). A questionnaire collects data from respondents by asking questions about their beliefs, attitudes and behaviours (Mrug, 2010:1472; Leavy, 2017:101; Malhotra *et al.*, 2017:374). This is used to note the attitudes and trends of the particular population of interest, in order to generalise the results on the whole population (Edmonds & Kennedy, 2017:133). Therefore, this study implemented the use of a questionnaire to collect data regarding females' perceptions within the South African business environment.

Questionnaires can be either person-administered (face-to-face), self-administered or computer-assisted (online) (Hair *et al.*, 2002:258; Saunders *et al.*, 2016:440). A person-administered (face-to-face) questionnaire relies on the interviewer to read the questions to the respondent and then records their answers with a computer (Burns & Veeck, 2020:160), whereas a self-administered questionnaire relies on the respondent to complete and record their answers on their own, without any assistance from the researcher (Dawson, 2009:91). A computer-assisted (online) questionnaire relies on the computer to relay the questions and record the respondents' answers (Mooi *et al.*, 2018:68). However, both paper-based questionnaires (person-administered and self-administered) can be adapted to an online version, which is then categorised as a computer-assisted questionnaire, which is known as: a self-administered online questionnaire or a person-administered online questionnaire (Hair *et al.*, 2002:267).

The advantages of questionnaires are that it provides the respondent with anonymity, which may promote more honest feedback (Kumar, 2011:141, Leedy & Ormrod, 2021:182). Questions can

be specific to the topic and make use of different response options and question formats (Mrug, 2010:1476). Administering and recording the answers can be performed with ease by anyone; it does not affect the reliability and validity of the data (Hair *et al.*, 2002:256; Mane & Nikam, 2019:136). Online questionnaires can reach a larger number of people, because it is distributed through the internet and it is compatible with most electronic smart devices and available in any format, thereby making it a more cost-effective method (Mrug, 2010:1476; Leedy & Ormrod, 2021:182). Results are easily quantified, either by the researcher or through software (Mane & Nikam, 2019:136).

The disadvantages of questionnaires are that faulty interpretation of questions or answer options can disable the truthfulness of the received responses; there is no contact to clarify the meaning to the respondent (Mrug, 2010:1476). A low return rate, when people do not respond to online questionnaires received via email or other online channels, also results in increased costs and time delays of the research (Kumar, 2011:141). The possibility exists that data results are misinterpreted and data analysis procedures are wrongfully applied (Hair *et al.*, 2002:256; Mane & Nikam, 2019:136).

For the purpose of this study, a self-administered online questionnaire was compiled to pose direct questions to female respondents regarding their perceptions of glass ceilings in their work environment. The online questionnaire was distributed on social media networks such as WhatsApp, LinkedIn and Facebook. Specific business support groups for females were sought out on Facebook and LinkedIn that offer a platform for females who are working in the South African business environment. On these groups, permission was granted to post an invitation with a link to the online questionnaire that would enable females to document their responses. They were also asked and encouraged to share the invitation with other viable candidates. This invite was reposted regularly to refresh and remind respondents to partake. On WhatsApp, an invitation with a link was sent to possible candidates who fit the sample frame, and they were encouraged to share the invitation with other viable candidates.

This section will provide a detailed overview of the questionnaire, specifically focusing on the design (section 3.4.1), determined by the study to gather data through questions and also looking at the flow and ease of completion that influence the quality of the data captured; the question format (section 3.4.2), in order to communicate clearly with participants; pre-testing of the questionnaire (section 3.4.3), to apprehend possible problems that may cause confusion or frustration for respondents; and the administration of the questionnaire (section 3.4.4), the distribution to reach respondents where they are.

3.4.1 Questionnaire design

A questionnaire aims to describe an existing standard or condition by gathering data at a fixed point in time from the set sample (Vanderstoep & Johnston, 2009:79; Cohen *et al.*, 2018:334). Questionnaires enable the researcher to efficiently collect standardised data from respondents that is easy to administrate, while extracting unforeseen responses through statistical data analysis (Mane & Nikam, 2019:136). However, the type of research study will dictate the format in order to convert the data into questions that the respondents are willing and able to answer (Shukla, 2008:92); therefore, the researcher carefully considered the design and layout of the questionnaire as it affects the data quality (Mukherjee, 2020:77). This was monitored by creating a proper layout and question format that appeal to the respondents, leading them to easily reflect on their opinions or views accurately (Burns & Veeck, 2020:1203; Mane & Nikam, 2019:136).

A well-designed questionnaire can be optimised by paying attention to: (i) the visual presentation, (ii) individual question design, (iii) clearly describing the purpose, and (iv) ease of administering and response capturing (Saunders *et al.*, 2016:439). Distinction between a structured and semi-structured questionnaire is needed. While a structured questionnaire's questions are fixed and standardised for every respondent, the semi-structured questionnaire has a standardised section and an unstructured section where the questions are informal and differs for every respondent (Daniels & Minot, 2020:26).

The questionnaire format communicates a message that should be clear, inviting respondents to partake (Hair *et al.*, 2002:452; Malhotra *et al.*, 2017:374), which is accomplished through: an easy flow with clear and specific instructions (Saunders *et al.*, 2016:468; Leedy & Ormrod, 2021:189), a variety in length and type of questions that are easy to read and follow (Dawson, 2009:97; Kumar, 2011:138), and a logical grouping of topics (Saunders *et al.*, 2016:468). The questionnaire should be divided into sections, and each section should cover a specific topic pertaining to the research study. Questions should be clearly numbered, which also assists with coding the responses afterwards (Malhotra *et al.*, 2017:396).

A good starting point for developing a questionnaire is to begin with a cover letter (introduction) that explains the research topic and general instructions on how the questions should be answered (Hair *et al.*, 2002:458), which is important, as it gives guidance to the respondent and will motivate them to give their full participation (Saunders *et al.*, 2016:468). Here assurance should also be given regarding the respondent's anonymity, if their answers can be traced back to them or not, and how the data will be implemented in the study field (Rea & Parker, 2014:39;

Cohen *et al.*, 2018:494). Each new section should have a short explanation of the aim of its questions and instructions on how to answer them (Dawson, 2009:103).

The types of variables collected through a well-sectioned questionnaire may include: demographic and factual variables (information like, age, gender, occupation or marital status (Vanderstoep & Johnston, 2009:226); opinion and attitude variables (respondents' feelings or beliefs); and event and behaviour variables (what they did and what happened) (Saunders *et al.*, 2016:445). This is obtained through different types of questions, which include open-ended questions, where respondents may answer in their own words; and closed-ended questions, where respondents may choose an answer from the response options provided (Mukherjee, 2020:76). Take care not to ask double-barrelled questions, attempting to cover two topics in one question (Rea & Parker, 2014:63); and avoid leading questions, steering the respondent towards an answer or presumption (Iarossi, 2006:32; Kumar, 2011:147).

Therefore, the wording of questions is very important and should be chosen very diligently (Dawson, 2009:91). Some guidelines to keep in mind with questions' wording include: it should specify who it addresses (Daniels & Minot, 2020:31); length affects the comprehension and meaning – it should be clear and avoid unfamiliar jargon, abbreviations or uncommon acronyms (Iarossi, 2006:37; Dawson, 2009:91; Saunders *et al.*, 2016:452). Therefore, the wording used in questions should clearly convey the meaning and subject matter to respondents, to improve the questionnaire's validity (Saunders *et al.*, 2016:452; Kumar, 2011:143). Even though correct grammar and language use are important, it is not all that is needed to produce an optimal questionnaire (Malhotra *et al.*, 2017:375); it does, however, set the tone for quality and appeals to the respondent to encourage their individual thinking and honest responses (Kumar, 2011:146).

The online questionnaire for this research study adhered to the recommended guidelines of designing a well-structured questionnaire, in order to determine females' perception of the glass ceiling within the South African business environment. The layout consisted of three sections, namely an informed consent section (which relates to the cover letter of a printed questionnaire); Section A, which gathered the respondents' demographic information; and Section B, which measured the perception of the glass ceiling by females. The informed consent section explained the purpose of the research study, as well as providing the respondent with the necessary assurance that their responses will be anonymous and that confidentiality will be ensured. Furthermore, this section indicated the approximate time it will take to complete the online questionnaire, and the contact details of the researcher were also included. Thereafter, a section asked the participant to declare their participation, if they did not accept they could not proceed to the rest of the questions, if they accepted they continued to Section A. Each question in the

questionnaire was stated in a clear and understandable manner, and instructions were set out at the beginning of every new section.

The questionnaire used in this research study is available in Annexure B.

An overview of the question format used (section A and section B) will be provided in the following section.

3.4.2 Question format

The question format should be understandable, specific, unambiguous and answerable by the respondent. It communicates a message about the research, and, if conveyed correctly, should yield usable data that is relevant (Cohen *et al.*, 2018:475).

This is achieved through the different types of questions, which include: open-ended and close-ended questions. Open-ended questions (unstructured questions) require respondents to relay their answers in their own words, be it in a narrative or summary format (Kumar, 2011:143; Daniels & Minot, 2020:28), and are mostly beneficial in exploratory research when used as an opening or closing question (Malhotra *et al.*, 2017:386). The advantages of open-ended questions provide a wide variety of information because respondents can freely express their opinions (Kumar, 2011:145); whereas the disadvantages are that analysis is difficult because the data classification is trying (Mrug, 2010:1472); free choice may cause some respondents problems to answer openly, and information may be lost (Kumar, 2011:145); and coding can be time consuming due to the volume of responses and illegible writing (Hair *et al.*, 2002:501).

Closed-ended questions (structured or forced-choice questions) list a number of responses from which respondents have to select their most suited answer (Mrug, 2010:1473; Saunders *et al.*, 2016:452). This question type is recommended to be used where possible and can be divided into three types: multiple choice, participants must select one or more of the provided options (Shukla, 2008:88,89); scale, three or more given rateable categories, like from low to high (ordinal data) (Mrug, 2010:1473); and dichotomous, only two response options are provided, like yes/no or true/false (Bordens & Abbott, 2018:139). Advantages of close-ended questions are that the reply options help to obtain the needed information and make the response options easy to analyse (Hair *et al.*, 2002:451; Dawson, 2009:31); answer options are uniform and allow comparison between respondents (Rea & Parker, 2014:50). Disadvantages of close-ended questions are that the gathered information lacks variability and depth (Mrug, 2010:1473); respondents' thinking could be conditioned through the available response pattern (Kumar,

2011:145); and order bias (position bias) can occur within multiple-choice questions, where an option is chosen based on its listed position or given order (Iarossi, 2006:46).

Measurement is where numbers are assigned to the characteristics of objects in accordance with pre-set rules, and therefore the measurement is of the characteristics and not the object (Malhotra *et al.*, 2017:123; Leedy & Ormrod, 2021:183); whereas scaling is the generating of a continuum (values in a continuous sequence) where measured objects are located (Iarossi, 2006:59). Scaling techniques are either comparative or non-comparative. Comparative scaling compares objects directly and non-numerically, like choosing between two options (Mane & Nikam, 2019:137). This is categorised into: paired comparison; rank order; constant sum; Q-sort and other procedures (Shukla, 2008:71; Malhotra *et al.*, 2017:343).

Non-comparative scaling scales each object independently from the remaining, like giving preference on a scale from one (1) to five (5) (Mane & Nikam, 2019:137). This is categorised into: continuous rating scales and itemised rating scales (Likert, semantic differential and Stapel) (Shukla, 2008:72). The most used is the Likert scale, which rates the respondents' behaviour or attitudes on a range that can vary from "strongly agree" to "strongly disagree" with regard to the given statements or questions (Burns & Veeck, 2020:196; Leedy & Ormrod, 2021:183).

The online questionnaire for this study adhered to all the guidelines as discussed in the above sections in developing the format of the questionnaire and questions. The question format was compiled as follows:

Section A (A1-A7) asked demographic questions to ascertain the respondents' demographic features regarding their age, education, marital status, current employment position, number of years' service in the current position, and total number of years' service. These questions were adapted from studies done by Tran (2014) and Minné (2015); wording was changed to suit the current study and theme.

The questions in this section were multiple-choice questions (close-ended questions, to select one or more of the provided options), giving respondents the option to choose the accurate grouping or option for the necessary feature.

Section B (B1-B36) measured the perception of the glass ceiling of females through the CPS scale adapted from Smith *et al.* (2012). For this study, the wording was changed, without losing its original intent, as some phrases were sensitive and were replaced with non-sexist terms to be applicable to a South African sample.

The question format in this section was dichotomous questions (closed-ended questions, which offer two possible answers, in the format of yes-no, true-false or agree-disagree). The scale was also changed to a four-point Likert scale to measure the perception of respondents, ranging from (1) strongly disagree, (2) disagree, (3) agree, and (4) strongly agree. Omitting the middle 'neutral' choice forces the respondent to make a choice of either positive or negative. Mooi *et al.* (2018:76) convey that the neutral choice minimises partial responses and they do not support this option as it could lead to faulty validity. Willits *et al.* (2016:134) comment that the 'undecided' middle option is valid if the respondents do not have an opinion or knowledge of the subject matter. Therefore, for this study, we needed respondents' opinions and honest feelings about the glass ceiling and therefore left out the middle or undecided option to force them to give a true reflection of their perception on the matter, either positive or negative. As confirmed by Diamantopoulos *et al.* (2012:447), the number of items used is not a fixed rule, but at minimum of four (4) are necessary to obtain internal validity.

The table below shows where the CPS scale has been used in other studies:

Table 3-1: CPS scales in other studies

CPS scale:	Authors:
Denial	Smith, Crittenden and Caputi. 2012; Mohammadkhani and Gholamzadeh, 2016; Balasubramanian and Lathabhavan, 2017; Sing and Malhotra, 2017; Bayati and Alavi, 2018; Askarian, Tavakoli, Salajegheh, Pourkiani and Arabpour 2020; Bush 2020
Resignation	Smith, Crittenden and Caputi. 2012; Mohammadkhani and Gholamzadeh, 2016; Balasubramanian and Lathabhavan, 2017; Sing and Malhotra, 2017; Bayati and Alavi, 2018; Askarian, Tavakoli, Salajegheh, Pourkiani and Arabpour 2020; Bush 2020

Table 3-1: CPS scales in other studies (continued ...)

CPS scale:	Authors:
Resilience	Smith, Crittenden and Caputi. 2012; Mohammadkhani and Gholamzadeh, 2016; Balasubramanian and Lathabhavan, 2017; Sing and Malhotra, 2017; Bayati and Alavi, 2018; Askarian, Tavakoli, Salajegheh, Pourkiani and Arabpour 2020; Bush 2020
Acceptance	Smith, Crittenden and Caputi. 2012; Mohammadkhani and Gholamzadeh, 2016; Balasubramanian and Lathabhavan, 2017; Sing and Malhotra, 2017; Bayati and Alavi, 2018; Askarian, Tavakoli, Salajegheh, Pourkiani and Arabpour 2020; Bush 2020

The next section provides insight into the pre-testing of the questionnaire before collecting data for the research study (Mane & Nikam, 2019:137).

3.4.3 Pre-testing of the questionnaire

Pilot testing (piloting) is a pre-test on the completed questionnaire, to establish whether it obtains the required research results (Dawson, 2009:98). The aim of a pre-test is to identify and rectify any problems, difficulties or mistakes that the actual study population might encounter when providing their views and perceptions of the glass ceiling (Persaud, 2010a:1033; Burns & Veeck, 2020:218). Problems could be whether the wording is appropriate and understood in the way it was intended, and whether the meaning is conveyed and understood the same by the different respondents (Kumar, 2011:150; Rea & Parker, 2014:38). The pre-test assists the researcher to assess the validity and reliability of the questions; the test data can be used as a preliminary analysis verifying whether the collected data will answer the research questions (Saunders *et al.*, 2016:473). Therefore, it is imperative to conduct a pre-test of the questionnaire on respondents who resemble the population of the study (Leavy, 2017:116).

The test group is informed that they have participated in a pilot test and what its objectives are; they are then asked to give a debriefing of the questionnaire, which entails what their interpretations of questions were and to highlight any problems they encountered (Iarossi,

2006:87). Identified problems are examined and where necessary the wording is changed to remove ambiguity, and then the research methodology is adjusted where needed (Persaud, 2010a:1033; Kumar, 2011:150). After revisions have been made, another pre-test must be run on a different sample group to verify any problems. This process of pre-testing should be repeated until no changes are needed (Dawson, 2009:100; Malhotra *et al.*, 2017:399).

Pre-testing a questionnaire is necessary and valuable where a research topic has not been explored a lot or is not familiar (Persaud, 2010a:1032).

Consequently, there was no need for a pre-test of this study's questionnaire as the CPS scale of Smit *et al.* (2012) was used, which has already been validated, and therefore the compiled questionnaire for this study was ready to be administered.

3.4.4 Administration of the questionnaire

Administration of the questionnaire entails the procedures of how the instrument is distributed or reaches the respondents to gather their data (Rea & Parker, 2014:8). This is implemented through different methods such as by mail, email, via telephone, individually or a mixed method that combines different styles into one. Each method has its advantages and disadvantages with their own demands (Mrug, 2010:1474; Bordens & Abbott, 2018: 276).

The initial administration of the questionnaire for this study was through the South African Council for Business Women (SACBW) who have a database of females working within the middle to top management levels of South Africa. From November 2020 to January 2021, the SACBW distributed the questionnaire on their database via email. After this initial period of distribution, only 12 complete responses were returned. Hereafter, the sample method was adapted in order to ensure an increased response rate. This resulted in distribution of the online questionnaire on three social networking platforms: WhatsApp, LinkedIn and Facebook. The administration of the online questionnaire on social networking platforms took place from February 2021 to April 2021, which accumulated a further 98 responses. This resulted in a total of 110 responses to be included for statistical analyses.

This section described the method in which data was collected for the research study. The next section will focus on preliminary data analysis.

3.5 PRELIMINARY DATA ANALYSIS

Data analysis is the process where raw data is converted into usable result formats such as a table, graph, statistical test, or a regression analysis (Saunders *et al.*, 2016:496; Daniels & Minot,

2020:355). In order to interpret the data, it must first be prepared for analysis, which involves organising, summarising and describing the data (Bordens & Abbott, 2018:430; Cohen *et al.*, 2018:643). This preparation consists of: validation of data, data coding and editing, data entry, detecting errors and tabulating the data (Hair *et al.*, 2002:492).

Data validation (data cleaning) is determining the plausibility that the collected data was gathered without fraud, and has no entry errors or missing data (Malhotra *et al.*, 2017:541; Mooi *et al.*, 2018:399). Data editing checks the raw data for mistakes to ensure its integrity (Daniels & Minot, 2020:59). Data coding groups and assigns a category label to data, segmenting data into smaller groups based on the relevant criteria (Cohen *et al.*, 2018:668; Creswell & Creswell, 2018:314). Data entry is the entry of the coded data into the statistical software program that will perform the required analysis into useful results (Saunders *et al.*, 2016:509; Mooi *et al.*, 2018:12). Error detection is done through routines that scan the raw data and create a tabled list to ensure no errors are present (Bordens & Abbott, 2018:403). Tabulation of data assigns the number of responses into categories, while one-way tabulation categorises a single variable of the study, and cross-tabulation categorises two or more variables of the study (Hair *et al.*, 2002:511; Malhotra *et al.*, 2017:570).

Data analysis uses statistical tests and methods to display the data in such a way to realise the research objective, which for this study is to determine females' perception of the glass ceiling in the South African business environment (Burns & Veeck, 2020:45). Different data analysis techniques are used to create data structures that combine variables into ratios or constructs. This allows the researcher to test for significant differences between variables, evaluate the quality of the data, and test cause-effect relationships (Hair *et al.*, 2002:46).

In the following section, the statistical analysis and the techniques applied in the data analysis will be discussed.

3.6 STATISTICAL ANALYSIS

Statistical analysis enables the researcher to define the quantitative data and make inferences thereof (Leedy & Ormrod, 2021:34). The five basic types of statistical analysis that can be used include: descriptive, inference, difference, association and relationship. They can be combined and used to convert the raw data into useful information (Leavy, 2017:111). Descriptive analysis summarises the important parts of the gathered data, whereas inference analysis makes conclusions about the population (Jaggia & Kelly, 2020:5). Difference analysis compares responses of groups with each other. Association analysis states the relationship strength between variables, and relationship analysis shows multiple relationships between variables

(Burns & Veeck, 2020:317). Statistical significance is an approach to interpret the statistical results, and measures the probability of a specific value of a statistic to be significant (Rosenstein, 2019:67).

Knowing the kind of analysis is important as each requires different statistics; the kinds are grouped according to the number of variables. They are known as: univariate analysis observes differences where one variable is present; bivariate analysis observes the relationship possibility between two variables (Cohen *et al.*, 2018:730); and multivariate analysis observes the relationship possibility between two or more variables (Rea & Parker, 2014:203).

However, it is also necessary to classify a variable, and therefore a variable is the number or characteristic that varies from case to case. The two categories of variables are: categorical and continuous (Daniels & Minot, 2020:75); their scale of measurement guides how the data can be analysed in relation to each other (Leedy & Ormrod, 2021:345). Therefore, categorical variables are values that are not measured numerically, but are arranged into categories; they are measured by nominal scale (two or more categories of measure without a usual order) and ordinal scale (measures can be in order or ranked) (Vanderstoep & Johnston, 2009:106; Daniels & Minot, 2020:75). Continuous variables can have a large number (or infinite) of values; they are measured by interval scale (the numerical measure and the interval size are the same) and ratio scale (the same as interval, but with a true zero point) (Rosenstein, 2019:222; Daniels & Minot, 2020:76-77).

For the purpose of this research study, IBM SPSS, version 27 was used to capture and analyse the data through the following statistical methods:

- Inferential statistics (factor analysis) (section 3.6.1),
- Reliability of the scales (Cronbach's alpha) (section 3.6.2),
- Validity of the scales (internal and external measures) (section 3.6.3),
- Descriptive statistical analysis (frequencies, percentages, means and standard deviation (section 3.6.4),
- Correlation analysis (Spearman's rank order, t-test, effect sizes) (section 3.6.5).

Each of these methods will be discussed in the following sections.

3.6.1 Inferential statistics

Inferential statistics make inferences (predictions or generalisations) about a population based on the sample data collected (Cohen *et al.*, 2018:727; McClave & Sincich, 2018:34), and therefore a small known sample(s) is used to make inferences (group of methods) on the larger unknown population (Jaggia & Kelly, 2020:5; Leedy & Ormrod, 2021:344). This is done through hypothesis testing, difference testing, and factor analysis (Cohen *et al.*, 2018:727). Hypothesis testing estimates the plausibility of a hypothesis through the sample data. Difference testing or the t-test is used when the standard deviation is unknown (Harpale & Bairagi, 2019:177), it draws from a random sample to compare the means of two randomly assigned groups (Cohen *et al.*, 2018:777). Factor analyses are procedures to reduce and summarise data, and explain the correlation between variables (Mooi *et al.*, 2018:396). Due to its extent and influence on this study, factor analysis will be discussed in detail in the following section.

3.6.1.1 Factor analysis

A factor is the dimension of a number of variables; they are extracted based on their correlation to make up the factor analysis process (Bordens & Abbott, 2018:478). Factor analysis is a procedure that groups variables together that are similar, to summarise factors that are representative of the original variables, and detects commonality (correlation) between variables (Cohen *et al.*, 2018:818; Leedy & Ormrod, 2021:368). The purpose is to determine combinations of variables to identify the relationships between them (Hair *et al.*, 2002:602; Fabrigar & Wegener, 2012:6). A correlation matrix indicates which items have similar response patterns and are bundled into factors (Cleff, 2014:183). It is therefore necessary to consider previous research and theory, and to rely on the researcher's judgement when specifying the included variables in the analysis (Fabrigar & Wegener, 2012:83; Malhotra *et al.*, 2017:730).

There are two forms of factor analysis, namely exploratory and confirmatory. Exploratory factor analysis (EFA) determines the factors that cluster together, which helps to generate the research hypothesis; confirmatory factor analysis (CFA) has a definite expectation of the structure of how relatable variables are (Bordens & Abbott, 2018:480; Mooi *et al.*, 2018:266-266).

The statistics tests most associated with factor analysis are the Bartlett's test and the Kaiser-Mayer-Olkin (KMO), which were both implemented in this study. The Bartlett's test of sphericity examines the correlation between variables (the hypothesis); it should result in a statistical significance (<0.05) (Malhotra *et al.*, 2017:711; Cohen *et al.*, 2018:820) and it can only be used on a normal distribution (Cleff, 2014:184). The KMO, on the other hand, measures the sampling adequacy, measuring whether the factor analysis is appropriate (values between 0.5 and 1.0,

below 0.5 imply it is not appropriate), and points to whether the other variables in the set can clarify the correlation between variables (Malhotra *et al.*, 2017:709-712; Cohen *et al.*, 2018:820; Mooi *et al.*, 2018:272).

Once the aptness of factor analysis is determined, the appropriate method of factor extraction should be chosen, which is either principal component analysis or common factor analysis (Fabrigar & Wegener, 2012:30; Cleff, 2014:185). Principal component analysis is an exploratory analysis tool (Mukherjee, 2020:201) to recognise patterns of similarity and difference; it extracts relevant information from intricate datasets (Harpale & Bairagi, 2019:184), and considers the total variance in data (Cohen *et al.*, 2018:819). The objective is to reproduce the data structure using only a few factors (Mooi *et al.*, 2018:266). While common factor analysis (principal axis factoring) bases the factors on the common variance, by inserting the communalities in the correlation matrix's diagonal, it is used when the aim is to identify the common variance and the primary dimensions. This method is complex and is recommended for expert users (Malhotra *et al.*, 2017:709-717).

The extracted number of factors can be determined *a priori* or through eigenvalues and scree plots. Eigenvalues measure the variance between factors, the sum of the factors squared loadings (Mooi *et al.*, 2018:277, 278). Values greater than one are used, as the values smaller than one indicate less variation of a variable (Cohen *et al.*, 2018:820). A graph plotting the eigenvalues in descending order is a scree plot, charting each factor in a descending order of variance (Fabrigar & Wegener, 2012:66). Communalities are dependent on the factor extraction method (Cleff, 2014:185) and show how much variance of each variable the extraction can replicate, which is preferably at 50 percent (Mooi *et al.*, 2018:277).

An output from the factor analysis is the factor matrix, containing the coefficients that expressed the variables in terms of the factors, also known as the factor loadings (Malhotra *et al.*, 2017:719). Therefore, the factor loading is the correlation (relationship) between variable and factor; each loading indicates the importance of the measured variable (Hair *et al.*, 2002:602; Borden & Abbott, 2018:478), with a value from -1 to +1 where a high factor loading means that a variable is well represented by a factor (Mooi *et al.*, 2018:276). The factors are interpreted by the factor loading, but can be simplified through rotation, which maximises high correlation and minimises low correlation. Therefore, the rotated factors will be distinctly clustered by factor loading (Borden & Abbott, 2018:479). Orthogonal rotation is when the axes are kept at right angles and produce uncorrelated factors. It can be divided into two methods, namely varimax procedure, increasing the interpretability of factors by reducing the number of high loaded variables (Malhotra *et al.*,

2017:719; Mooi *et al.*, 2018:276, 281); and oblique rotation, used on factors that have a high correlation (Malhotra *et al.*, 2017:720; Bordens & Abbott, 2018:479; Mooi *et al.*, 2018:281).

From the above, the importance of EFA analysis is clear, and therefore it has been applied to this study. An EFA was followed conducting Bartlett's test of sphericity, to test the correlation of variables, and the KMO to determine the sampling adequacy, while the principal component analysis was followed to determine variance through the eigenvalues. Through the EFA, the researcher could identify the key factors that were used to conduct the correlation analysis and the t-test to determine the relationships among these factors.

The t-test examines the difference of two means between factors and is used to accept or reject the null hypothesis (H_0 , prediction that no differences exist) (Edmonds & Kennedy, 2017:22; Harpale & Bairagi, 2019:174). A t-test can therefore be either independent, which compares means of two independent factors, or dependent (paired), which compare means for a single factor or for two related factors (Leedy & Ormrod, 2021:447).

While we are interested in the significance of the difference between the means, it is also helpful to know the magnitude or strength of the difference, known as the effect size (Rosenstein, 2019:224; Daniels & Minot, 2020:152). This reflects to what degree the independent variable manipulates the dependent variables value (Bordens & Abbott, 2018:441). Several measures are used to estimate this difference, and this study used Cohen's d to reflect the effect size (Daniels & Minot, 2020:152).

There are two criteria when evaluating research, namely validity and reliability. Validity shows to what extent a measure is actually measuring according to the design's purpose, and reliability looks at the consistency of the achieved results (Leavy, 2017:113). These two concepts will be discussed in the next sections.

3.6.2 Reliability analysis

The aim of reliability is to quantify the accuracy of the measuring instruments and to verify the reliability of the scores they produced (Gushta & Rupp, 2010:1237). A measure can be labelled as reliable when the repeated measuring methods deliver consistent values and agree with the standard. When under similar conditions and with a similar population, it arrives at similar results, which is known as reliable (Vanderstoep & Johnston, 2009:63; Kumar, 2011:173). The three types of reliability determination in quantitative research are internal consistency, test/retest, and alternative forms (Shukla, 2008:85). Internal consistency measures the consistency (reliability) of responses, and responses are correlated to the questionnaire's questions (Saunders *et al.*,

2016:451); it relies on a test to be done once, in contrast with the other two methods that require it to be done twice (Cohen *et al.*, 2018:269). The most frequent method applied is the Cronbach's alpha (Vanderstoep & Johnston, 2009:63). Cronbach's alpha quantifies reliability; it is a coefficient for inter-item correlation, which gives a measure of internal consistency and is useful for multi-item scales (Multon & Coleman, 2010:159; Cohen *et al.*, 2018:270). Test/retest (stability) consistency correlates data collected with data collected under near similar conditions (Gushta & Rupp, 2010:1237; Rosenstein, 2019:32). A reliable questionnaire (instrument) will yield similar data when gathered from similar respondents; therefore, it is consistent over time (Cohen *et al.*, 2018:268). Alternative (equivalent) forms examine the reliability of your questionnaire by comparing the responses to alternative forms of the questions or question group and producing similar results (Saunders *et al.*, 2016:451; Leedy & Ormrod, 2021:131).

The reliability of this study looked at internal consistency through the Cronbach's alpha; it was calculated for each of the CPS constructs (*denial, resilience, resignation, acceptance*) to quantify their reliability. As seen from the above, reliability revolves around replication and consistency, while validity examines whether the appropriate measures are used, the accuracy of results and the findings' generalisability (Saunders *et al.*, 2016:202), which will be discussed in the next section.

3.6.3 Validity analysis

Validity denotes whether meaningful inferences can be drawn from the scores of a particular instrument; whether it measures what was intended (Vanderstoep & Johnston, 2009:59; Kumar, 2011:173; Creswell & Creswell, 2018:395). The validity of a study depends on whether a conclusion can be drawn from the results. There are two characteristics to measure validity, namely internal and external validity (Saunders *et al.*, 2016:202). Internal validity relays the extent to which the research design sufficiently tests the hypothesis (Bordens & Abbott, 2018:115).

In reference to questionnaires, if they measure what was intended, then researchers look at three sub-categories: content, construct and criterion (Saunders *et al.*, 2016:450; Rosenstein, 2019:33). Content validity (face) examines whether the questionnaire adequately covers the items under investigation, thereby fairly judging what 'adequately' means in relation to the content and ensuring that the main elements are represented (Saunders *et al.*, 2016:450; Bordens & Abbott, 2018:133; Cohen *et al.*, 2018:257). Construct validity examines the extent to which the questions (scale items) measure the intended construct (Vanderstoep & Johnston, 2009:60; Rosenstein, 2019:33), through the design and data collection methods (Mukherjee, 2020:222). Criterion validity (predictive) examines the question's ability to make predictions (Saunders *et al.*,

2016:450), which opens two forms within the criterion category, namely: predictive validity (the first rounds collected data correlate with data collected in the future); and concurrent validity (collected data from one questionnaire must correlate with data from another questionnaire) (Bordens & Abbott, 2018:134; Cohen *et al.*, 2018:257-258).

The second characteristic to measure validity is external validity, which is the degree to which the findings can be extended and generalised to outside the study (Saunders *et al.*, 2016:204; Edmonds & Kennedy, 2017:8; Rosenstein, 2019:45).

For the purpose of this study, the internal validity procedures were followed to verify a link between the factors and whether the questionnaire measured what was planned. This was fairly judged through content validity that covered the elements of the study; through construct validity that the scale items measure the CPS constructs (denial, resilience, resignation, acceptance); to criterion validity to correlate the data with previous studies that used the CPS scale.

3.6.4 Descriptive analysis

Descriptive statistics are a numerical summary of data through a description and comparison of the variables (Jaggia & Kelly, 2020:5; Leedy & Ormrod, 2021:349). This helps to answer the research question, to identify outliers (an observation that lies abnormally far from other values) and to identify where assumptions were violated (Daniels & Minot, 2020:75); it reports only on the findings but in different ways (Cohen *et al.*, 2018:727). However, the type of descriptive analysis to apply depends on the variable type (Daniels & Minot, 2020:75), and therefore different analysis measures are used to describe a variable, through: (i) central tendency, (ii) measure of variability, and (iii) measure of association, the association between two or more variables, measured through the correlation coefficient (Saunders *et al.*, 2016:529-531; Bordens & Abbott, 2018:430; Leedy & Ormrod, 2021:349-361).

The central tendency is a measure to examine why data clusters around a central point (middle number) (Vanderstoep & Johnston, 2009:92; Jaggia & Kelly, 2020:62). It is a univariate (one variable) analysis and is measured by using either the mode, median or mean (Cohen *et al.*, 2018:762; Rosenstein, 2019:79). Each measure of centre has its own characteristics, and the choice of measure depends on the scale and the distribution of the scores (Bordens & Abbott, 2018:431). The mode indicates the most frequently occurring score in the dataset distribution (Jaggia & Kelly, 2020:65). Nominal data is described the best through the mode (Rea & Parker, 2014:99). The median indicates the middle (midpoint) of the ordered distribution (Vanderstoep & Johnston, 2009:92; Saunders *et al.*, 2016:528-529); the data has to be ranked (from low to high), and therefore this does not work on nominal data (Cohen *et al.*, 2018:762; Rosenstein, 2019:79),

but does describe ordinal data the best (Rea & Parker, 2014:100). The mean indicates the average, i.e., the sum of all the scores divided by the total number of the set (Saunders *et al.*, 2016:528-529; Jaggia & Kelly, 2020:61). It should only be used with continuous variables (ratio and interval) that are distributed normally (Rea & Parker, 2014:105; Bordens & Abbott, 2018:431).

The measure of variability indicates the dispersion (spread, variability) of the scores around the central tendency (Vanderstoep & Johnston, 2009:92; Saunders *et al.*, 2016:529). The used measures of dispersion are: range, inter-quartile range, variance and standard deviation (Bordens & Abbott, 2018:431). Range looks at the highest and lowest scores, and determines the difference between them, but this is a limited approach due to the selection (McClave & Sincich, 2018:93; Rosenstein, 2019:91); while the interquartile range includes more scores, namely the middle 50 percent, and the difference between the ordered values of the third and first quartile (Rea & Parker, 2014:110; Jaggia & Kelly, 2020:77). Variance uses all the values, and indicates the spread (distance) of a variable's values from the mean (Rosenstein, 2019:91; Daniels & Minot, 2020:87). Standard deviation is the most used measure, and indicates the average distance the scores differ from the mean (Vanderstoep & Johnston, 2009:93; Jaggia & Kelly, 2020:77); a great standard deviation is where the data is more dispersed (Rea & Parker, 2014:111).

The next section will explore the measure of association through correlation analysis in depth (Sheskin, 2010:264).

3.6.5 Correlation analysis

Correlation analysis indicates the association between two or more variables (Sheskin, 2010:264; Edmonds & Kennedy, 2017:125), i.e., the amount of variation present relative to the mean (Daniels & Minot, 2020:88). This method helps to identify causal relationships and whether variables are relatable outside the study. This relationship is indicated by the correlation coefficient, an index number that falls between -1.0 and +1.0, which indicates the strength of the relationship (covariation) between two variables by size and direction (the sign +/-) (Rosenstein, 2019:120; Burns & Veeck, 2020:389; Leedy & Ormrod, 2021:358), where a +1 indicates a positive correlation, the variables are related and where the values of one should increase, so also will the other one's value increase (Saunders *et al.*, 2016:545; Jaggia & Kelly, 2020:92).

Therefore, collinearity is a strong correlation between two independent variables, resulting in a correlation coefficient of one (1), making interpretation difficult as the coefficients are not unique and influenced by other variables (McClave & Sincich, 2018:775; Mooi *et al.*, 2018:221). When collinearity occurs, the researcher may decide to omit one or more of the items, provided it does not influence the research study (Cohen *et al.*, 2018:497; Jaggia & Kelly, 2020:438).

Correlation for this study was measured through Spearman's rank-order correlation, which measures the strength and direction of correlation between two variables, if at least one was measured through ordinal data like a Likert scale (Rosenstein, 2019:120).

3.7 CONCLUSION

Chapter 3 provided a detailed theoretical background of the empirical portion of this study regarding the research methodology (research design and research approach). Furthermore, the sampling strategy section described the target population, sampling frame, sampling method, and sample size of this study.

For this study, a quantitative (descriptive) research design was used and outlined in Chapter 3. The target population consisted of females working in the South African business environment with access to growth opportunities in their organisation. Data was gathered through a non-probability snowball sampling method by using an online questionnaire distributed on social media sites. A self-administered online questionnaire was used to collect the data required for this study. Females who completed the online questionnaire were also encouraged to share the link to the questionnaire on their own personal and professional social networking site accounts.

This online questionnaire included questions concerning respondents' demographic information and respondents' perception of the glass ceiling with specific reference to denial, resilience, resignation and acceptance. Additionally, the questionnaire also included an informed consent section, where the purpose of the research study and the necessary information ensuring the respondent's anonymity were explained.

For this research study, exploratory factor analysis, reliability analysis, validity analysis, descriptive statistical analysis, and correlation analysis were employed as statistical analysis approaches.

The empirical and statistical analysis findings will be reported on and set out in the following chapter, Chapter 4.

CHAPTER 4

RESULTS OF THE EMPIRICAL ANALYSIS OF FEMALES' PERCEPTIONS OF THE GLASS CEILING

This chapter will discuss and address the results of the following empirical objectives of this study:

- Determine a demographic profile of females working in the business environment of South Africa.
- Determine the perceptions of females towards the glass ceiling in their current work or management level in the business environment of South Africa, with specific reference to denial, resignation, resilience and acceptance as factors that influence females' perceptions.
- Determine the relationship between the factors that influence females' perception of the glass ceiling within the South African business environment.

4.1 INTRODUCTION

This chapter reports on the results gathered through the questionnaire to identify females' perception of the *glass ceiling* in the South African business environment.

Section A of the questionnaire included the demographic information (section 4.2), which addresses the first empirical objective of this study, i.e., *to identify the demographic profile of females in the business environment of South Africa*. Results of the first empirical objective are reported by means of descriptive statistics (frequencies and percentages).

Section B of the questionnaire addresses the second empirical objective, i.e., *females' perception towards the glass ceiling in their management level* with reference to the identified CPS factors: *denial, resignation, resilience and acceptance*. Each sub-section contains the data per factor: denial (section 4.3.1), resignation (section 4.3.2), resilience (section 4.3.3) and acceptance (section 4.3.4). The descriptive statistics describe the data and validate whether the assumptions of the dataset have been violated (Shukla, 2008:99). It displays the applied statistics visibly (tabled) in a summary of the values and variability of the collected data according to frequencies and percentages (Jaggia & Kelly, 2020:5).

The factor analysis extracted the maximum common variance of the variables pertaining to females' perceptions of the *glass ceiling*, whereas the factor loading shows the variance explained by the variable on the specific factor (Hair *et al.*, 2002:602). The factor strength is determined by the eigenvalue: a value greater than 1 is reported, which accounts for the variance of the factor

(Bordens & Abbott, 2018:478). This section also reports the KMO (Kaiser-Mayer-Olkin) to indicate sampling appropriateness; and the Bartlett's test of sphericity, which tests whether the correlation matrix is an identity matrix (Cohen *et al.*, 2018:820). The last aspect of the factor analysis to be reported on is the Cronbach's alpha value, which is a reliability test of the internal consistency of the scales (Leavy, 2017:114).

This chapter concludes with section 4.4, to address the third empirical objective, reporting on *the relationships between the factors that influence females' perception of the glass ceiling*. Firstly, the hypothesis is tested to validate the likelihood of relationships as stated in the objective (Harpale & Bairagi, 2019:177; Leedy & Ormrod, 2021:344). Then, the correlation tables of the factors are displayed and elucidated on to indicate the association between variables (Sheskin, 2010:264), as well as the p-values and effect sizes to display the relationships between the variables (Bordens & Abbott, 2018:258).

The chapter concludes with a summary of the main results on females' perceptions of the glass ceiling.

4.2 DEMOGRAPHIC PROFILE OF FEMALES WORKING IN THE BUSINESS ENVIRONMENT OF SOUTH AFRICA

This section addresses the first empirical question of the study – to determine the demographic profile of South African working females in the business environment. The sample frame of this study (Chapter 3) was females working within the South African business environment who belong to any business-related social media groups, networks and business associations. A total of 110 questionnaires were completed and used for statistical analysis. This section will reflect on the demographic information of these respondents, gathered by Section A of the questionnaire.

Table 4-1 indicates the descriptive statistics of Section A (items A2-A8) of the sample group.

Table 4-1: Frequencies and percentages of the demographic information

Items			Frequencies	Percentages
A2	Age at last birthday	18-24 years	3	2.7
		25-29 years	14	12.7
		30-39 years	54	49.1
		40-49 years	22	20.0
		50-59 years	16	14.5
		60 years and above	1	0.9
A3	Your current marital status	Single, with no children	22	20
		Single with 1 or more children living at home	8	7.3
		Married, with no children	20	18.2
		Married, with 1 or more children living at home	48	43.6
		Domestic partnership, with no children	10	9.1
		Domestic partnership, with 1 or more children living at home	2	1.8
A4	Highest qualification obtained	Doctoral degree	13	11.8
		Master's degree	19	17.3
		Honours degree	24	21.8
		Bachelor's degree	22	20
		Diploma	16	14.5
		High school	16	14.5
A5	Current work position	Office support	27	24.5
		Supervisory staff	13	11.8
		Middle-managerial level	37	33.6
		Top-managerial level	11	10
		Entrepreneur/business owner	22	20
A6	Number of years you have been working at your current employer	Less than 1 year	5	4.5
		1-3 years	27	24.5
		4-10 years	41	37.3
		11-15 years	24	21.8
		16-20 years	4	3.6
		More than 20 years	9	8.2

Table 4-1: Frequencies and percentages of the demographic information (continued...)

Items			Frequencies	Percentages
A7	Number of years you have been working in your current position	Less than 1 year	8	7.3
		1-3 years	40	36.4
		4-10 years	41	37.3
		11-15 years	7	6.4
		16-20 years	7	6.4
		More than 20 years	7	6.4
A8	Number of years' work experience	Less than 1 year	2	1.8
		1-3 years	3	2.7
		4-10 years	25	22.7
		11-15 years	32	29.1
		16-20 years	15	13.6
		More than 20 years	33	30

4.2.1 Age at last birthday

The data reflects that the combined age range of female respondents fell predominantly between 30 to 59 years old. Therefore, the majority (49.1%) were between 30 and 39 years old. The second and third group fell between 40 to 49 years old (20%) and 50 to 59 years old (14.5%), respectively (Figure 4-1).

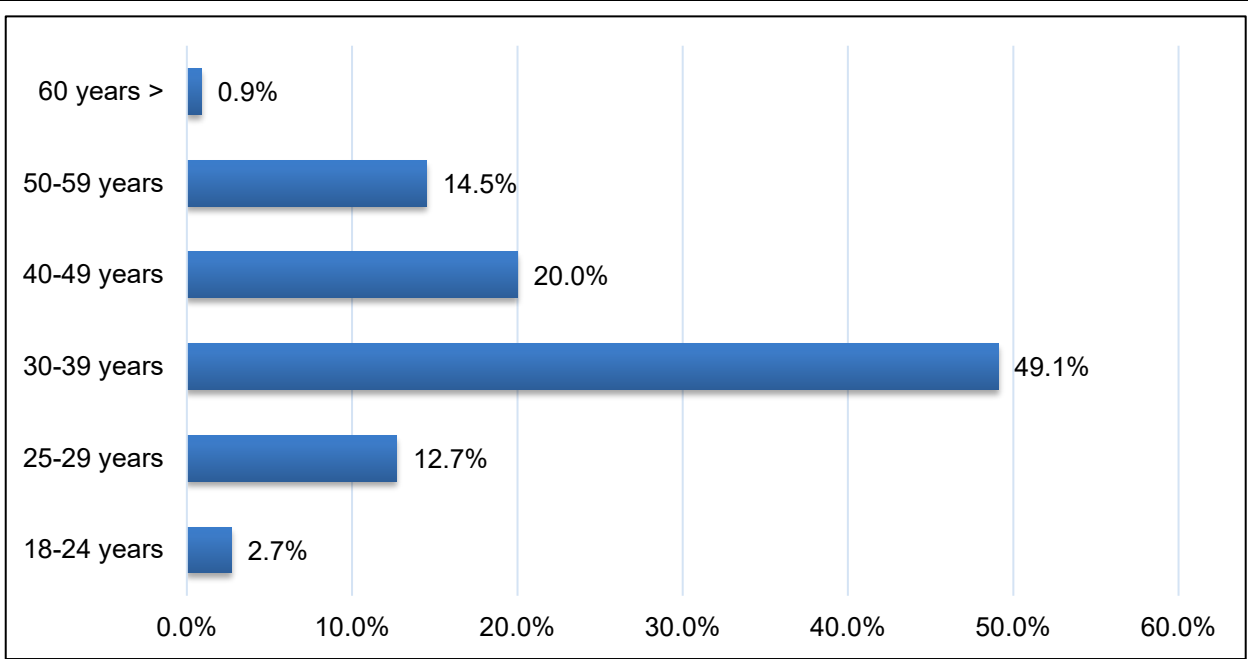


Figure 4-1: Age at last birthday

4.2.2 Current marital status

The majority of females (43.6%) are married with one or more children living at home. The second highest group of females shared a status of being single with no children (20%), closely followed by the third group (18.2%), who are married with no children. This clearly relates to the family and work-life balance that females face in the pursuit of a career, as is indicated in Chapter 2.

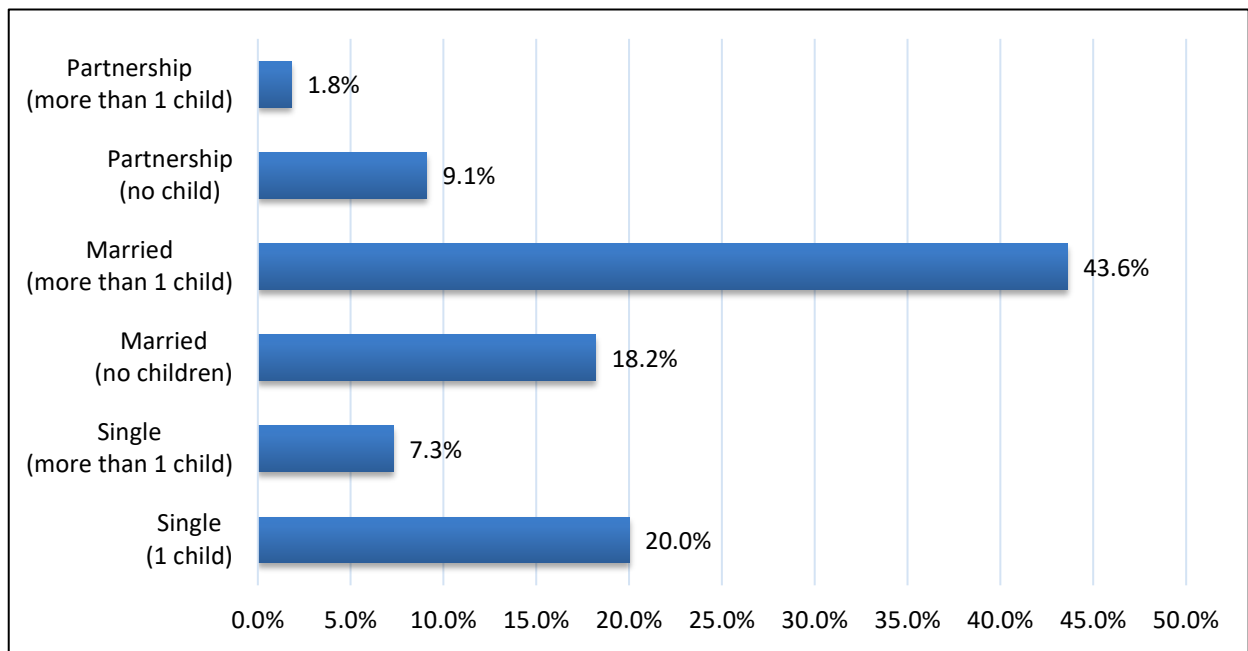


Figure 4-2: Current marital status

4.2.3 Highest qualification obtained

The data reveals that the three highest scoring qualifications are in close proximity to each other, whereby the highest qualification obtained by females is an honours degree (21.8%), closely followed in second place by a bachelor's degree (20%) and thirdly a master's degree (17.3%). Consequently, this affirms the results of previous studies (Chapter 2), which states that education is important to South African females in the business environment (Figure 4-3).

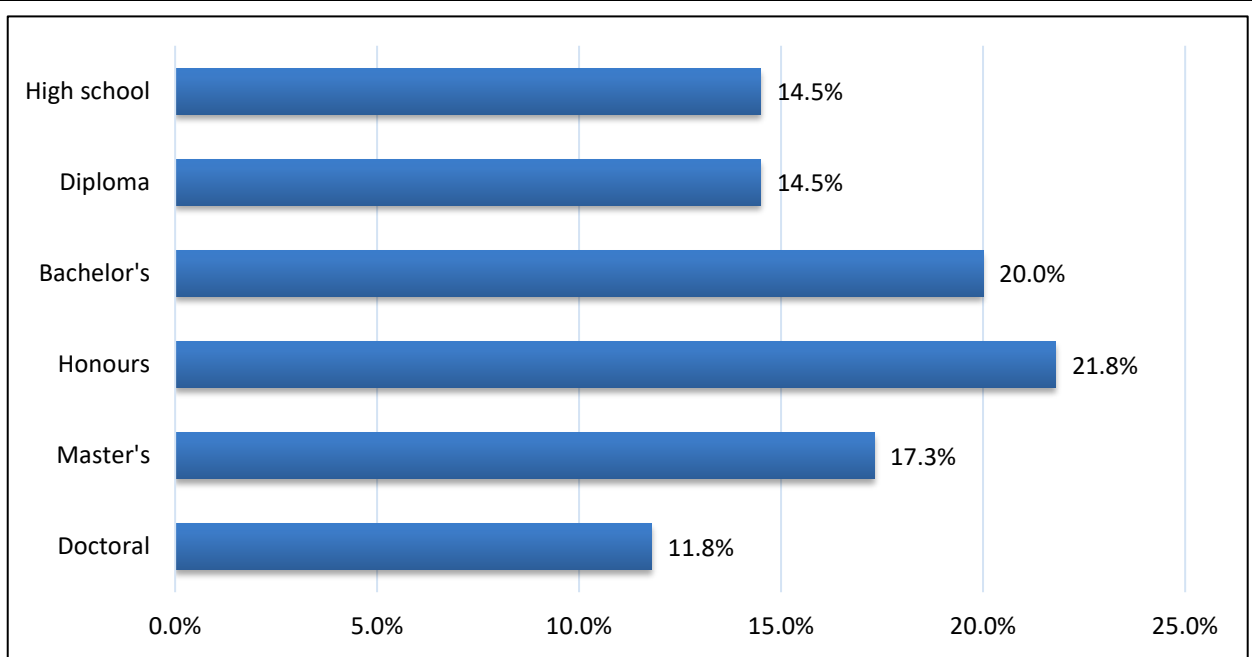


Figure 4-3: Highest qualification obtained

4.2.4 Current work position

The majority of female respondents (33.6%) occupy a middle-managerial-level position. The second highest position that females occupy (24.5%) is office support and the third highest group (20%) is entrepreneurs/business owners (Figure 4-4). This shows that there is growth in terms of females' position within businesses.

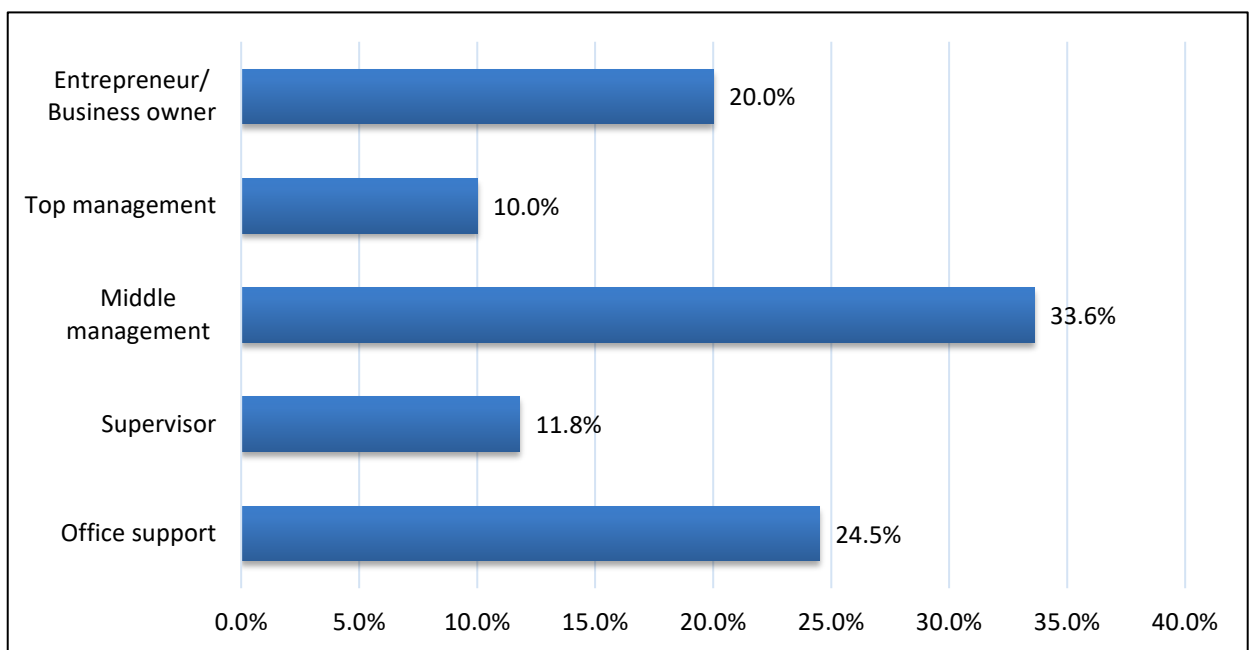


Figure 4-4: Current work position

4.2.5 Number of years at current employer

The highest number of years that females have been working at their current employer (37.3%) is four to 10 years, where 24.5% of respondents have worked one to three years and the third highest group (21.8%) have worked 11 to 15 years at their current employment, as illustrated in Figure 4-5.

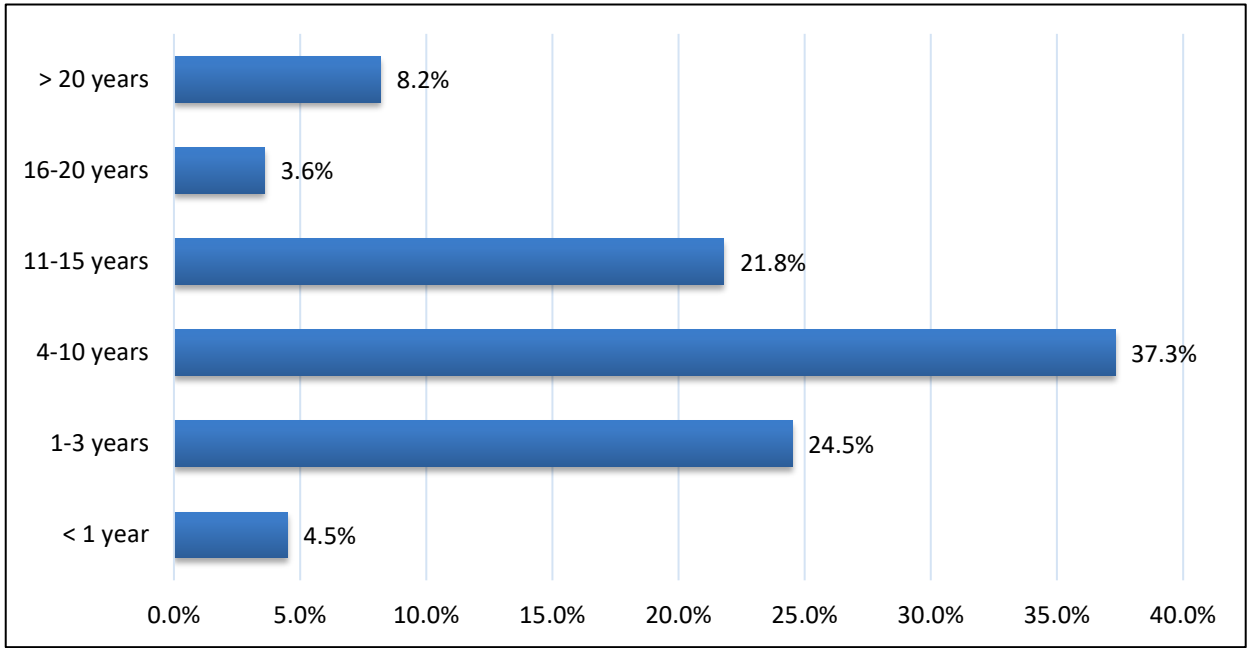


Figure 4-5: Number of years at current employer

4.2.6 Number of years in current position

The highest number of years in current position (37.3%) is four to 10 years, which is closely followed by the second group (36.4%), which is one to three years. The third group has worked less than a year, which made up 7.3% of the respondents of this study.

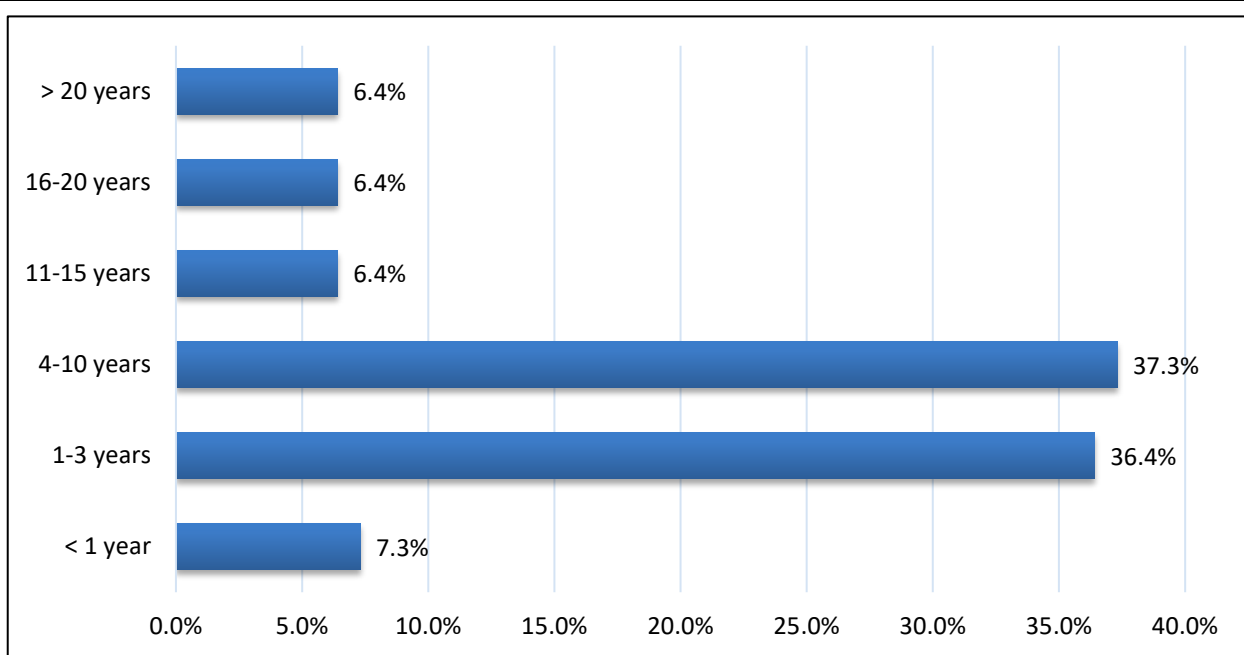


Figure 4-6: Number of years in current position

4.2.7 Number of years' work experience

The majority of respondents (30%) have more than 20 years' work experience, closely followed by the second group (29.1%) who have worked 11 to 15 years. As seen in Figure 4-7, the third group (22.7%) has worked four to 10 years.

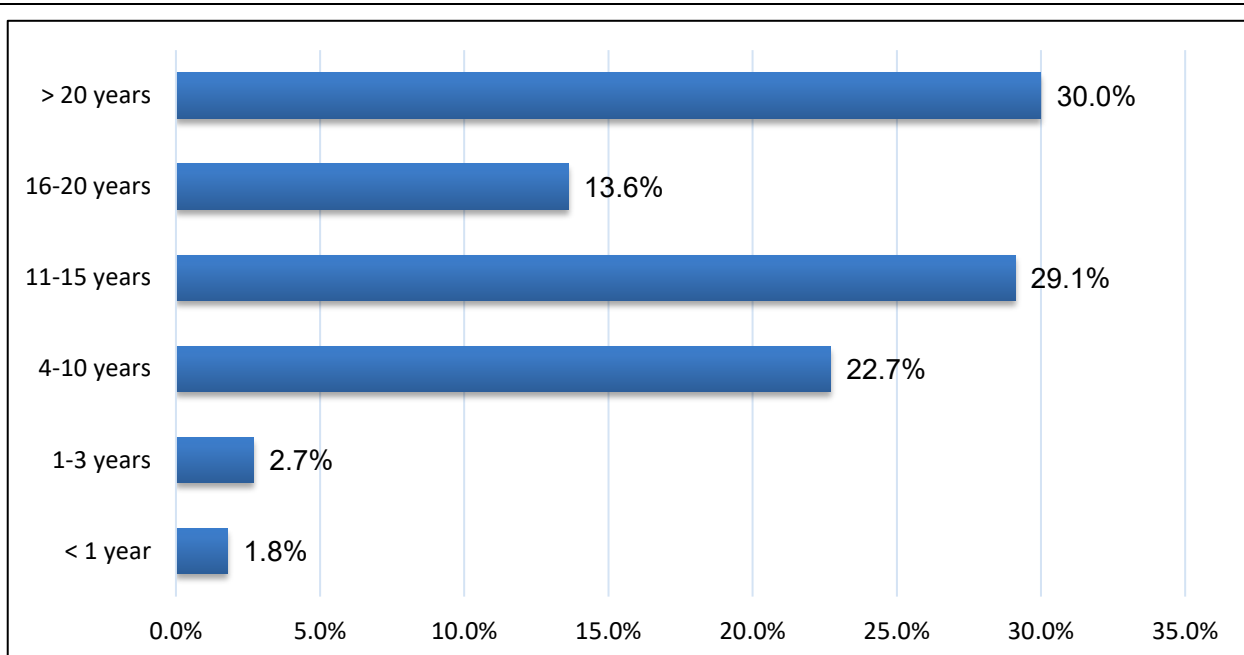


Figure 4-7: Number of years' work experience

4.3 PERCEPTIONS OF FEMALES TOWARDS THE GLASS CEILING IN THEIR CURRENT WORK OR MANAGEMENT LEVEL IN THE BUSINESS ENVIRONMENT OF SOUTH AFRICA

This section addresses the second empirical question of this study – to determine the perceptions of South African females towards the glass ceiling in their current employment level in the business environment, specifically pertaining to the identified factors: denial, resignation, resilience and acceptance. This is based on Section B (items B9-B44) of the questionnaire, which will be divided into (i) descriptive statistics, and (ii) factor analysis of each mentioned factor. Therefore, this section will show the results as follows: denial (section 4.3.1), resignation (section 4.3.2), resilience (section 4.3.3) and acceptance (section 4.3.4).

4.3.1 Results of females’ perceptions of the glass ceiling: Denial

4.3.1.1 Descriptive statistics of denial

Table 4-2 shows the descriptive statistics of denial through the frequencies and percentages as recorded from Section B of the questionnaire (items B9-B18).

Table 4-2: Frequencies and percentages of responses to denial

Scale item		Strongly disagree		Disagree		Agree		Strongly agree	
		f	%	f	%	f	%	f	%
	f=frequency %=percentage								
B9	It is difficult for females to start a career in a male dominant working environment.	7	6.4	23	20.9	43	39.1	37	33.6
B10	Females and males experience the same problems entering the workplace (e.g. required skills, working conditions, pay structure)	30	27.3	42	38.2	27	24.5	11	10
B11	It takes longer for females to reach management positions compared to males.	11	10	19	17.3	42	38.2	38	34.5
B12	Even though females have the same qualifications and skills as their male counterparts, they are not always recognised for promotions.	11	10	23	20.9	44	40	32	29.1
B13	In my organisation, females have reached top management positions.	9	8.2	11	10	34	30.9	56	50.9

Table 4-2: Frequencies and percentages of responses to denial (continued ...)

Scale item		Strongly disagree		Disagree		Agree		Strongly agree	
		f	%	f	%	f	%	f	%
	f=frequency %=percentage								
B14	In my organisation, females are equally recognised for promotion compared to their male counterparts.	14	12.7	20	18.2	36	32.7	40	36.4
B15	In my organisation, females are seldom given full credit for their successes compared to their male counterparts.	40	36.4	32	29.1	23	20.9	15	13.6
B16	In my organisation, females are treated with the same level of respect as their male counterparts.	14	12.7	26	23.6	28	25.5	42	38.2
B17	In my organisation, females who work hard and are committed, have the same career advancement opportunities.	12	10.9	23	20.9	36	32.7	39	35.5
B18	In my organisation, females are treated differently compared to their male counterparts.	34	30.9	31	28.2	26	23.6	19	17.3

This section (B9 to B18) discusses the results pertaining to denial of the females' perception toward the glass ceiling. It is the belief that the glass ceiling is a myth and that females can pursue a career (Bush, 2020:56) and advance into managerial positions if they wish to do so. The results of this study revealed that there is a degree of denial, as 50.9% (B13) of the respondents strongly agreed that females reach top management positions, and 36.4% (B14) strongly agreed that females are equally recognised for promotion. Furthermore, 38.2% (B16) strongly agreed that females are treated the same as males are. Nevertheless, 34.5% (B11) agreed that it takes longer for females than males to reach management positions, while 40% (B12) agreed that females are not always recognised for promotion even though they have the same skills and qualifications as males, and similarly 39.1% (B9) agreed that females have difficulty starting a career in a male-dominant environment. However, 36.4% (B15) of respondents disagreed that females are seldom recognised for their success, and 38.2% (B10) felt that females do not experience the same problems as males when they enter an organisation. These contradictory views may point out that females are in denial toward the glass ceiling, causing an optimistic view that there is not a glass ceiling that hinders their career growth. This is supported by Singh and Malhotra (2017:866), proving the CPS results of Smith *et al.* (2012:68), which state that denial is viewed in a positive manner toward female career growth and that the glass ceiling does not exist (Mohammadkhani

& Gholamzadeh, 2016:278; Balasubramanian & Lathabhavan, 2017:1131; Sing & Malhotra, 2017:866; Bayati & Alavi, 2018:271; Askarian *et al.*, 2020:47; Bush, 2020:56).

4.3.1.2 Factor analysis of denial

Table 4-3 shows the factor analysis of the 10 items in Section B (B9-B18) of the questionnaire on the perception of the glass ceiling pertaining to denial. The shaded areas are grouped together by the factor analysis and portray two factors of denial.

Table 4-3: Factor analysis of denial

	Items	Factor 1	Factor 2
B14	In my organisation, females are equally recognised for promotion compared to their male counterparts.	0.898	
B17	In my organisation, females who work hard and are committed, have the same career advancement opportunities.	0.884	
B16	In my organisation, females are treated with the same level of respect as their male counterparts.	0.840	
B13	In my organisation, females have reached top management positions.	0.650	
B11	It takes longer for females to reach management positions compared to males.		0.829
B12	Even though females have the same qualifications and skills as their male counterparts, they are not always recognised for promotions.		0.805
B9	It is difficult for females to start a career in a male dominant working environment.		0.778
Cronbach's alpha		0.902	0.801
Mean		2.9977	0.84151
Standard deviation		2.0485	0.78054
Key: Factor 1 = Opportunities for promotion and growth Factor 2 = Inequalities in promotion and growth			

Items B10, B15 and B18 had negative (-) correlation results, meaning the relationship between the variables would always be in the opposite direction, the covariance (linear relationship) is a negative value and is difficult to report and interpret. A factor loading less than 0.5 (<0.5) was extracted from the results. With collinearity, the researcher may remove items if it does not influence the study, as was done in this study (Cohen *et al.*, 2018:497; Jaggia & Kelly, 2020:92 & 438). These items will therefore be omitted from the questionnaire when used in future studies.

The factor analysis of denial grouped the seven variables into two groups, relating to promotion and growth, distinguished by (i) the opportunities, and (ii) the inequalities thereof.

As determined by the Kaiser criterion, only eigenvalues greater than one (>1) were used to measure the variance between factors (Cohen *et al.*, 2018:820). The KMO measured the sampling adequacy and the significance of the variable pair, which is met for this factor analysis, with a KMO of 0.858. The Bartlett's test of sphericity, which explored the correlation of variables, showed $p < 0.05$ in significance (Malhotra *et al.*, 2017:711).

The standard deviation of factor 1 (opportunities for promotion and growth) measured 2.0485, which indicates a bigger dispersion from the mean (2.9977); and for factor 2 (inequalities in promotion and growth), at 0.78054, which indicates a dispersion closer to the mean (0.84151) (Rosenstein, 2019:91). Cronbach's alpha measured 0.902 for factor 1 (opportunities for promotion and growth) and 0.801 for factor 2 (inequalities in promotion and growth), which reflect the internal consistency of the scale (which is ideal with values between 0.7 and 0.9) (Creswell & Creswell, 2018:253). This correlates with the results of Smith *et al.* (2012:74) and also Balasubramanian and Lathabhavan (2017:1132), which showed an internal consistency of the factors. Factor 1 with the highest Cronbach alpha of the two, indicates opportunities and growth as an important aspect of females' perception of the glass ceiling. The respondents therefore believed that they have ample opportunities to grow in their organisations. Contradictory to this, the respondents also indicated that it takes longer for females to reach management positions even though they have the same level of qualifications as their male counterparts.

4.3.2 Results of females' perception of the glass ceiling: Resignation

4.3.2.1 Descriptive statistics of resignation

Table 4-4 shows the descriptive statistics of resignation in Section B of the questionnaire (Items B19-B28) through the frequencies and percentages as recorded.

Table 4-4: Frequency and percentage of responses to resignation

Scale item		Strongly disagree		Disagree		Agree		Strongly agree	
		f	%	f	%	f	%	f	%
	f=frequency %=percentage								
B19	In my organisation, female managers find it difficult to address accountability with subordinates.	30	27.3	36	32.7	36	32.7	8	7.3
B20	In my organisation, female managers are more prone to emotional reactions when dealing with crises compared to their male counterparts.	30	27.3	27	24.5	44	40	9	8.2
B21	In my organisation, female managers react differently to their success compared to their male counterparts.	10	9.1	35	31.8	41	37.3	24	21.8
B22	In my organisation, female managers take fewer risks in terms of corporate success and decision-making compared to their male counterparts.	28	25.5	30	27.3	39	35.5	13	11.8
B23	In my organisation, females have to compromise more to gain higher paid positions compared to their male counterparts.	21	19.1	23	20.9	32	29.1	34	30.9
B24	In my organisation, distrust prevents female employees from seeking promotions.	35	31.8	28	25.5	28	25.5	19	17.3
B25	In my organisation, females are less confident than their male counterparts.	39	35.5	38	34.5	20	18.2	13	11.8
B26	In my organisation, females demonstrate a healthy work-life balance.	17	15.5	28	25.5	45	40.9	20	18.2
B27	In my organisation, not all employees are promoted to management positions on equal basis.	26	23.6	33	30	21	19.1	30	27.3
B28	In my organisation, females with leadership potential avoid competing with male counterparts for management positions.	35	31.8	42	38.2	23	20.9	10	9.1

This section (B19-B28) determined the resignation of females towards the glass ceiling, which is a barrier that hinders females from advancing in their careers (Bush, 2020:56). The results of this study show that 30.9% (B23) strongly agreed and 29.1% agreed (60% of respondents) that females compromise more than males to get promoted. Many of the respondents disagreed

(27.3% strongly disagreed and 24.5% disagreed) that females are more prone to react emotionally than their male counterparts in the organisation (B20). More than 30 per cent (37.3%) agreed that females react differently toward success than males do. Surprisingly, a combined 70% (B28) (31.8% strongly disagreed and 38.2% disagreed) dispute that females avoid competing with males for management positions. The respondents also indicated that 40.9% (B26) of females have a healthy work-life balance, which proves that females in this study do experience resignation toward the glass ceiling, but they do not avoid pursuing career advancement, as confirmed by other studies (Smith *et al.*, 2012:72; Mohammadkhani & Gholamzadeh, 2016:278; Balasubramanian & Lathabhavan, 2017:1131; Sing & Malhotra, 2017:866; Bayati & Alavi, 2018:271; Askarian *et al.*, 2020:47; Bush, 2020:56).

4.3.2.2 Factor analysis of resignation

Table 4-5 shows the pattern matrix of the factor analysis of the 10 items in Section B (B19-B28) of the questionnaire on the perception of the glass ceiling pertaining to resignation. The factor analysis of resignation grouped three factors together, as shown in the shaded areas of Table 4-5.

Table 4-5: Factor analysis of resignation

	Items	Factor 1	Factor 2	Factor 3
B24	In my organisation, distrust prevents female employees from seeking promotions.	0.894		
B27	In my organisation, not all employees are promoted to management positions on equal basis.	0.843		
B23	In my organisation, females have to compromise more to gain higher paid positions compared to their male counterparts.	0.799		
B28	In my organisation, females with leadership potential avoid competing with male counterparts for management positions.	0.751		
B22	In my organisation, female managers take fewer risks in terms of corporate success and decision-making compared to their male counterparts.		0.833	
B20	In my organisation, female managers are more prone to emotional reactions when dealing with crises compared to their male counterparts.		0.832	
B19	In my organisation, female managers find it difficult to address accountability with subordinates.		0.509	
B21	In my organisation, female managers react differently to their success compared to their male counterparts.		0.487	

Table 4-5: Factor analysis of resignation (continued ...)

	Items	Factor 1	Factor 2	Factor 3
B25	In my organisation, females are less confident than their male counterparts.		0.479	
B26	In my organisation, females demonstrate a healthy work-life balance.			0.944
Cronbach's alpha		0.848	0.740	-
Mean		2.6068	2.3218	2.6182
Standard deviation		0.88661	0.67135	0.95765
Key: Factor 1 = Obstacles that dilute promotion options Factor 2 = Internal reactions that impact management actions Factor 3 = Work-life balance of females				

The factor analysis of resignation grouped the 10 variables together into three groups relating to (i) obstacles that dilute promotion options, (ii) internal reactions that impact management actions, and (iii) work-life balance of females. The majority of the factors showed statistical significance by scoring a factor loading greater than 0.6 (>0.6), with the exception of three items in the second factor (B19, B21, B25) that scored lower than the norm. The KMO of 0.800 measured the sampling adequacy and the significance of the variable groups. The Bartlett's test of sphericity, which explored the correlation of variables, showed $p < 0.05$ in significance (Cohen *et al.*, 2018:820). The standard deviation indicates the dispersion from the mean (Rosenstein, 2019:91), measured for factor 1 (obstacles that dilute promotion options) at 0.88661 (M=2.6068), for factor 2 (internal reactions that impact management actions) it was 0.67135 (M= 2.3218), and for factor 3 (work-life balance of females) it was 0.95765 (M=2.6182). The Cronbach alpha measured the internal consistency of the used scale (Creswell & Creswell, 2018:253), which was 0.8484 for factor 1 (obstacles that dilute promotion options) and 0.740 for factor 2 (internal reactions that impact management actions), while factor 3 (work-life balance of females) had no value as it was a single item that grouped into this factor and is very reliable on its own. Therefore, factor 1 (obstacles that dilute promotion options) shows great importance towards females' perception of the glass ceiling. These high Cronbach alpha values correlate with the results of Smith *et al.* (2012:74), Balasubramanian and Lathabhavan (2017:1132) and also Bayati and Alavi (2018:271), which showed an internal consistency of the factors. Therefore, due to the high scoring Cronbach alphas on resignation, the scale items used were reliable to measure females' perceptions with regard to resignation of the glass ceiling.

This affirms that even though female employees are paid less than males, they have to compromise more to gain leadership positions, they are not distrusted, they realise their potential and get promoted on an equal basis. Females in the organisation do not find it difficult to address their sub-ordinates when it comes to accountability, they are not scared to take risks, they do not react emotionally differently to males, and they do not react differently from males when they become successful in the business environment.

4.3.3 Results of females' perception of the glass ceiling: Resilience

4.3.3.1 Descriptive statistics of resilience

Table 4-6 shows the descriptive statistics of resilience in Section B of the questionnaire (items B29-B39) through the frequencies and percentages as recorded.

Table 4-6: Frequency and percentage of responses to resilience

Scale item		Strongly disagree		Disagree		Agree		Strongly agree	
		f	%	f	%	f	%	f	%
	f=frequency %=percentage								
B29	In my organisation, females in management positions pave the way to promotion for other female employees.	15	13.6	25	22.7	39	35.5	31	28.2
B30	In my organisation, female employees with higher qualifications are more likely to be promoted.	10	9.1	27	24.5	38	34.5	35	31.8
B31	In my organisation, females have the opportunity to reach their full potential.	11	10	17	15.5	41	37.3	41	37.3
B32	In my organisation, females in management positions achieve the same level of outcomes as their male counterparts.	9	8.2	22	20	33	30	46	41.8
B33	Females are inspired to become successful business managers if they are exposed to other female leaders within their society.	3	2.7	11	10	40	36.4	56	50.9
B34	In my organisation, females demonstrate the ability to make important decisions during critical situations.	2	1.8	5	4.5	37	33.6	66	60
B35	In my organisation, females with a support structure can progress more in their career.	0	0	6	5.5	32	29.1	72	65.5

Table 4-6: Frequency and percentage of responses to resilience (continued ...)

Scale item		Strongly disagree		Disagree		Agree		Strongly agree	
		f	%	f	%	f	%	f	%
	f=frequency %=percentage								
B36	My organisation seeks out talented female employees.	14	12.7	23	20.9	32	29.1	41	37.3
B37	My organisation provides support in the form of mentorship and career path development to females to ensure they advance in their careers.	13	11.8	33	30	31	28.2	33	30
B38	Females' nurturing skills help them to be successful leaders.	3	2.7	17	15.5	48	43.6	42	38.2
B39	In my organisation, females have the opportunity to network with internal and external stakeholders to advance in their careers.	9	8.2	24	21.8	52	47.3	25	22.7

This section (B29-B39) determined the resilience of females towards the glass ceiling. As established in Chapter 3, this happens when females' attitudes lean towards overcoming career barriers (Mohammadkhani & Gholamzadeh, 2016:278), as the results of this study show resounding evidence that the respondents are resilient towards the glass ceiling. It was found that 94.6% (of whom 65.5% strongly agreed and 29.1% agreed) felt that support can progress their careers; likewise, 87.3% (of whom 50.9% strongly agreed and 36.4% agreed) of females confirm that they are inspired by other female leaders. Furthermore, 93.6% (of whom 60% strongly agreed and 33.6% agreed) felt that females can make critical decisions when needed. Interestingly, 81.8% (of whom 38.2% strongly agreed and 43.6% agreed) felt that their nurturing skills contribute to their success as a leader. This affirms females' resilience toward glass ceiling and that they are able to overcome barriers; in general, they work harder to be promoted (Smith *et al.*, 2012:72; Mohammadkhani & Gholamzadeh, 2016:278; Balasubramanian & Lathabhavan, 2017:1131; Sing & Malhotra, 2017:866; Bayati & Alavi, 2018:271; Askarian *et al.*, 2020:47; Bush, 2020:56). This has also been confirmed by Tabassum *et al.* (2018:242), who found, apart from the CPS scale, that resilience is preceded by the work environment and procedures that enable females' progress.

4.3.3.2 Factor analysis of resilience

Table 4-7 shows a pattern matrix of the factor analysis of the 11 items in Section B (B29-B39) of the questionnaire on perception of the glass ceiling pertaining to resilience. The factor analysis grouped four factors together for resilience, as displayed in the shaded areas of Table 4-7.

Table 4-7: Factor analysis of resilience

	Items	Factor 1	Factor 2	Factor 3	Factor 4
B36	My organisation seeks out talented female employees.	0.872			
B31	In my organisation, females have the opportunity to reach their full potential.	0.826			
B39	In my organisation, females have the opportunity to network with internal and external stakeholders to advance in their careers.	0.814			
B37	My organisation provides support in the form of mentorship and career path development to females to ensure they advance in their careers.	0.809			
B29	In my organisation, females in management positions pave the way to promotion for other female employees.	0.475			
B33	Females are inspired to become successful business managers if they are exposed to other female leaders within their society.		0.869		
B35	In my organisation, females with a support structure can progress more in their career.		0.582		
B34	In my organisation, females demonstrate the ability to make important decisions during critical situations.			0.856	
B32	In my organisation, females in management positions achieve the same level of outcomes as their male counterparts.			0.552	
B30	In my organisation, female employees with higher qualifications are more likely to be promoted.			0.476	
B38	Females' nurturing skills help them to be successful leaders.				0.816
Cronbach's alpha		0.841	0.507	0.517	-
Mean		2.8636	3.4773	3.1545	3.1727
Standard deviation		0.7677	0.5642	0.6284	0.7882
<p>Key: Factor 1 = Organisational support towards career growth Factor 2 = Effect of external support on female success Factor 3 = Results of management practices by females Factor 4 = Contribution of nurturing skills on success</p>					

The factor analysis of resilience grouped the 11 variables together into four groups relating to (i) organisational support towards career growth, (ii) effect of external support on female success, (iii) results of management practices by females, and (iv) contribution of nurturing skills to success. The majority of the factors showed statistical significance by scoring a factor loading greater than 0.6 (>0.6), with the exception of four items: B29, B30, B32 and B35 that scored lower. Eigenvalues greater than one (>1) were used, as determined by the Kaiser criterion, to measure the variance between factors (Cohen et al., 2018:820). The KMO of 0.793 measured the sampling adequacy and the significance of the variable grouping, while the Bartlett's test of sphericity, which explored the correlation of variables, showed $p < 0.05$ in significance (Malhotra et al., 2017:711). The standard deviation indicates the dispersion from the mean (Rosenstein, 2019:91), which measured 0.76766 for factor 1 (organisational support towards career growth) ($M=2.8636$), factor 2 (effect of external support on female success) was 0.56427 ($M=3.4773$), factor 3 (results of management practices by females) was 0.62838 ($M=3.1545$), and factor 4 (contribution of nurturing skills on success) was 0.78821 ($M=3.1727$).

The Cronbach alpha quantifies the internal consistency of the scale, with optimal values between 0.7 and 0.9 (Creswell & Creswell, 2018:253) measured for factors 1 to 3, respectively: (1) 0.841, (2) 0.507, (3) 0.517, while factor 4 (contribution of nurturing skills on success) had no value as it was a single item that grouped into this factor and is very reliable on its own. Therefore, factor 1 (organisational support towards career growth) shows great importance towards influencing females' perception of the glass ceiling. These Cronbach alpha values correlate with the results of Smith *et al.* (2012:74), Balasubramanian and Lathabhavan (2017:1132) and also Askarian *et al.* (2020:47), which showed an internal consistency of the factors, concluding that the scale items used were reliable to measure females' perception with regard to resilience of the glass ceiling.

The results indicated that females in leadership or management positions within the organisation pave the way for other females to advance in their careers. The respondents also indicated that females with higher qualifications are more likely to get promoted. Irrespective whether they are females, they can reach the same level of outcomes as males. As females in leadership and management have become a strong focus in South Africa and across the globe (UN Women, 2020:17; OECD, 2015:30; Risner, 2012; BWASA, 2017), organisations now have mentorship programmes in place for females to develop in management and expose them to networking with external and internal stakeholders. The results further highlight the importance of females' exposure to other successful female leaders in society (Risner, 2012; Masombuka, 2018; BWASA, 2017).

4.3.4 Results of females' perceptions of the glass ceiling: Acceptance

4.3.4.1 Descriptive statistics of acceptance

Table 4-8 shows the descriptive statistics of acceptance in Section B of the questionnaire (items B40-B44) through the frequencies and percentages as recorded.

Table 4-8: Frequency and percentage of responses to acceptance

Scale item		Strongly disagree		Disagree		Agree		Strongly agree	
		f	%	f	%	f	%	f	%
	f=frequency %=percentage								
B40	In my organisation, females demonstrate the same level of ambition as their male counterparts.	6	5.5	14	12.7	38	34.5	52	47.3
B41	In my organisation, females demonstrate the same aspiration for management positions as their male counterparts.	2	1.8	23	20.9	36	32.7	49	44.5
B42	Females would rather have a successful family life than develop a career.	21	19.1	47	42.7	32	29.1	10	9.1
B43	In my organisation, females are less concerned about promotions than their male counterparts.	39	35.5	45	40.9	21	19.1	5	4.5
B44	In my organisation, females are less committed to working long hours than their male counterparts.	58	52.7	29	26.4	13	11.8	10	9.1

This section (B40-B44) determined the acceptance of females towards the glass ceiling. As elucidated in Chapter 3, it is the belief that females prefer a family life rather than a career (Mohammadkhani & Gholamzadeh, 2016:278). However, the results for this study indicated that females would not prefer a successful family life above a successful career. This is confirmed by a total of 81.8% (47.3% strongly agreed and 34.5% agreed) of females who have the same ambition as males, a total of 77.2% (44.5% strongly agreed and 32.7% agreed) confirmed that they aspire as much as males to reach management positions, and 79.1% (52.7% strongly disagreed and 26.4% disagreed) of the respondents indicated that they are not less committed to working longer hours. Likewise, 61.8% (42.7% disagreed and 19.1% strongly disagreed) of the respondents indicated that females do not prefer a family life over a career. This sample group does, however, not accept the glass ceiling believes that females prefer other goals than to grow in their career, which confirms the results of other studies (Smith *et al.*, 2012:72; Mohammadkhani

& Gholamzadeh, 2016:278; Balasubramanian & Lathabhavan, 2017:1131; Sing & Malhotra, 2017:866; Bayati & Alavi, 2018:271; Askarian *et al.*, 2020:47; Bush, 2020:56).

4.3.4.2 Factor analysis of acceptance

Table 4-9 shows the pattern matrix of the factor analysis of the five items in Section B (B40-B44) of the questionnaire on perception of the glass ceiling pertaining to acceptance. The shaded areas are grouped together by the factor analysis and portray two factors of acceptance.

Table 4-9: Factor analysis of acceptance

	Items	Factor 1	Factor 2
B42	Females would rather have a successful family life than develop a career.	0.878	
B43	In my organisation, females are less concerned about promotions than their male counterparts.	0.838	
B44	In my organisation, females are less committed to working long hours than their male counterparts.	0.668	
B40	In my organisation, females demonstrate the same level of ambition as their male counterparts.		0.969
B41	In my organisation, females demonstrate the same aspiration for management positions as their male counterparts.		0.907
Cronbach's alpha		0.721	0.881
Mean		3.0061	3.2182
Standard deviation		0.72663	0.80858
Key: Factor 1 = Motivation towards work-life balance Factor 2 = Motivation towards career growth			

The factor analysis of acceptance grouped the five variables together into two groups relating to motivation towards (i) work-life balance, and (ii) career growth. The majority of the factors showed statistical significance by scoring a factor loading greater than 0.6 (>0.6). Only eigenvalues greater than one (>1) were used, as determined by the Kaiser criterion, to measure the variance between factors (Cohen *et al.*, 2018:820). The KMO of 0.689 measured the sampling adequacy and the significance of the variable pair, while the Bartlett's test of sphericity explored the correlation of variables, showing $p < 0.05$ in significance (Malhotra *et al.*, 2017:711). Standard deviation shows a dispersion closer to the mean (Rosenstein, 2019:91), which was 0.72663 (M=3.0061) for factor 1 (motivation towards work-life balance) and 0.80858 (M=3.2182) for factor 2 (motivation towards career growth). The Cronbach alpha measured the internal consistency of

the scales, with ideal values being between 0.7 and 0.9 (Creswell & Creswell, 2018:253), and measured 0.721 for factor 1 (motivation towards work-life balance) and 0.881 for factor 2 (motivation towards career growth). Therefore, factor 2 (motivation towards career growth) indicates a great importance that influences females' perception of the glass ceiling. The results of acceptance confirm the studies of Smith *et al.* (2012:74), Balasubramanian and Lathabhavan (2017:1132), and Mohammadkhani and Gholamzadeh (2016:278), which showed an internal consistency of the acceptance factor used for this study to measure the glass ceiling.

4.4 RELATIONSHIP BETWEEN THE FACTORS THAT INFLUENCE FEMALES' PERCEPTION OF THE GLASS CEILING WITHIN THE SOUTH AFRICAN BUSINESS ENVIRONMENT

This section aims to verify the *relationships (correlation) that exist between the CPS factors that would influence females' perceptions of the glass ceiling* (Rosenstein, 2019:120). This will be explored through the relationships between marital status and the CPS factors (section 4.4.1), level of qualification and the CPS factors (section 4.4.2), managerial level and the CPS factors (section 4.4.3), demographic items and the CPS factors (section 4.4.4), and correlation between the CPS factors (section 4.4.5).

4.4.1 Correlation between marital status and the CPS factors

The researcher wanted to establish the effect that marital status had on the CPS factors. The results, as provided in Table 4-10, show the p-value per factor and the effect sizes to establish the differences between females who are married or single, with females in domestic partnerships. Even though the p-values are included and reported, the focus is on the effect sizes to determine the extent of the difference between the groups. This study used Cohen's d to illustrate the difference between the means (Daniels & Minot, 2020:152), where a d-value less than 0.2 (<0.2) indicates a small effect with no significant difference; more than 0.5 (>0.5) indicates a medium effect which, tends towards a practically significant difference; and 0.8, which indicates a large effect with a practically significant difference. Values from 0.4 to 0.45 and above are highlighted and discussed.

The null and alternative hypotheses are stated as follows:

H₀1: There is no positive relationship between marital status and the CPS factors

H_a1: There is a positive relationship between marital status and the CPS factors.

Table 4-10: Correlation between marital status and the CPS factors

Marital status	N	Mean	Standard deviation	P-value	Effect sizes (Cohen's d)	
					Single	Married
Denial: Opportunities for promotion and growth						
Single	30	3.02	0.75			
Married	68	2.94	0.86		0.08	
Domestic partners	12	3.25	0.95		0.25	0.32
Total	110	3.00	0.84	0.510		
Denial: Inequalities in promotion and growth						
Single	30	2.04	0.73			
Married	68	2.10	0.81		0.07	
Domestic partners	12	1.75	0.73		0.40*	0.44*
Total	110	2.05	0.78	0.356		
Resignation: Obstacles that dilute promotion options						
Single	30	2.68	0.84			
Married	68	2.54	0.92		0.16	
Domestic partners	12	2.79	0.84		0.13	0.27
Total	110	2.61	0.89	0.574		
Resignation: Internal reactions that impact management actions						
Single	30	2.37	0.76			
Married	68	2.28	0.61		0.12	
Domestic partners	12	2.42	0.81		0.05	0.17
Total	110	2.32	0.67	0.726		
Resignation: Work-life balance of females						
Single	30	2.77	0.94			
Married	68	2.56	0.90		0.22	
Domestic partners	12	2.58	1.31		0.14	0.02
Total	110	2.62	0.96	0.611		

Table 4-10: Correlation between marital status and the CPS factors (continued ...)

Marital status	N	Mean	Standard deviation	P-value	Effect sizes (Cohen's d)	
					Single	Married
Resilience: Organisational support towards career growth						
Single	30	2.87	0.79			
Married	68	2.79	0.72		0.11	
Domestic partners	12	3.28	0.91		0.45*	0.55**
Total	110	2.86	0.77	0.116		
Resilience: Effect of external support on female success						
Single	30	3.28	0.68			
Married	68	3.54	0.49		0.38	
Domestic partners	12	3.58	0.60		0.44*	0.07
Total	110	3.48	0.56	0.084		
Resilience: Results of management practices by females						
Single	30	3.11	0.49			
Married	68	3.15	0.66		0.06	
Domestic partners	12	3.28	0.76		0.22	0.16
Total	110	3.15	0.63	0.742		
Resilience: Contribution of nurturing skills on success						
Single	30	3.00	0.91			
Married	68	3.24	0.74		0.26	
Domestic partners	12	3.25	0.75		0.27	0.02
Total	110	3.17	0.79	0.374		

Table 4-10: Correlation between marital status and the CPS factors (continued ...)

Marital status	N	Mean	Standard deviation	P-value	Effect sizes (Cohen's d)	
					Single	Married
Acceptance: Motivation towards work-life balance						
Single	30	3.11	0.71			
Married	68	2.93	0.70		0.26	
Domestic partners	12	3.19	0.90		0.09	0.30
Total	110	3.01	0.73	0.328		
Acceptance: Motivation towards career growth						
Single	30	3.27	0.80			
Married	68	3.12	0.80		0.19	
Domestic partners	12	3.67	0.78		0.50**	0.68**
Total	110	3.22	0.81	0.088		
*d ≤ 0.2 small effect with no practically significant difference **d 0.5 ≤ 0.8 medium effect tends towards a practically significant difference ***d ≥ 0.8 large effect with practically significant difference						

The factor of denial (inequalities in promotion and growth) has a $p=0.356$, the means of single ($M=2.04$) and married ($M=2.10$) differed from domestic partners ($M=1.75$), which indicates a difference of $d=0.40$ (single) and $d=0.44$ (married) with domestic partners. Therefore, females in a domestic partnership tend to be less in denial about the presence of inequalities toward their career growth than what the single and married females are; they can, therefore accept the inequalities easier and not be deterred to seek promotion or growth.

At resilience (organisational support towards career growth), $p=0.116$, single ($M=2.87$) and married ($M=2.79$) differed from domestic partners ($M=3.28$) and showed $d=0.45$ (single) and $d=0.55$ (married). Therefore, females in domestic partnerships tend to have a higher resilience towards organisational support to grow their careers than the females of the other marital status groups, and therefore they feel positive that the organisational support will cause their career to grow.

Domestic partners ($M=3.58$) pertaining to resilience (effect of external support on female success) differed from singles ($M=3.28$) with $p=0.084$ and $d=0.44$. Therefore, females in domestic

partnerships tend to have a higher resilience towards external support towards their success than single females, and therefore they feel positive that the support will cause their career to grow.

At acceptance (motivation towards career growth), domestic partners (M=3.67) differed from singles (M=3.27) with $d=0.50$ and from married (M=3.12) with $d=0.68$, where $p=0.088$, which indicates a medium effect. Therefore, females in domestic partnerships tend to be motivated easier towards career growth than the other marital status groups.

Consequently, as is evident from the above, it is concluded that the H_{01} hypothesis is rejected and the H_{a1} hypothesis is accepted; it is evident that a positive relationship exists between marital status and the CPS factors.

4.4.2 Correlation between qualification and the CPS factors

In this section, the researcher wanted to establish the effect that the level of qualification had on the CPS factors. The results, as provided in Table 4-11, show the p-value per factor and the effect sizes to establish the differences between the level of qualification (high school, diploma, bachelor's, honours, master's, and doctoral degree). Even though the p-values are included, this section focuses on the effect sizes to determine the extent of the difference between the groups.

The null and alternative hypotheses are stated as follows:

H_{02} : There is no positive relationship between academic qualification and the CPS factors

H_{a2} : There is a positive relationship between academic qualification and the CPS factors.

Table 4-11: Correlation between qualification and the CPS factors

Qualification	N	Mean	Standard deviation	P-value	Effect sizes (Cohen's d)				
					High school	Diploma	B-degree	Honours	Master
Denial: Opportunities for promotion and growth									
High school	16	2.81	1.15						
Diploma	16	3.20	0.60		0.34				
Bachelor's	22	2.78	0.78		0.02	0.53			
Honours	24	3.10	0.91		0.25	0.11	0.35		
Master's	19	3.13	0.78		0.28	0.09	0.44*	0.03	
Doctoral	13	2.94	0.70		0.11	0.37	0.20	0.18	0.24
Total	110	3.00	0.84	0.548					

Table 4-11: Correlation between qualification and the CPS factors (continued ...)

Qualification	N	Mean	Standard deviation	P-value	Effect sizes (Cohen's d)				
					High school	Diploma	B-degree	Honours	Master
Denial: Inequalities in promotion and growth									
High school	16	2.02	0.78						
Diploma	16	2.13	0.72		0.13				
Bachelor's	22	1.79	0.60		0.30	0.47*			
Honours	24	2.40	0.90		0.43	0.31	0.69**		
Master's	19	1.98	0.81		0.05	0.18	0.24	0.47	
Doctoral	13	1.87	0.74		0.19	0.34	0.11	0.59**	0.14
Total	110	2.05	0.78	0.134					
Resignation: Obstacles that dilute promotion options									
High school	16	2.50	1.01						
Diploma	16	2.84	0.78		0.34				
Bachelor's	22	2.39	1.04		0.11	0.44*			
Honours	24	2.80	0.87		0.30	0.05	0.40		
Master's	19	2.74	0.81		0.23	0.13	0.34	0.08	
Doctoral	13	2.27	0.62		0.23	0.73**	0.11	0.62**	0.57* *
Total	110	2.61	0.89	0.290					
Resignation: Internal reactions that impact management actions									
High school	16	2.38	0.62						
Diploma	16	2.33	0.80		0.06				
Bachelor's	22	2.30	0.75		0.10	0.03			
Honours	24	2.30	0.57		0.12	0.03	0.00		
Master's	19	2.34	0.80		0.05	0.01	0.05	0.05	
Doctoral	13	2.31	0.47		0.11	0.02	0.01	0.01	0.04
Total	110	2.32	0.67	0.999					

Table 4-11: Correlation between qualification and the CPS factors (continued ...)

Qualification	N	Mean	Standard deviation	P-value	Effect sizes (Cohen's d)				
					High school	Diploma	B-degree	Honours	Master
Resignation: Work-life balance of females									
High school	16	2.88	1.02						
Diploma	16	2.31	0.79		0.55**				
Bachelor's	22	2.73	0.94		0.14	0.44*			
Honours	24	2.58	0.88		0.28	0.31	0.15		
Master's	19	2.63	1.16		0.21	0.27	0.08	0.04	
Doctoral	13	2.54	0.97		0.33	0.23	0.20	0.05	0.08
Total	110	2.62	0.96	0.679					
Resilience: Organisational support towards career growth									
High school	16	2.69	1.01						
Diploma	16	3.03	0.90		0.33				
Bachelor's	22	2.89	0.70		0.20	0.15			
Honours	24	2.82	0.71		0.13	0.23	0.10		
Master's	19	2.93	0.49		0.24	0.11	0.05	0.15	
Doctoral	13	2.83	0.88		0.14	0.22	0.07	0.02	0.11
Total	110	2.86	0.77	0.879					
Resilience: Effect of external support on female success									
High school	16	3.44	0.57						
Diploma	16	3.53	0.50		0.16				
Bachelor's	22	3.68	0.48		0.43	0.30			
Honours	24	3.38	0.56		0.11	0.28	0.55**		
Master's	19	3.37	0.70		0.10	0.23	0.45*	0.01	
Doctoral	13	3.46	0.56		0.04	0.13	0.40*	0.16	0.13
Total	110	3.48	0.56	0.470					

Table 4-11: Correlation between qualification and the CPS factors (continued ...)

Qualification	N	Mean	Standard deviation	P-value	Effect sizes (Cohen's d)				
					High school	Diploma	B-degree	Honours	Master
Resilience: Results of management practices by females									
High school	16	2.92	0.76						
Diploma	16	3.40	0.49		0.63**				
Bachelor's	22	3.05	0.63		0.17	0.56**			
Honours	24	3.08	0.63		0.22	0.50**	0.06		
Master's	19	3.33	0.60		0.55**	0.10	0.46*	0.40	
Doctoral	13	3.21	0.59		0.38	0.33	0.25	0.19	0.21
Total	110	3.15	0.63	0.202					
Resilience: Contribution of nurturing skills on success									
High school	16	3.25	0.68						
Diploma	16	3.06	0.85		0.22				
Bachelor's	22	3.23	0.75		0.03	0.19			
Honours	24	3.17	0.70		0.12	0.12	0.08		
Master's	19	3.16	1.07		0.09	0.09	0.06	0.01	
Doctoral	13	3.15	0.69		0.14	0.11	0.10	0.02	0.00
Total	110	3.17	0.79	0.989					
Acceptance: Motivation towards work-life balance									
High school	16	2.90	0.75						
Diploma	16	2.85	0.75		0.06				
Bachelor's	22	2.98	0.79		0.11	0.17			
Honours	24	2.86	0.61		0.05	0.01	0.16		
Master's	19	3.21	0.77		0.41*	0.46*	0.29	0.45*	
Doctoral	13	3.33	0.65		0.59**	0.64**	0.44*	0.72**	0.16
Total	110	3.01	0.73	0.291					

Table 4-11: Correlation between qualification and the CPS factors (continued ...)

Qualification	N	Mean	Standard deviation	P-value	Effect sizes (Cohen's d)				
					High school	Diploma	B-degree	Honours	Master
Acceptance: Motivation towards career growth									
High school	16	3.03	0.96						
Diploma	16	3.25	0.75		0.23				
Bachelor's	22	3.41	0.70		0.39	0.21			
Honours	24	3.08	0.88		0.05	0.19	0.37		
Master's	19	3.16	0.87		0.13	0.11	0.29	0.08	
Doctoral	13	3.42	0.64		0.41	0.23	0.02	0.39	0.31
Total	110	3.22	0.81	0.600					
<p>*d ≤ 0.2 small effect with no practically significant difference **d 0.5 ≤ 0.8 medium effect tends towards a practically significant difference ***d ≥ 0.8 large effect with practically significant difference</p>									

From Table 4-11 above, denial (opportunities for promotion and growth) shows a significant difference ($d=0.44$) between bachelor's ($M=2.78$) and master's ($M=3.13$) at $p=0.548$. Therefore, females with master's degrees tends to be less in denial about their promotion and growth opportunities than those females with a bachelor's degree.

With denial (inequalities in promotion and growth) at $p=0,134$, diplomas ($M=2.13$) feel more denial than bachelor's ($M=1.79$) at $d=0.47$; but bachelor's ($M=1.79$) feel less denial than honours ($M=2.40$) at $d=0.69$; and honours ($M=2.40$) feel more denial than doctoral ($M=1.87$) at $d=0.59$. Therefore, females with higher levels of qualification tends to be less in denial toward growth and promotion inequality; therefore, they are more aware of the inequalities than the females with lower qualifications.

At resignation (obstacles that dilute promotion options), with $p=0.290$, diplomas ($M=2.84$) feel more resignation than bachelor's ($M=2.39$) at $d=0.44$, and also more than doctoral ($M=2.27$) at $d=0.73$. Furthermore, doctoral ($M=2.27$) are less resigned than honours ($M=2.8$) at $d=0.62$ and also less than master's ($M=2.74$) at $d=0.57$. Therefore, females with higher qualifications tend to experience fewer obstacles towards promotion and are more likely to shatter the glass ceiling.

At resignation (work-life balance), $p=0.679$, high school ($M=2.88$) feels more resignation than diplomas ($M=2.31$) at $d=0.55$; but diplomas ($M=2,31$) feel less resignation than bachelor's

(M=2.73) at $d=0.44$ with regard to balancing their work-life. Consequently, females who have lower qualifications tend to accept a work-life balance as the norm and that it is part of their life, and therefore they do not question the status quo as much as higher qualified females would.

At resilience (effect of external support on female success), $p=0.470$, the bachelor's (M=3.68) are more resilient than the honours (M=3.38) at $d=0.55$ and also toward the master's (M=3.37) at $d=0.45$. Therefore, females with higher qualifications tend to be less dependent on external support to have success, and therefore they display a higher level of resilience.

While the resilience (result of management practices by females) with $p=0.202$, high school (M=2.92) are less resilient than the diplomas (M=3.40) with $d=0.63$ and less than master's (M=3.33) at $d=0.55$. Furthermore, diplomas (M=3.40) are more resilient than bachelor's (M=3.05) at $d=0.56$, and more than the honours (M=3.08) at $d=0.50$; however, the master's (M=3.33) are more resilient than the bachelors (M=3.05) at $d=0.46$, and also more than honours (M=3.08) at $d=0.40$). Therefore, females with higher qualifications tend to be more resilient due to their inclusion of management practices; consequently, they are more likely to break the glass ceiling as they feel included and part of the management environment.

At acceptance (motivation towards work-life balance), $p=0.291$, doctoral (M=3.33) are more acceptant than high school (M=2.90) at $d=0.59$, and bachelor's (M=2.98) at $d=0.44$ and honours (M=2.86) at $d=0.72$. Master's (M=3.21) are more acceptant than diploma (M=2.85) at $d=0.46$. Therefore, females with a higher qualifications tend to be more accepting to the fact that they have to balance their work-life.

Consequently, it is evident from the above discussion that the H_02 hypothesis is rejected, and the H_a2 hypothesis is accepted, as a positive relationship exists between academic qualifications and the CPS factors.

4.4.3 Correlation between management level and the CPS factors

In this section, the researcher wanted to establish the effect that the management level had on the CPS factors. The results, displayed in Table 4-12, show the p-value per factor and the effect sizes to establish the differences between the management levels (office support, supervisor, middle management, business owner/entrepreneur, and top management). Even though the p-values are included, this section focuses on the effect sizes to determine the extent of the difference between the groups.

The null and alternative hypotheses are stated as follows:

H₀3: There is no positive relationship between employment position and the CPS factors

H_a3: There is a positive relationship between employment position and the CPS factors.

Table 4-12: Correlation between management level and the CPS factors

Management level	N	Mean	Standard deviation	P-value	Effect sizes (Cohen's d)			
					Office support	Super-visor	Middle manager	Top manager
Denial: Opportunities for promotion and growth								
Office support	27	2.86	0.81					
Supervisor	13	3.00	0.80		0.17			
Middle management	37	3.01	0.82		0.18	0.01		
Top management	11	3.25	0.74		0.48*	0.31	0.30	
Entrepreneur	22	3.02	1.01		0.16	0.02	0.02	0.23
Total	110	3.00	0.84	0.793				
Denial: Inequalities in promotion and growth								
Office support	27	1.96	0.72					
Supervisor	13	1.82	0.60		0.20			
Middle management	37	2.14	0.98		0.18	0.32		
Top management	11	2.12	0.45		0.22	0.50**	0.01	
Entrepreneur	22	2.11	0.71		0.20	0.40*	0.03	0.02
Total	110	2.05	0.78	0.724				
Office support	27	1.96	0.72					

Table 4-12: Correlation between management level and the CPS factors (continued ...)

Management level	N	Mean	Standard deviation	P-value	Effect sizes (Cohen's d)			
					Office support	Super-visor	Middle manager	Top manager
Resignation: Obstacles that dilute promotion options								
Office support	27	2.51	0.81					
Supervisor	13	2.63	0.88		0.14			
Middle management	37	2.58	0.93		0.08	0.06		
Top management	11	2.68	0.72		0.21	0.05	0.11	
Entrepreneur	22	2.72	1.03		0.20	0.08	0.13	0.03
Total	110	2.61	0.89	0.943				
Resignation: Internal reactions that impact management actions								
Office support	27	2.36	0.62					
Supervisor	13	2.22	0.79		0.19			
Middle management	37	2.30	0.66		0.09	0.11		
Top management	11	2.60	0.76		0.31	0.49*	0.39	
Entrepreneur	22	2.23	0.66		0.21	0.02	0.11	0.49*
Total	110	2.32	0.67	0.602				
Resignation: Work-life balance of females								
Office support	27	2.56	0.97					
Supervisor	13	2.54	1.05		0.02			
Middle management	37	2.43	0.93		0.13	0.10		
Top management	11	2.91	1.22		0.29	0.30	0.39	
Entrepreneur	22	2.91	0.75		0.36	0.35	0.51**	0.00
Total	110	2.62	0.96	0.329				

Table 4-12: Correlation between management level and the CPS factors (continued ...)

Management level	N	Mean	Standard deviation	P-value	Effect sizes (Cohen's d)			
					Office support	Super-visor	Middle manager	Top manager
Resilience: Organisational support towards career growth								
Office support	27	2.47	0.86					
Supervisor	13	2.80	0.88		0.38			
Middle management	37	2.98	0.66		0.59**	0.20		
Top management	11	3.02	0.37		0.64**	0.25	0.06	
Entrepreneur	22	3.12	0.76		0.76**	0.36	0.19	0.13
Total	110	2.86	0.77	0.024				
Resilience: Effect of external support on female success								
Office support	27	3.30	0.62					
Supervisor	13	3.54	0.48		0.39			
Middle management	37	3.47	0.59		0.28	0.11		
Top management	11	3.64	0.39		0.54**	0.21	0.28	
Entrepreneur	22	3.59	0.55		0.47*	0.10	0.20	0.08
Total	110	3.48	0.56	0.323				
Resilience: Results of management practices by females								
Office support	27	3.04	0.64					
Supervisor	13	3.00	0.53		0.06			
Middle management	37	3.22	0.58		0.28	0.37		
Top management	11	3.21	0.60		0.27	0.35	0.01	
Entrepreneur	22	3.26	0.76		0.29	0.34	0.05	0.06
Total	110	3.15	0.63	0.604				

Table 4-12: Correlation between management level and the CPS factors (continued ...)

Management level	N	Mean	Standard deviation	P-value	Effect sizes (Cohen's d)			
					Office support	Super-visor	Middle manager	Top manager
Resilience: Contribution of nurturing skills on success								
Office support	27	2.93	0.62					
Supervisor	13	2.77	0.93		0.17			
Middle management	37	3.16	0.87		0.27	0.42		
Top management	11	3.55	0.69		0.90***	0.84***	0.44*	
Entrepreneur	22	3.55	0.60		1.01***	0.84***	0.44*	0.00
Total	110	3.17	0.79	0.007				
Acceptance: Motivation towards work-life balance								
Office support	27	3.22	0.51					
Supervisor	13	3.08	0.95		0.15			
Middle management	37	2.86	0.68		0.52**	0.22		
Top management	11	3.06	0.74		0.22	0.02	0.26	
Entrepreneur	22	2.91	0.86		0.37	0.18	0.05	0.18
Total	110	3.01	0.73	0.363				
Acceptance: Motivation towards career growth								
Office support	27	3.04	0.84					
Supervisor	13	3.23	0.90		0.21			
Middle management	37	3.31	0.79		0.32	0.09		
Top management	11	3.14	0.81		0.12	0.10	0.22	
Entrepreneur	22	3.32	0.76		0.33	0.10	0.01	0.22
Total	110	3.22	0.81	0.689				
*d ≤ 0.2 small effect with no practically significant difference **d 0.5 ≤ 0.8 medium effect tends towards a practically significant difference ***d ≥ 0.8 large effect with practically significant difference								

From Table 4-12, with denial (opportunities for promotion and growth) at p=0.793, office support (M=2.86) has less denial than top management (M=3.25) at d=0.48 about growth opportunities.

Therefore, it is evident that the higher ranked females who are within the management of the business, tend towards a higher level of denial concerning opportunities for promotion of growth than those females who are in office support positions.

At denial (inequalities in promotion and growth) where $p=0.724$, supervisors ($M=1.82$) have less denial than top management ($M=2.12$) with $d=0.50$ about inequalities in growth. Therefore, females in top management positions tend to have higher denial concerning their opportunities and inequalities for promotion and growth, than females in supervisory positions.

At resignation (internal factors that impact management actions) with $p=0.602$, where top management ($M=2.60$) recorded higher resignation than supervisors ($M=2.22$) at $d=0.49$; and higher than entrepreneurs ($M=2.23$) at $d=0.49$. Consequently, females in top management tend to accept internal factors that impact management actions easier than females who are supervisors and entrepreneurs, because they realise that there might not be any other outcome.

Resignation (work-life balance) in middle management ($M=2.43$) recorded lower resignation than entrepreneurs ($M=2.91$) at $d=0.51$ and $p=0.329$. Therefore, female entrepreneurs tend to accept their work-life balance easier than middle management females, as they are used to having more responsibilities and are forced to cope with their situation.

At resilience (organisational support towards career growth) with $p=0.024$, office support ($M=2.47$) recorded the lowest resilience compared to three levels, namely with middle management ($M=2.98$) at $d=0.59$, with top management ($M=3.02$) at $d=0.64$, and with entrepreneurs ($M=3.12$) at $d=0.76$. Consequently, the higher females are in management levels, the more resilient they are in terms of the organisational support towards career growth.

Likewise, in the case of resilience (effect of external support on success) with $p=0.323$, office support ($M=3.30$) shows lower resilience than top management ($M=3.64$) at $d=0.54$, and also lower than entrepreneurs ($M=3.59$) at $d=0.47$. Therefore, females in top management positions, as well as female entrepreneurs tend to be more resilient toward the effect of external support on their success, compared to females in office support positions.

Resilience (contribution of nurturing skills on success) resulted in $p=0.007$; top management ($M=3.55$) is more resilient than middle management ($M=3.16$) at $d=0.44$, and as supervisors ($M=2.77$) at $d=0.84$, and as office support ($M=2.93$) at $d=0.90$, while entrepreneurs showed almost the exact results with the same three groups as top management. Entrepreneurs ($M=3.55$) are more resilient than middle management ($M=3.16$) at $d=0.44$, and as supervisors ($M=2.77$) at $d=0.84$, and as office support ($M=2.93$) at $d=1.01$. Consequently, females in top management

levels and entrepreneurs showed practically significant differences towards their counterpart, they are more resilient due to the contribution of nurturing skills on their success.

Acceptance (motivation towards work-life balance) at $p=0.363$, recorded office support ($M=3.22$) with higher acceptance than middle management ($M=2.86$) at $d=0.52$, of their work-life balance, and therefore it tends to be easier for females in office support jobs to have a work-life balance than females in middle management.

From the discussion it is clear that there is a relationship between the employment position and the CPS factors. Therefore, the H_03 hypothesis is rejected and the H_a3 hypotheses is accepted indicating that a positive relationship exists between the employment level and the CPS factors.

The above discussion is summarised in Figure 4-8; it illustrates the correlations between the CPS factors with marital status, qualification, and management level.

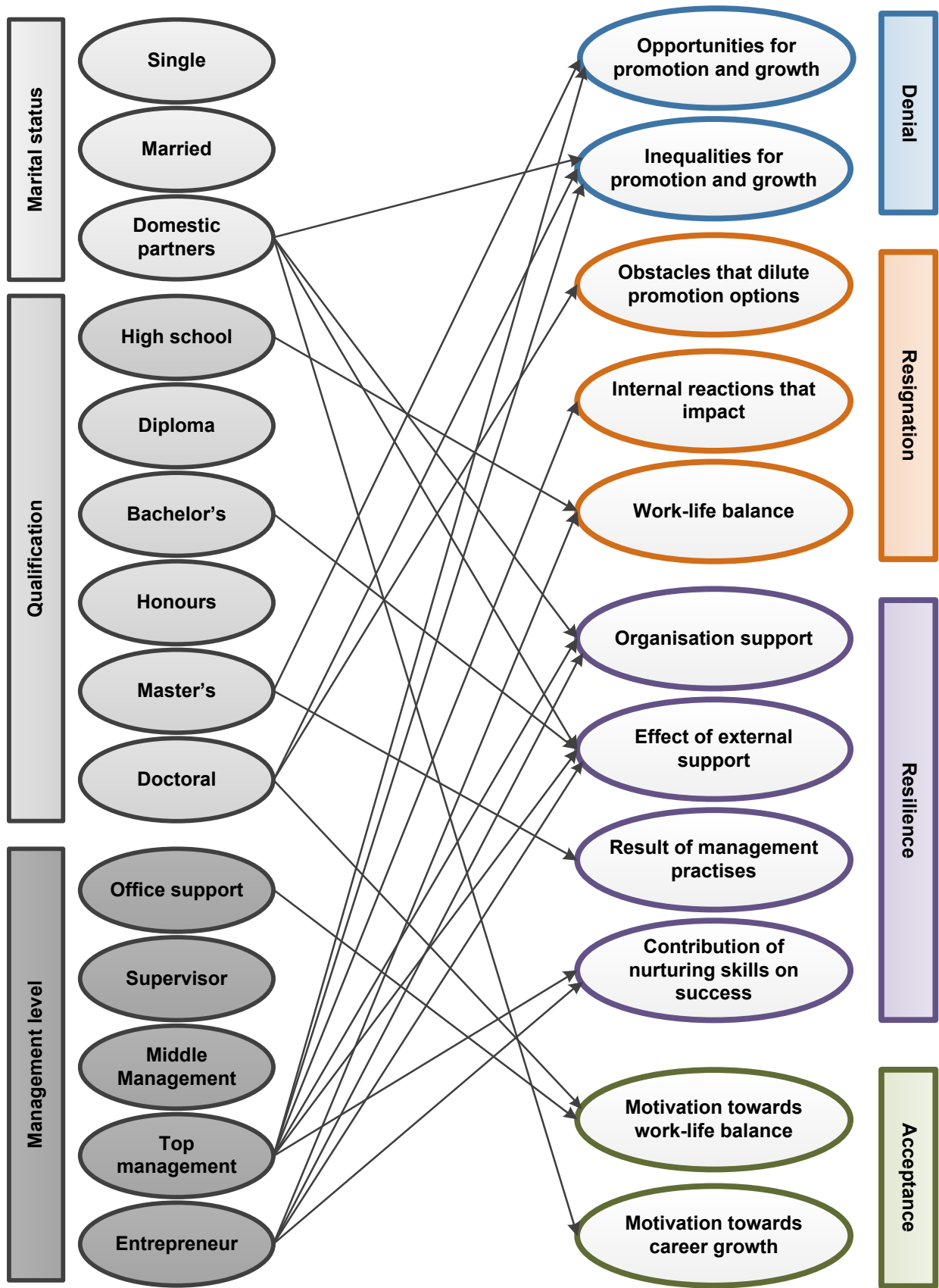


Figure 4-8: Model of the correlations influences on the CPS factors

The concluded results from the correlations between the CPS factors with marital status, qualification, and management level, as illustrated in Figure 4-8, affirm that females in higher management levels and/or with higher qualifications displayed: (i) less denial towards career growth opportunities and inequalities, (ii) less resignation towards career growth by balancing their work-life easier, and (iii) more resilience toward pursuing career growth. Furthermore, the results confirm that females in domestic partnerships and/or with higher qualifications pursue career growth and balance their work-life easier, they are more accepting of the obstacles and are not deterred by them. Therefore, businesses should focus on improving females' qualifications and minimising the obstacles that leave them unmotivated to pursue career growth; their internal policies should reflect incentives and training to attain higher qualifications.

4.4.4 Correlation between demographic items and the CPS factors

The researcher wanted to establish in this section the correlation that the demographic items had with the CPS factors. The results, displayed in Table 4-13, show the correlation coefficient between the demographic items (age at last birthday, highest qualification, years at current employer, years in current position, and years' work experience) and the CPS factors (denial, resilience, resignation and acceptance) through the Spearman rank-order correlation to indicate the evidence of a relationship (Bordens & Abbott, 2018:425).

Table 4-13: Correlation between demographic items and the CPS factors

N=110	Age	Highest qualification	Current employer	Current position	Experience
Denial: Opportunities for promotion and growth					
Correlation coefficient	0.080	0.020	0.215*	0.121	0.089
Sig. (2-tailed)	0.41	0.84	0.024	0.208	0.356
Denial: Inequalities in promotion and growth					
Correlation coefficient	-0.06	-0.02	0.051	-0.070	0.019
Sig. (2-tailed)	0.55	0.84	0.597	0.465	0.845
Resignation: Obstacles that dilute promotion options					
Correlation coefficient	0.03	-0.03	0.165	0.043	0.042
Sig. (2-tailed)	0.73	0.745	0.085	0.656	0.663
Resignation: Internal reactions that impact management actions					
Correlation coefficient	-0.07	-0.03	-0.173	-0.025	-0.032
Sig. (2-tailed)	0.47	0.78	0.071	0.795	0.742

Table 4-13: Correlation between demographic items and the CPS factors (continued ...)

N=110	Age	Highest qualification	Current employer	Current position	Experience
Resignation: Work-life balance of females					
Correlation coefficient	-0.05	-0.03	0.123	0.110	-0.019
Sig. (2-tailed)	0.60	0.77	0.201	0.253	0.842
Resilience: Organisational support towards career growth					
Correlation coefficient	0.09	-0.04	0.107	0.083	0.128
Sig. (2-tailed)	0.34	0.67	0.265	0.388	0.184
Resilience: Effect of external support on female success					
Correlation coefficient	-0.03	-0.06	-0.033	-0.103	0.031
Sig. (2-tailed)	0.76	0.53	0.731	0.284	0.750
Resilience: Results of management practices by females					
Correlation coefficient	0.238*	0.09	0.247**	0.122	0.255**
Sig. (2-tailed)	0.01	0.38	0.009	0.204	0.007
Resilience: Contribution of nurturing skills on success					
Correlation coefficient	0.12	0.00	0.124	0.058	0.156
Sig. (2-tailed)	0.21	0.98	0.197	0.548	0.104
Acceptance: Motivation towards work-life balance					
Correlation coefficient	-0.04	0.205*	0.121	0.069	-0.023
Sig. (2-tailed)	0.68	0.03	0.208	0.472	0.811
Acceptance: Motivation towards career growth					
Correlation coefficient	0.06	0.04	0.101	0.130	0.051
Sig. (2-tailed)	0.57	0.69	0.294	0.175	0.596
**Correlation is significant at the 0.01 level (2-tailed)					
*Correlation is significant at the 0.05 level (2-tailed)					

From Table 4-13, it is shown that denial (opportunities for promotion and growth) increases in relation to the number of years worked at current employer (0.215), while resilience (results of management practices by females) increases by age (0.238), by the years working at the current

employer (0.247) as well as by years' working experience (0.255). However, females' acceptance (motivation towards work-life balance) increases according to their qualification level (0.205).

4.4.5 Correlation between the CPS factors

In this section, the researcher's aim was to establish the correlation between the CPS factors. The results, displayed in Table 4-14, show the correlation coefficient between the factors (denial, resilience, resignation and acceptance) through the Spearman rank-order correlation to indicate the evidence of a relationship (Bordens & Abbott, 2018:425).

Table 4-14: Correlation between the CPS factors

Factor (N=110)		D1	D2	R1	R2	R3	Re1	Re2	Re3	Re4	A1	A2
D1	Correlation coefficient	1.000	0.474**	0.804**	-0.394**	0.213*	0.681**	0.111	0.525**	0.115	0.063	0.366**
	Sig. (2-tailed)		0.000	0.000	0.000	0.025	0.000	0.247	0.000	0.232	0.511	0.000
D2	Correlation coefficient	0.474**	1.000	0.498**	-0.111	0.058	0.278**	-0.035	0.193*	-0.002	-0.160	0.015
	Sig. (2-tailed)	0.000		0.000	0.250	0.544	0.003	0.715	0.044	0.983	0.094	0.875
R1	Correlation coefficient	0.804**	0.498**	1.000	-0.480**	0.164	0.631**	0.038	0.469**	0.071	0.138	0.330**
	Sig. (2-tailed)	0.000	0.000		0.000	0.086	0.000	0.693	0.000	0.458	0.151	0.000
R2	Correlation coefficient	-0.394**	-0.111	-0.480**	1.000	-0.050	-0.284**	-0.017	-0.410**	0.072	-0.362**	-0.420**
	Sig. (2-tailed)	0.000	0.250	0.000		0.607	0.003	0.858	0.000	0.455	0.000	0.000
R3	Correlation coefficient	0.213*	0.058	0.164	-0.050	1.000	0.114	-0.228*	0.053	0.190*	0.011	0.097
	Sig. (2-tailed)	0.025	0.544	0.086	0.607		0.236	0.017	0.581	0.047	0.912	0.312

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

Table 4-14: Correlation between the CPS factors (continued ...)

KEY: Denial: D1 Opportunities for promotion and growth D2 Inequalities in promotion and growth Resignation: R1 Obstacles that dilute promotion options R2 Internal reactions that impact management actions R3 Work-life balance of females					Resilience Re1 Organisational support towards career growth Re2 Effect of external support on female success Re3 Results of management practices by females Re4 Contribution of nurturing skills on success Acceptance A1 Motivation towards work-life balance A2 Motivation towards career growth							
Factor (N=110)		D1	D2	R1	R2	R3	Re1	Re2	Re3	Re4	A1	A2
Re1	Correlation coefficient	0.681**	0.278**	0.631**	-0.284**	0.114	1.000	0.290**	0.456**	0.264**	0.087	0.426**
	Sig. (2-tailed)	0.000	0.003	0.000	0.003	0.236		0.002	0.000	0.005	0.367	0.000
Re2	Correlation coefficient	0.111	-0.035	0.038	-0.017	-0.228*	0.290**	1.000	0.198*	0.149	0.026	0.233*
	Sig. (2-tailed)	0.247	0.715	0.693	0.858	0.017	0.002		0.038	0.120	0.787	0.014
Re3	Correlation coefficient	0.525**	0.193*	0.469**	-0.410**	0.053	0.456**	0.198*	1.000	0.074	0.198*	0.351**
	Sig. (2-tailed)	0.000	0.044	0.000	0.000	0.581	0.000	0.038		0.440	0.038	0.000
Re4	Correlation coefficient	0.115	-0.002	0.071	0.072	0.190*	0.264**	0.149	0.074	1.000	0.098	0.115
	Sig. (2-tailed)	0.232	0.983	0.458	0.455	0.047	0.005	0.120	0.440		0.308	0.232
A1	Correlation coefficient	0.063	-0.160	0.138	-0.362**	0.011	0.087	0.026	0.198*	0.098	1.000	0.498**
	Sig. (2-tailed)	0.511	0.094	0.151	0.000	0.912	0.367	0.787	0.038	0.308		0.000
A2	Correlation coefficient	0.366**	0.015	0.330**	-0.420**	0.097	0.426**	0.233*	0.351**	0.115	0.498**	1.000
	Sig. (2-tailed)	0.000	0.875	0.000	0.000	0.312	0.000	0.014	0.000	0.232	0.000	
**Correlation is significant at the 0.01 level (2-tailed)						*Correlation is significant at the 0.05 level (2-tailed)						

From Table 4-14 above, it is clear that many positive correlations exist between the various CPS factors as is in line with the results of Smith *et al.* (2012:74). However, this section will mainly focus on the aspects with the highest correlations and the aspects that have practical implications within the real business environment context.

From Table 4-14, the correlations between the CPS factors can be interpreted as follows:

Denial has a significant positive correlation with all the other factors (resilience, resignation and acceptance), which implies they are related and where the value of one should increase so should the other one; except for one negative correlation with resignation (internal reactions that impact management actions), which implies that as one value increases, the other value would decrease (Saunders *et al.*, 2016:545). Therefore, where denial increases, resignation with regard to internal reactions that impact management actions, would decrease, and *vice versa*.

While resignation (obstacles that dilute promotion options) correlates very high (0.804) with denial (opportunities for promotion and growth), as the resignation of obstacles increases for females to be promoted, so also does their denial of opportunities to grow increase.

Resilience (organisational support towards career growth) correlates with denial (opportunity for promotion and growth) (0.681) and also with resignation (obstacles that dilute promotion options) (0.631). Therefore, as females' resilience increases through support from the organisation, so too will their denial increase in terms of promotion and growth and also their resignation towards obstacles towards promotion.

The correlation for acceptance showed small significance with the other variables, but did show the same correlation between the acceptance factors (0.498), so that as acceptance of work-life balance increases, so also does their acceptance towards career growth increase.

The concluded results from the correlations between the CPS factors are illustrated in Figure 4-9.

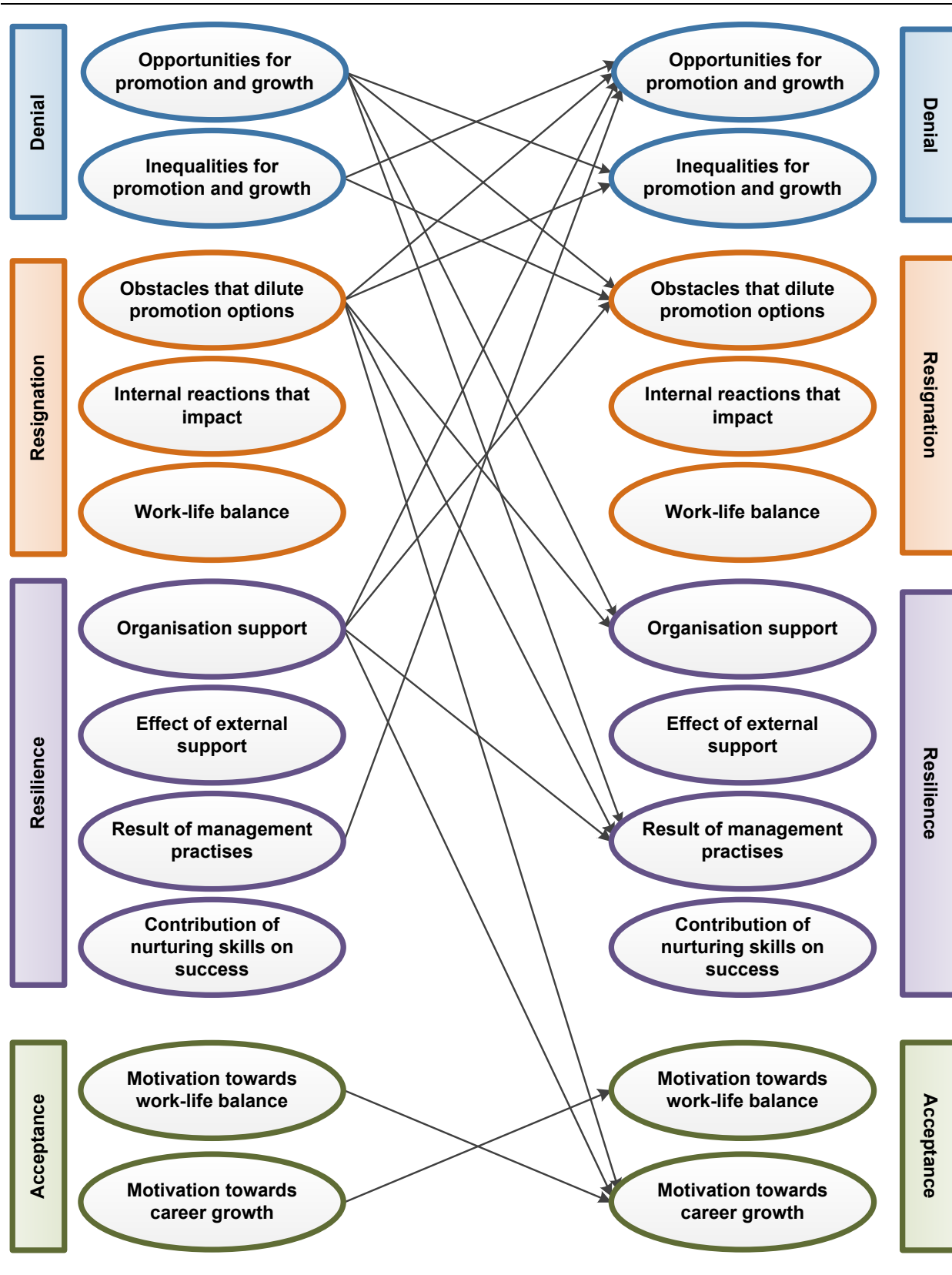


Figure 4-9: Model of correlations between the CPS factors

Figure 4-9 provides an illustration of the correlations between the CPS factors. This highlights that if females' deny their growth opportunities, they will have lower resignation towards internal efforts that impact their management abilities; they also pursue career growth easier when they are not deterred by possible obstacles. Females who receive organisational support are more motivated to pursue career growth and promotions. They are more likely to pursue career growth and promotion opportunities when they do not perceive work-life balance as an obstacle, but are accepting of it.

Therefore, businesses should actively address their internal efforts and policies to minimise the glass ceiling by offering support towards females' promotion and career growth. Internal support can be implemented through incentives, training programmes and improving qualifications that would make growth and promotion more attainable. These efforts will motivate females to pursue career growth, but likewise will also increase the business productivity and financial growth.

4.5 CONCLUSION

Chapter 4 reported the results of the distributed questionnaire to determine females' perceptions of the glass ceiling, to address the empirical objectives of this study as stipulated in Chapter 1. Section 4.2 used descriptive statistics to display the demographic profile of females through frequencies and percentages as collected through Section A of the questionnaire. Descriptive statistics and factor analysis were used in section 4.3 to determine females' perceptions of the CPS factors (denial, resignation, resilience and acceptance), as collected through Section B of the questionnaire. The descriptive statistics revealed the frequencies and percentages per construct (CPS factor) to display a summary of the collected data. While the factor analyses per construct (CPS factor) were grouped according to the extracted factors as identified for this study and displayed the factor loadings, the Cronbach alphas indicated reliability between the factors. The KMO was also reported, which indicated sampling adequacy; the Bartlett's test of sphericity indicated the correlation of variables; and eigenvalues measured the variance between factors.

Section 4.4 reported on the correlations (relationship) between the CPS factors through the p-values and effect sizes (Cohen's d). It was found that a significant relationship exists between the CPS factors and marital status, qualification level and management level. The correlations between demographic items and the CPS factors indicated that denial increases in relation to the years at current employer; resilience increases by age and the years working at current employer, as well as by the years' working experience; and acceptance increases according to qualification level. Correlations between the CPS factors revealed significant relationships, and therefore, the results of this study support previous research studies.

The next chapter will provide a summary of the previous chapters and elucidate on the recommendations for future research pertaining to females' perception of the glass ceiling.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS ON FEMALES' PERCEPTION OF THE GLASS CEILING

5.1 INTRODUCTION

The foundation of female roles in society has been paved by cultural presumptions and patriarchal stereotypes (Srivastava, 2019; Yellen, 2020), which left them judged as unequal to males and therefore forced to accept menial jobs or be content as carers (Aranha & Saldanha, 2019:496). These barriers have drowned out female input towards politics, education, health, and the economy, which leaves society to believe that 'male thinking' is the default and female qualities are weak and 'soft' (Chisholm-Burns *et al.*, 2017:312; Srivastava *et al.*, 2020:224). Throughout history, females have attempted to break gender barriers and ventured into male dominant fields, consequently leading to some progress towards gender equality and recognising female skills as valuable (Fruman, 2016; Reichelt, 2018).

Females started to adopt ideals of being successful outside their home life, wanting a career, which led them to improve their education in order to be considered for better work positions (Honeyman & Goodman, 1991:610; Fensterheim, 2017). However, the stereotypical pressures on females did not adapt by relaxing its demands; they still expect females to be the homemaker even if they do qualify for a better position. Likewise, within the business environment, there are barriers, societal and/or corporate pressures, which limit females to progress in their careers as males do (Mathur-Helm, 2006:324; Davidson & Burke, 2011:9). These barriers have come to be known as the *glass ceiling*, an unbreakable barrier that hinders female progress or promotion in the business hierarchy, regardless of their credentials (Federal Glass Ceiling Commission, 1995; Sever, 2016:577). These barriers may manifest through unequal pay or opportunities; lacking career support; and/or underrepresentation (Radhakrishnan, 2019:23; Yellen, 2020).

A biased corporate culture and male dominant policies force females to choose between family life and a career (Khwela *et al.*, 2020:380). The lack of adequate support causes stress, which forces some females to totally abandon their careers, consequently labelling females as incompetent to function in the business environment (Amaechi, 2018:154). Previous studies have found female attributes to be very useful and beneficial in the business environment, as female leadership contributes to business growth and success (Mishra & Mishra, 2016:61; Decker & Cangemi, 2018:30; Chang & Milkman, 2020:6).

However, some females feel more motivated to succeed and pursue a career in the presence of these barriers, and it drives them to work even harder (Sever, 2016:577; Bhojwani, 2020:55).

An important barrier that could serve as a driving force, is perception. Females' perception of the glass ceiling has been found by Smith *et al.* (2012:68) to be influenced by four factors: *denial*, *resignation*, *resilience* and *acceptance*, which view the positive and negative attitudes of females towards career advancement. This is a tool that can assist businesses to bridge gaps in their leadership (Smith *et al.*, 2012:77), and consequently formed part of this study's quest to establish females' perception of the glass ceiling within the South African business context. The results of this study can therefore assist in developing effective strategies for the business environment to benefit from female leadership.

This chapter provides an overview of the study (§5.2); discusses the main results of the research (§5.3); motivates the relevance of the contribution of the study (§5.4); provides recommendations for businesses to shatter the glass ceiling (§5.5); and elucidates on the limitations experienced in this research study, and opportunities identified for future research (§5.6). Lastly, the researcher gives some concluding remarks (§5.7) and reflects on her research journey.

5.2 SUMMARY OF THE CHAPTERS

The primary objective of this study was *to determine females' perception regarding the glass ceiling within the South African business environment*. This section provides an outline of the previous four chapters that contributed to this study's results, as set out in section 5.3 and by its recommendations in section 5.5.

Chapter 1 introduced the study by providing a background to females' career progress in the business environment by exploring the limitations they face due to societal ideals. These limitations are expressed through the glass ceiling phenomenon, which manifests also in the corporate sector, and is clearly highlighted and defined in this section (§1.1). Through statistical indexes, it is clear that, globally and locally, females face a glass ceiling that does not consider their credentials, but leaves them unequally paid and unfairly treated to males in the same positions (§1.1). This developed to defining the research problem (§1.2) that sought to explore females' perceptions of the glass ceiling in the South African business environment through four factors: denial, resilience, resignation and acceptance. This directed the objectives of the study (§1.3), which resulted in one primary objective, four theoretical objectives, and three empirical objectives. A broad overview was outlined for the research design and methodology (§1.4) to support the quantitative research design. The remainder of the chapter provided an overview of

the ethical considerations (§1.5); the chapter classifications of the study (§1.6); and the contributions of the study (§1.7).

Chapter 2 addressed the four theoretical objectives of this study through a literature review. The business environment was explored in section 2.2, and thoroughly dissected by defining the business environment (§2.2.1); understanding the role of business management in the business environment (§2.2.2); contextualising the role of business management in the business environment (§2.2.3); and the role of female leadership in business management (§2.2.4).

Section 2.3 provided an overview of female leadership, and section 2.4 explored the glass ceiling phenomenon in depth. This was accomplished by defining the concept (§2.4.1), which assisted in gaining perspective of its influence globally (§2.4.2) and in South Africa (§2.4.3). The application of the glass ceiling within the business environment (§2.4.4) provided insight into how gender-biased views form part of the business environment and operational culture, which are then reflected in its effects on females in the business management (§2.4.5). While some females are deterred by the biased business culture, others see it as an inspiration to work even harder and pursue a career. These different views, or perceptions, formed the basis of section 2.4.6. They were measured in section 2.4.7 by the four factors that influence females' perceptions of glass ceiling, as developed through the Career Pathways Survey (CPS). Each factor was examined and discussed in detail, which included acceptance (§2.4.7.1), resignation (§2.4.7.2), denial (§2.4.7.3), and resilience (§2.4.7.4). The literature in this section confirmed the results of other studies that acceptance and resignation are negative views that reduce female advancement, while denial and resilience are positive views that promote females' career growth. The factors and the concept are portrayed in Figure 2-2 (§2.4.7.4). Therefore, businesses should strive to enhance females' positive attitudes (resilience and denial) towards promotion; and improve the negative attitudes (acceptance and resignation) by adapting their policies and by providing support to advance their careers.

Chapter 3 explained the research design and methodology applied in this study. A descriptive research design was applied using a questionnaire research approach (§3.2). The sampling strategy in section 3.3 established the target population, which consisted of females working in the South African business environment who have access to growth opportunities in their organisation (§3.3.1). The sample frame of this study consisted of females within the South African business environment (§3.3.2). This study applied a non-probability snowball sampling method to gather data through an online questionnaire that was distributed on social media sites (WhatsApp, LinkedIn, Facebook) (§3.3.3). A sample size of 110 was used to gather data (§3.3.4). This study used a self-administered online questionnaire to gather data from the target population

(§3.4). Section 3.4 highlights the necessary considerations for the design (§3.4.1), compilation (§3.4.2) and administration of a questionnaire (§3.4.4), which were carefully applied by this study. A validated scale (CPS) was used for this study and consequently the questionnaire did not require rigorous pre-testing (§3.4.3). Section 3.5 reviewed the preliminary data analysis, followed by Section 3.6, which described in detail the statistical analysis that was applied in this study.

In reference to the statistical analysis and the data interpretation, the empirical results of this study are presented in Chapter 4 in accordance with the empirical objectives formulated in Chapter 1. This will be elucidated on in the next section.

5.3 MAIN RESULTS OF THE STUDY

In accordance with the empirical objectives as formulated in Chapter 1 (§1.3.3), this section gives a summary of the main results of this study, as explained in Chapter 4 (§4.2, 4.3 and §4.4). The empirical objectives of this study were:

- Determine a demographic profile of females working in the business environment of South Africa.
- Determine the perceptions of females towards the glass ceiling in their current work or management level in the business environment of South Africa, with specific reference to denial, resignation, resilience and acceptance as factors that influence females' perceptions.
- Determine the relationship between the factors that influence females' perception of the glass ceiling within the South African business environment.

The first empirical objective was to determine a demographic profile of females working in the business environment of South Africa. This was accomplished by displaying the frequencies and percentages of each response (§4.2). Results showed the majority age group of respondents were between 30 and 39 years old, and they consisted mainly of females who were married with more than one child. The respondents' top three options chosen regarding their qualification level revealed an almost even distribution between having: a bachelor's degree, honours degree or master's degree. The majority of respondents are in middle management positions. The majority of respondents indicated the number of years working at their current employer between four to 10 years, and the number of years in their current position recorded almost an even distribution either between one and three years, or between four and 10 years. The total years working were almost evenly distributed between the two highest options provided: 11 to 15 years, or more than 20 years working experience.

The second empirical objective was addressed in section 4.3: to determine South African females' perception towards the glass ceiling within their current employment level, which was measured through the CPS factors identified (denial, resignation, resilience and acceptance). Scaled items were displayed according to each factor by: the descriptive statistics (§4.3.1.1-4.3.4.1), which revealed the frequencies and percentages of each item's response; and the factor analysis (§4.3.1.2-4.3.4.2), which grouped the items according to the factor loadings of the extracted factors identified. The grouping for denial yielded two factors, namely opportunities for promotion and growth, and inequalities in promotion and growth (§4.3.1.2). Resignation was grouped into three factors, which were labelled as obstacles that dilute promotion options, internal reactions that impact management actions, and work-life balance of females (§4.3.2.2). Furthermore, resilience was grouped into four factors, namely organisational support towards career growth, effect of external support on female success, results of management practices by females, and contribution of nurturing skills on success (§4.3.3.2). Lastly, acceptance was grouped into two factors, labelled motivation towards work-life balance and motivation towards career growth (§4.3.4.2).

Reliability between the factors was confirmed by means of the Cronbach alphas; sampling adequacy, which was reported through the KMO; correlation of variables, which was indicated by the Bartlett's test of sphericity; and eigenvalues, which reported a variance between factors. Therefore, the statistics confirmed the CPS factors' presence in confirmation with previous research studies and the literature reviewed.

In confirmation with previous research studies, this study found the presence of denial to be an optimistic view that females can grow their career in the midst of the glass ceiling (Smith *et al.*, 2012:68; Balasubramanian & Lathabhavan, 2017:1131; Sing & Malhotra, 2017:866; Bayati & Alavi, 2018:271; Askarian *et al.*, 2020:41; Bush, 2020:56).

For resignation, the results of this study confirmed the results of previous research studies (Smith *et al.*, 2012:72; Balasubramanian & Lathabhavan, 2017:1132; Sing & Malhotra, 2017:866; Bayati & Alavi, 2018:271; Askarian *et al.*, 2020:47; Bush, 2020:56), which stated that although factors contributing to resignation might be present, females still pursue opportunities that enable them to advance in their careers.

In the case of resilience (§4.3.3.2), the results of this study concurred with results from previous research undertaken by Smith *et al.* (2012:72), Balasubramanian and Lathabhavan (2017:72), Sing and Malhotra (2017:866), Bayati and Alavi (2018:271), Askarian *et al.* (2020:47) and Bush

(2020:56) that although females work harder to overcome the glass ceiling, they feel they are able to move forward in their careers in spite of the glass ceiling.

Lastly, measuring acceptance confirmed the results of previous research studies (Smith *et al.*, 2012:72; Balasubramanian & Lathabhavan, 2017:1132; Sing & Malhotra, 2017:866; Bayati & Alavi, 2018:271; Askarian *et al.*, 2020:47; Bush, 2020:56) that females accept the glass ceiling in some instances and might rather pursue other goals than that of career advancement.

Novel to this study, the constructs (acceptance, denial, resilience and resignation) divided into further factors as evident from the factor analysis. This resulted in an improved and more accurate outcome of females' perception of the glass ceiling in the South African business environment. Furthermore, the amendments and the refinement to the original questionnaire resulted in the standardisation and validation of the amended questionnaire through the various statistical analyses conducted.

The third empirical objective was addressed in section 4.4, to verify the correlation between the CPS factors that influence females' perception, measured through Spearman's rank-order correlation analysis. This was portrayed through the p-values per factor. However, a seemingly small significance with regard to the p-value, motivated the use of the effect sizes to display the difference between the groups through Cohen's d-value (§4.4.1-§4.4.5). The results indicated correlation between marital status and the CPS factors (§4.4.1), which is a novel finding of this study. Where the domestic partnerships indicated dominantly higher effect sizes with the other groups, this suggests that denial about inequality toward career growth is lower for females in domestic partnerships, and they accept inequality easier but still seek promotion and growth. Domestic partners feel more resilient in terms of organisation support to grow their careers and with external support, and they also feel more acceptance with regard to motivation of career growth.

The results indicated a positive relationship between academic qualifications and the CPS factors (§4.4.2), which revealed a novel finding of this study. The significance revealed that the higher qualification levels females have, the lower their denial is toward growth and promotion opportunities or inequalities, and therefore they deny the inequalities less than females who are not as qualified. Females with doctoral degrees revealed less resignation towards obstacles of promotion. Ultimately, it was found that females with higher qualifications have a lower resignation than others and experience fewer obstacles towards promotion. These females with doctoral degrees can also confront and shatter the glass ceiling easier, while females with lower

qualifications have a high resignation and therefore accept the status quo of the glass ceiling as part of their life.

Females with bachelor's degrees indicated resilience towards external support on their success; consequently, they rely less on external support to be successful; and higher qualified females have higher resilience due to partaking in management practices and would likely shatter the glass ceiling easier. Females with a higher qualification level also indicated more acceptance with having to balance their work and family life responsibilities.

The results indicated a relationship between the management level and the CPS factors (§4.4.3). Females in higher management levels demonstrate more denial of opportunities and inequalities for promotion and growth. Therefore, they are more likely to be optimistic that it is possible to get promoted and grow in their careers. Females in top management show higher resignation of internal factors that impact their actions compared to the perceptions of supervisors and entrepreneurs. Therefore, they may accept the factors easier because they acknowledge them and are aware of the fact that there is not an alternative option if they want to achieve career success. Females in middle management positions indicated less resignation towards their work-life balance than female entrepreneurs. Therefore, female entrepreneurs accept the difficulty in balancing their work and life responsibilities easier due to having more responsibilities, which force them to handle their given situation and not be deterred to pursue career growth. The females in higher management positions indicated more resilience towards organisational support for growth and towards the effect of external support on their success. Therefore, it is accepted that females in higher management positions do not depend on organisational or external support to succeed in their careers.

Females in top management positions and female entrepreneurs indicated more resilience with regard to the effect that external support has on their success; they also shared higher resilience than the other groups about the contribution of nurturing skills to their success. Therefore, they are of meaning that the nurturing skills that they demonstrate increase their career success. Furthermore, females in office support positions have a higher acceptance of their work-life balance than females in middle management positions, perhaps due to the number of responsibilities they have and because they do not question the status quo.

A positive relationship between the demographic items and the CPS factors was found (§4.4.4), where females' perception of opportunities for promotion and growth (denial) increased in relation to the number of years working at their current employer. Furthermore, females' perception with regard to resilience increased by age, years working at their current employer, and by years' work

experience. Additionally, females' acceptance of motivation towards work-life balance increased in relation to their qualification level.

The results further revealed multiple positive correlations between the CPS factors as confirmed by Smith *et al.* (2012:72) (§4.4.5). However, several correlations also exist between the grouped factors of the CPS scale, which provide an in-depth look at the CPS factors. This implies a novel contribution of the study.

Denial correlated with the other factors (resilience, resignation and acceptance), but showed a negative correlation with resignation of internal reactions that impact management actions. This implies that if denial increases, then the resignation to internal reactions that impact management will decrease, and *vice versa*. While resignation of obstacles that dilute promotion options increases, so will females' denial of opportunities to grow increase. Where females' resilience through support from the organisation increases, their denial in terms of promotion and growth increases along with their resignation towards obstacles of promotion. Acceptance showed small significance with the other factors, but showed the same correlation between its factors, where females' acceptance of work-life balance increases, so also does their acceptance of career growth.

The next section will explore what contribution these results make to the field of study.

5.4 CONTRIBUTION OF THE STUDY

The business environment is continuously expanding, evolving and adapting to technology and societal progress. Likewise, the glass ceiling phenomenon has remained a relevant topic within the global business environment, not easily deterred by the type of industry. Females have faced biased standards that have measured and compared them to males, which left them unfairly judged as less skilled and less abled than males. These skewed standards have persisted throughout history and entered the business environment, where females' pursuit of a career and top management positions is hindered by a glass ceiling – an invisible barrier that leaves females unequally paid, unequally treated and unrepresented in the business environment. While this study has proven the value of females' skills in the business environment, it can simply not be dismissed any longer as it affects the growth of the business and the economy.

Previous studies and literature reveal insight into females' perceptions of the glass ceiling, although not many studies have been conducted within the South African context, and therefore this study contributes to establish new insight about this phenomenon within the South African context. While the statistical analysis of this study revealed a further grouping of the CPS factors

according to their factor loadings, the results reveal a unique understanding of the South African context that gives a deeper scope to address and ultimately shatter the glass ceiling. This is a novel contribution and an improvement of the original scale and can therefore be considered a unique and important contribution to the research field of business management.

Business strategies should consequently focus on improving females' views on the existence of the glass ceiling in terms of their growth and promotion. *Resignation* has a strong focus on promotion options and its importance to females. Businesses should strive to have fair and equal opportunities for females and enforce practices that improve their road to promotion. *Resilience*, in terms of organisational support towards career growth, was shown to be critical for females. This indicates that businesses should adopt more policies and structured programmes to develop females' business knowledge and acumen and their motivation towards career growth. With *Acceptance*, motivation towards career growth was found to be the most important attribute for females to enhance in their careers. Therefore, businesses should motivate and inspire females in order for them to strive for growth in their careers.

Strategies towards excelling females in the business environment will lead to greater business adherence of the gender gap index; and the achievement of the social transformation programme and economic empowerment of females to break the glass ceiling.

The second contribution of this study will be the improved standardised and validated questionnaire (§4.3.1.2) that can be used in future studies on females' perception of the glass ceiling.

The third contribution of this study is the grouping of the constructs into factors that provide a more accurate measure of females' perception of the glass ceiling. This can be implemented in the business environment to identify what females' perceptions are and how they can be improved in order to break the glass ceiling.

The fourth contribution would be the correlation of the CPS factors with marital status, qualification levels and management levels, which give a deeper insight into the factors that contribute to females' perception of the glass ceiling. This can be used to determine females' perception, and also to identify the role their marital status, qualification and employment level play in their ability to break the glass ceiling. This information can benefit the business environment to understand what qualities to address and/or reduce towards female equality.

5.5 RECOMMENDATIONS

This section outlines the recommendations in accordance with the results of this study with regard to females' perception of the glass ceiling in the South African business environment.

Table 5-1 provides a summary of the main recommendations per factor, followed by a detailed description in Sections 5.5.1 to 5.5.4.

Table 5-1: Summary of the recommendations per factor to shatter the glass ceiling

Construct	Factor	Recommendation
Denial	Opportunities for promotion and growth	<ul style="list-style-type: none"> • Improve organisation's policies to encourage and promote female education. • Establish better norms at school level to encourage education of females. • Provide feedback and guidelines after unsuccessful promotion or applications process.
	Inequalities for promotion and growth	<ul style="list-style-type: none"> • Adherence and compliance with international and national policies. • Blind screening of applicants for promotion or positions.
Resignation	Obstacles that dilute promotion options	<ul style="list-style-type: none"> • Improve qualifications through bursaries in specific fields of promotion in the business.
	Internal reactions that impact management actions	<ul style="list-style-type: none"> • Internal rewards for females who improve their qualification. • Adherence to government plans of equality by adapting policies. • Zero-tolerance policies of harassment and discrimination.
	Work-life balance of females	<ul style="list-style-type: none"> • Training programmes to improve inequality.

Table 5-1: Summary of the recommendations per factor to shatter the glass ceiling (continued ...)

Construct	Factor	Recommendation
Resilience	Organisational support towards career growth	<ul style="list-style-type: none"> • Adapt internal policies to provide support for female career growth. • Mentoring of lower-level females.
	Effect of external support on females success	<ul style="list-style-type: none"> • Provide incentives to encourage females' loyalty to business. • Bonus, salary and leave incentive structure according to longer service record.
	Results of management practices by females	<ul style="list-style-type: none"> • Internal support through policies that minimise barriers. • Updated work profiles and promotion options.
	Contribution of nurturing skills on success	<ul style="list-style-type: none"> • Internal support through policies that promote female management.
Acceptance	Motivation towards work-life balance	<ul style="list-style-type: none"> • Internal policies to support career growth.
	Motivation towards career growth	<ul style="list-style-type: none"> • Incentives to attain childcare services provided by the business. • Flexitime working hours applicable to all employees.

From the summary provided in Table 5-1, the following recommendations are made, which businesses can implement towards management of denial, resignation, resilience and acceptance to shatter the glass ceiling.

5.5.1 Recommendations regarding denial to shatter the glass ceiling

It is evident from the literature and other studies that societal views are the origin of gender inequality (Amaechi, 2018:152). Likewise, also confirmed from the results of this study regarding marital status, it revealed a 'freer' thinking and view by the females who were in domestic partnerships; the results found them displaying less denial, more resilience, and more acceptance towards career growth. It is therefore not the conclusion that 'marriage' is the problem, but rather the views imposed through society on marital status. While these views are imposed and expressed within the marital relationship, it is evident that those females would experience the glass ceiling in the business environment with a negative attitude rather than as an opportunity for growth. Studies found that diversity in the business environment expands the demographic,

and provides a variation of ideas and opinions that represent the business (Arfken *et al.*, 2004:184; Itty *et al.*, 2019:15).

This study discovered that females in higher management levels and/or with higher qualifications displayed less denial about their opportunities and inequalities to grow their careers (Figure 4-8), which can therefore be concluded that the business environment should focus on improving females' qualifications in an attempt to shatter the glass ceiling. It is a valuable assumption that the glass ceiling should be addressed earlier in a female's process towards career advancement and should be dealt with in society as a whole to demolish the demeaning views imposed on female skills and questioning their contribution to society. The recommendation would be to start at school level to establish better education and equipping of children to identify and value the differences between males and females. Businesses can implement and improve their policies to adapt and adhere to international and national policies that strive to improve views on the glass ceiling.

This confirms the aim of countless organisational programmes and efforts to eradicate gender inequality by amending policies and education to stimulate better beliefs and growth opportunities for females (García-Holgado *et al.*, 2020:1824-1825; UN Women, 2020:2; OECD, 2020:11; World Economic Forum, 2020:8; Department of Women, 2015; BWASA, 2017).

Another approach to eliminate the denial of the glass ceiling within the business environment is to apply blind screening when promotions or new appointments are reviewed. This allows the reviewer to review applicants solely on their skills and experience; the applicant's name, gender or race is not considered during the review process. This may instil confidence in females that they are reviewed based on their credentials. Aiding this process would be thorough feedback after evaluations to give guidance for future applications if females were not successful.

5.5.2 Recommendations regarding resignation to shatter the glass ceiling

Studies have found that females value higher qualifications and recognise its worth to gain promotion in the business environment (Chisholm-Burns *et al.*, 2017:313). As also confirmed with the results of this study, females in the South African business environment with higher qualifications experience lower denial and resignation of the glass ceiling, but also more acceptance towards work-life balance. This study found that females in higher employment levels and/or with higher qualifications cope better with their responsibilities to have a work-life balance and the factors that influence their career (Figure 4-8). Therefore, businesses should invest towards female education and reward them accordingly for pursuing and attaining higher qualifications in an attempt to shatter the glass ceiling by minimising their resignation.

This can be done by offering bursaries to females to further their academic qualifications; it can be specific bursaries in an identified area or field of interest that the business has identified as important or that would ensure a promotion. The BWASA offers training to facilitate gender transformation and growth, which is a useful tool that can be used (BWASA, 2017), also in conjunction with the government's attempts to improve females' equality through the Department of Women, businesses should incorporate these policy views into their own corporate policies to eliminate the glass ceiling factors (Department of Women, 2015). Females who are better qualified will likely adopt more positive views towards promotion and pursue it. The business environment will benefit by improving its standards as females expand their knowledge, and the business output is improved due to females' positive motivation towards achieving success in their career.

Another way to increase loyalty within females towards a business is to have a zero-tolerance policy towards harassment or discrimination within the working environment, which will be achieved by amending internal policies that strictly adhere to the laws of the country. This zero-tolerance view would increase females' trust in the business and will lead to improvement of their productivity. Studies have found that if females do feel valued, looked after and supported by their employer, it will reduce their pressures and stress that will affect business growth and allow longer leadership terms (Glass & Cook, 2015:11; Esser *et al.*, 2018:138). Females face barriers that put them in a disadvantage to reach their potential, but equality in the business will eliminate the barriers and enable growth for females and the business (Chisholm-Burns *et al.*, 2017:312).

5.5.3 Recommendations regarding resilience to shatter the glass ceiling

This study found that the longer females' employment term was at their current employment, the less they experienced denial and the more resilient they were towards the glass ceiling. Results of this study indicate that females who were more resilient were found within the higher management levels and/or with higher qualifications (Figure 4-8), indicating that, as females climb the corporate ladder, they are less inclined to be deterred (resilient) by the glass ceiling.

The business environment should explore to motivate females' loyalty to their business in order to serve them longer. Longer continuous service will benefit the business as females' attained knowledge and skills stay within that business. There should be incentives for females to entice longer service, such as bonuses after extended periods of time (for example, increments of 10 years) and/or company benefits, such as salary adjustments and/or leave benefits to rewards long service records. These incentives could motivate females to increase their qualifications in order to ensure loyalty and longer service with a business.

Therefore, internal policies should also be revised to ensure better support towards female career growth by limiting barriers so that females feel loyal and want to stay longer within a business.

Businesses should determine within their own context what aspects make females feel more valued, looked after and supported by their employer, in order to develop strategies and internal policies to ensure that these aspects are practically addressed within the organisation. If businesses are successful in this, it would ultimately lead to increased loyalty of their female employees, resulting in longer service.

Another recommendation is using mentorship within the business where top management mentors lower-level females, giving females exposure to what positions entail and helping them adjust their career expectation accordingly. This offers even females at top management an opportunity to 'groom' other females on how to increase their resilience to shatter the glass ceiling. This exchange of knowledge empowers females by increasing their confidence and, likewise, the mentors also have an opportunity to be in touch with lower-level employees, which provides them with insight into what areas there are for internal improvement of the business culture and where improvements are needed internally. This gives the business an advantage on the higher and lower-level positions, which leads to an increase in productivity.

The business environment should also update their work or job profiles to ensure that it is gender equal. The job specifications and promotion possibilities should be available and understood by all employees, so that it is attainable.

5.5.4 Recommendations regarding acceptance to shatter the glass ceiling

Previous studies found that the CPS factors should be used to improve females' perception towards career advancement by promoting the positive attitudes (denial and resilience) and maintaining the negative attitudes (resignation and acceptance) through training (Smith *et al.*, 2012:77; Balasubramanian & Lathabhavan, 2017:1132). Likewise, the results of this study confirm that these views should be addressed within the business to control these attitudes towards the glass ceiling, by addressing their corporate culture and conduct so that it promotes gender equality.

Results of this study conclude that females in domestic partnerships and/or who are higher qualified, have a better acceptance of the glass ceiling and therefore are easier motivated to achieve career growth and accept work-life balance (Figure 4-8). However, businesses should take special care to minimise barriers that can affect females' motivation, which can again be through training and qualification incentives internally through amended policies. This should be

in accordance with government's efforts of the NDP (National Development Plan), which aims to improve female employment and empowerment (Benjamin, 2017:2), and the business environment should adapt their policies to address equality so that the glass ceiling can be broken down through females' positive views.

Additional childcare services can also be an incentive to offer females at their place of employment within certain employment or management levels. If the industry allows it, onsite day-care centres can be implemented that even include after-school supervision for bigger children. Employers could offer or include safe transport services for children to and from school to the onsite centre. This will eliminate family concerns of females as well as 'misused time' that they could be deposited back into the business and also increase productivity.

Another recommendation is the implementation of flexitime for all employees with regard to working hours. If it is applicable to all employees, then no one is excluded, which also leads to inclusivity and increases morale for females who do not have children; they can also work towards their career goals even though they do not face the work-life balance as mothers do.

5.6 LIMITATIONS AND FUTURE RESEARCH OPPORTUNITIES

This study measured females' perception of the glass ceiling in the South African business environment. While all research may encounter limitations, this study was no exception; however, this gives rise to opportunities for further studies.

This study implemented a quantitative research design using a cross-sectional questionnaire approach. A limitation faced by this study was using the snowball sampling method to gather data with the online questionnaire. This method was chosen as it is accessible and can be directed to reach the correct sample group. Although this method is adaptable with technology and fits within a modern lifestyle, it does not ensure a high response rate of questionnaires. While the snowball sampling method does allow adequately identifying respondents from the target population and asking them to recruit others to partake (Rea & Parker, 2014:318; Leavy, 2017:80), it does not ensure a response. For this study, it was found that the snowball method was not ideal because the researcher has little to no control over the method, as it relies on the previous reached respondents to forward and distribute the questionnaire, which also leads to relying on their judgement if respondents fit the desired sample. Due to the adaptation of technology and the exposed overload to its access, the presumption is that respondents get distracted and forget to complete the questionnaire, or they think it might take long to complete. There may be myriads of reasons why this distribution method has affected the response of this study. Therefore, an

opportunity exists to use an alternative method to ensure more responses, which could enhance the results or strengthen it.

Another limitation is that this study did not distinguish between females in big corporate companies and those in smaller businesses to measure their perception of the glass ceiling. Likewise, geographical location, like big versus small or rural cities, was not specified in the data collection criteria, and this could result in different views or results regarding females' perceptions of the glass ceiling.

Based on these limitations, the opportunities for future research should consider the use of interviews as instrument to gather data within the same research question to see if it delivers the same results. This method ensures feedback and could develop more trust with a respondent to divulge personal experiences or views. For future research, it could be beneficial to determine whether females in bigger cities and in bigger corporations' perceptions differ from females in smaller cities and in smaller businesses.

5.7 REFLECTION ON THE RESEARCHER'S JOURNEY

The glass ceiling has existed long before we could define it or develop indexes to measure its divide between male and female equality. Its effects go wider than just limiting females to being homemakers and carers, but robs society, politics, economy and the business environment of females' skills and perspectives. Putting females on equal footing with their male counterparts does not diminish males, but instead offers a richer and more balanced approach, which most likely increases the value of both views. Likewise, a one-sided outlook in the business environment needs to adapt towards gender equality in order to capitalise on females' leadership contributions. The factors applied in this study can assist businesses to effectively address and minimise or even eradicate inequality in the business environment. This effect will ripple through to change females' perception of the glass ceiling and establish their place as needful and valuable in the business environment, which, in turn, contributes to the economy and social welfare of South Africa and across the globe.

The journey of this research study has been a learning curve that no one can ever fully prepare you for on what to expect and how it will turn out. I can honestly say that I did not find the 'topic' of this study, it found me. Female equality has been a recurring question throughout my life and has made its appearance in different ways and forms. I grew up with hard working parents, and their example instilled the ideal in me that through hard work I can achieve my goals. My mother has always been working and had no choice but to find a balance between her work and family responsibilities. As the youngest child, I learned from an early age to be independent and rely on

my own abilities. This has been a quality that has helped me professionally and personally to realise that anything I want to accomplish is within my grasp.

Unfortunately, I have also witnessed and experienced the evil effects of the inequalities described in this study, which society has imposed on females to bend under its will. In my experience, the traditional view that females should be lesser and content with being silenced, is the root of the imbalance, and because it is subtly enforced and communicated, it rarely appears with a marching band announcing its intention.

Therefore, the research on this topic has expanded my view to be open and accept angles other than my own experience and opinion of inequality. It has made me reflect and thankful of the low-level existence in my own career compared to others, but also disturbed at the high levels other females experience and have to tolerate on a daily basis.

The research process has been an intimidating experience at first, but I believe it has helped me to be a better researcher and more accepting of the variables that arise along the way. The saying: 'You don't know what you don't know', will be the best description of the journey and it was a constant learning experience. It has stirred a deeper need in me for knowledge on the business management subject and other topics that are relevant to the field, and definitely a need towards exploring the topic of gender equality within the business management field further. The process and journey have left a positive impression on me with a hope and expectation to keep on learning and growing in my research skills.

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ANNEXURE A

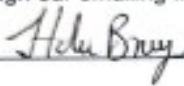
LETTER OF CONSENT



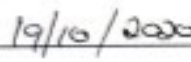
19 October 2020

TO WHOM IT MAY CONCERN
QUESTIONNAIRE

I, Hester Hendrina du Bruyn, National Leader, herewith give my permission for the study of Ms Margie Williams (student number 12297240) to be conducted in the South African Council for Business Women and will assist in the distribution of the questionnaire to our database through our emailing list from 1 to 30 November 2020.



Signature



Date

ANNEXURE B

QUESTIONNAIRE

DETERMINING FEMALE EMPLOYEES' PERCEPTION OF THE GLASS CEILING PHENOMENON IN SOUTH AFRICA'S BUSINESS ENVIRONMENT

INFORMED CONSENT

Dear respondent

You are herewith invited to take part in a master's study. The purpose of this research study is to determine females' perceptions of the glass ceiling phenomenon in the South African business environment. Ethical clearance has been obtained at the North-West University (NWU) – ethics number: NWU-00871-20-A4. Your contribution to this research study could potentially benefit future female entrepreneurs and business owners, and therefore your experiences and perceptions of glass ceiling in the business environment would be of great value.

Please take note of the following important information:

- Your participation in this research is completely voluntary, and no form of compensation will be provided.
- Confidentiality of all information enclosed in this questionnaire is guaranteed, and although certain socio-demographic questions are included in the questionnaire, no personal questions that can identify any respondent are included. The individual responses will form part of a collective profile.
- The questions asked in Section A of the questionnaire pertaining to age, marital status, and highest qualification will guide the research to determine a demographic profile of females in the South African business environment, and to determine to what extent these specific factors (age, marital status, highest qualification) might have an impact on females' perception of the glass ceiling, if any. Again, no individual responses will be reported on, but will rather form part of the collective profile.
- Your information will remain anonymous. Please do not include any personal details in your response, such as your contact information. Individual responses will not be identified, but the results will rather be presented in aggregate.
- All data obtained through this questionnaire will be published in the form of a Masters dissertation and peer-reviewed academic publications (journal articles and/or conference papers). All data obtained will be stored on a secure server at the NWU.
- The questionnaire should take approximately 15 minutes to complete.
- If at any time you feel that you want to halt participation, you are welcome to do so. Your withdrawal from participation will not be to your disadvantage in any way.
- To avoid that respondents accidentally skip a question, the online questionnaire will require you to answer all questions in a relevant section, before you can go to the next page or submit the form.
- If you are comfortable with the content and you have no objections, please click on the link to complete the questionnaire.
- By completing the declaration of participation and the questionnaire, you give consent that the information may be used for research purposes.

Thank you for your assistance – It is truly appreciated.

For any further information, feel free to contact us:

Margie Williams
12297240@nwu.ac.za

Dr Clarise Mostert
Clarise.mostert@nwu.ac.za

* Required

Declaration of participation

By accepting the statement below, I agree to partake in this study titled: Determining female employees' perception of the glass ceiling phenomenon in South Africa's business environment

I declare that:

I have read the above description of this research study and I am aware of the purpose of the study. I voluntarily agree to take part in this study and by continuing and completing this questionnaire I consent to the information being used in collective form.

1. *

- I accept the declaration
- I do not accept the declaration

Section A: THIS QUESTIONNAIRE SHOULD ONLY BE COMPLETED BY FEMALE
Demographic RESPONDENTS

information Please answer the following questions in reference to your current demographic information by selecting the appropriate option that corresponds to you.

2. Age at your last birthday: *

Mark only one oval

- 18-24 years
- 25-29 years
- 30-39 years
- 40-49 years
- 50-59 years
- 60 years and above

3. Your current marital status: *

Mark only one oval

Single, with no children

Single with 1 or more children living at home

Married, with no children

Married, with 1 or more children living at home

Domestic partnership, with no children

Domestic partnership, with 1 or more children living at home

4. Highest qualification obtained: *

Mark only one oval

Doctoral degree

Master's degree

Honours degree

Bachelor's degree

Diploma

High school

5. Please choose the option that best describes your current work position: *

Mark only one oval

Office support

Supervisory staff

Middle managerial level

Top managerial level

Entrepreneur/business owner

6. Please indicate the number of years you have been working at your current employer. *

Mark only one oval

Less than 1 year

1-3 years

4-10 years

11-15 years

16-20 years

More than 20 years

7. Please indicate the number of years you have been working in your current position. *

Mark only one oval

Less than 1 year

1-3 years

4-10 years

11-15 years

16-20 years

More than 20 years

8. Please indicate the number of years' work experience you have. *

Mark only one oval

Less than 1 year

1-3 years

4-10 years

11-15 years

16-20 years

More than 20 years

Section B:

Perception of glass ceiling

Glass ceiling can be defined as a 'thinking' and prejudice that allows unspoken presumptions to discredit female credentials and block their progress along the business hierarchy, causing a reign of gender inequality in the business environment.

In reference to your current position, please indicate your agreement with each of the following items, based on the scale:

(1) Strongly disagree; (2) Disagree; (3) Agree; (4) Strongly agree

9. It is difficult for females to start a career in a male dominant working environment. *

Mark only one oval

1 2 3 4

Strongly disagree Strongly agree

10. Females and males experience the same problems entering the workplace. (e.g.required skills, working conditions, pay structure)*

Mark only one oval

1 2 3 4

Strongly disagree Strongly agree

11. It takes longer for females to reach management positions compared to males. *

Mark only one oval

1 2 3 4

Strongly disagree Strongly agree

12. Even though females have the same qualifications and skills as their male counterparts, they are not always recognised for promotions. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

13. In my organisation, females have reached top management positions. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

14. In my organisation, females are equally recognised for promotion compared to their male counterparts. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

15. In my organisation, females are seldom given full credit for their successes compared to their male counterparts.*

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

16. In my organisation, females are treated with the same level of respect as their male counterparts. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

17. In my organisation, females who work hard and are committed, have the same career advancement opportunities as their male counterparts. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

18. In my organisation, females are treated differently compared to their male counterparts. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

19. In my organisation, female managers find it difficult to address accountability with subordinates. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

20. In my organisation, female managers are more prone to emotional reactions when dealing with crises compared to their male counterparts. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

21. In my organisation, female managers react differently to their success compared to their male counterparts. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

22. In my organisation, female managers take fewer risks in terms of corporate success and decision-making compared to their male counterparts. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

23. In my organisation, females have to compromise more to gain higher paid positions compared to their male counterparts. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

24. In my organisation, distrust prevents female employees from seeking promotions. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

25. In my organisation, females are less confident than their male counterparts. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

26. In my organisation, females demonstrate a healthy work-life balance. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

27. In my organisation, not all employees are promoted to management positions on equal basis. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

28. In my organisation, females with leadership potential avoid competing with male counterparts for management positions. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

29. In my organisation, females in management positions pave the way to promotion for other female employees. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

30. In my organisation, female employees with higher qualifications are more likely to be promoted. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

31. In my organisation, females have the opportunity to reach their full potential. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

32. In my organisation, females in management positions achieve the same level of outcomes as their male counterparts.*

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

33. Females are inspired to become successful business managers if they are exposed to other female leaders within their society.*

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

34. In my organisation, females demonstrate the ability to make important decisions during critical situations. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

35. In my organisation, females with a support structure can progress more in their career. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

36. My organisation seeks out talented female employees.*

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

37. My organisation provides support in the form of mentorship and career path development to females to ensure they advance in their careers.*

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

38. Females' nurturing skills help them to be successful leaders. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

39. In my organisation, females have the opportunity to network with internal and external stakeholders to advance in their careers. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

40. In my organisation, females demonstrate the same level of ambition as their male counterparts. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

41. In my organisation, females demonstrate the same aspiration for management positions as their male counterparts. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

42. Females would rather have a successful family life than develop a career. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

43. In my organisation, females are less concerned about promotions than their male counterparts. *

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

44. In my organisation, females are less committed to working long hours than their male counterparts.*

Mark only one oval

1 2 3 4
Strongly disagree Strongly agree

ANNEXURE C

DATA SETS

For this study, **Determining females employees' perception of the glass ceiling phenomenon in South Africa's business environment**, IBM SPSS, version 27 was used to capture and analyse the data, the data sets can be viewed at:

<https://drive.google.com/file/d/1Vn1MxtgZ1cpeZOcODqHZC3Wxr43c7rW9/view?usp=sharing>

Margie Williams

Vanderbijlpark

December 2021