

Understanding organisational barriers to women's advancement into senior leadership in the South African mining industry

28345283

A research project submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

04 March 2025

Abstract

Despite legislative initiatives to promote gender diversity, women remain grossly under-represented in the top leadership of the South African mining industry. Organizational, cultural, and policy factors that serve as barriers to women's advancement into senior roles are described in this paper. Data was collected through an exploratory qualitative study design among male senior executives, human resource professionals, and female leaders in the mining industry. Results indicated that the systemic barriers that hinder the advancement of women, include the lack of inclusion in leadership networks, unconscious bias in talent development, and inflexible workplace cultures. Such barriers are increased by cultural norms and societal expectations and lagging compliance-driven gender policies in making meaningful changes at the organizational level. The report highlights the persistence of gendered leadership stereotypes and how inadequate the industry's present efforts are. This paper proposes targeted interventions that imply structured mentoring programmes, explicit requirements for promotion, and more robust accountability to resolve these aspects in mining organizations. Understanding the barriers to leadership advancement will enable mining houses to develop more sustainable talent pipeline of female leaders within the industry.

Keywords

Women in Leadership; Leadership barriers; South African mining; Policy implementation

Plagiarism Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

The name of the student and the date should follow the declaration.

Keletso Marsh

4 March 2025

Contents

Abstract.....	2
List of Figures.....	7
List of Tables.....	7
Abbreviations and Acronyms.....	8
1. Chapter 1: Introduction to Research Problem.....	10
1.1. Introduction.....	10
1.1. Research Problem.....	10
1.2. Key areas of investigation.....	11
1.3. Theoretical Frameworks.....	11
1.4. Research Scope.....	12
1.5. Research Gap and Justification for an Exploratory Approach.....	13
1.6. Research Purpose.....	15
2. Chapter 2: Literature Review.....	18
2.1. Introduction: Background and Context.....	18
2.2. Theoretical Frameworks and Concepts.....	22
2.3. Historical Context of Women in South African Mining.....	34
2.4. Barriers to Women's Advancement in Mining.....	38
2.5. Strategies to Overcome Barriers.....	40
2.6. Conclusions and Research Questions.....	42
3. Chapter 3: Research Questions.....	44
3.1. Introduction.....	44
3.2. Research Questions.....	44
3.3. Conclusion.....	45
4. Chapter 4: Research Methodology.....	46
4.1. Introduction.....	46
4.2. Choice of research design.....	46
4.3. Proposed research methodology.....	48
4.4. Quality controls.....	56
4.5. Limitations.....	60
5. Chapter 5: Findings.....	62
5.1. Introduction.....	62
5.2. Overview of Participants in study.....	62
5.3. Coding Process and Theme Development.....	70
5.4. Themes Linked to Research Questions.....	73
5.5. Conclusion.....	91

6.	Chapter 6: Discussion of Results.....	95
6.1.	Introduction	95
6.2.	Discussions on Research Question 1.....	95
6.3.	Discussions on Research Question 2.....	101
6.4.	Discussions on Research Question 3.....	106
6.5.	Conclusion	108
7.	Chapter 7: Conclusions and Recommendations.....	113
7.1.	Introduction	113
7.2.	Overview of Research Questions and Core Findings.....	113
7.3.	Recommendations	116
7.4.	Proposed Framework.....	120
7.5.	Strengths and Limitations of the Study.....	127
7.6.	Conclusion	132
	Reference List.....	133
	Appendix A: Ethical Clearance.....	149
	Appendix B: Interview Guide.....	150
	Appendix C: Code Categorisation.....	152

List of Figures

Figure 1: Commodity representation.....	66
Figure 2: Academic background distribution.....	68
Figure 3: Years of experience Distribution.....	69
Figure 4: interview duration boxplot.....	70
Figure 5: Study Research Questions.....	74
Figure 6 : Themes linked to RQ1.....	75
Figure 7: Themes linked to RQ2.....	81
Figure 8: Themes linked to RQ3.....	87

List of Tables

Table 1: Link between RQs and IQs.....	52
Table 2: Research Participants Summary.....	64
Table 3: Key Findings per Research Question.....	92
Table 4: Analysis of Findings per Research Question.....	110
Table 5: MEKGWE Framework.....	123
Table 6: Summary of Strengths and Limitations.....	130
Table 7: Theme 1 Codes.....	152
Table 8: Theme 2 Codes.....	153
Table 9: Theme 3 Codes.....	154
Table 10: Theme 4 Codes.....	154
Table 11: Theme 5 Codes.....	154
Table 12: Theme 6 Codes.....	155
Table 13: Future Frameworks Codes.....	155

Abbreviations and Acronyms

ATLAS	ATLAS.ti (Qualitative Data Analysis Software)
BEE	Black Economic Empowerment
COVID	Coronavirus Disease
DPSA	Department of Public Service and Administration
GBV	Gender-Based Violence
GIBS	Gordon Institute of Business Science
BEE	Black Economic Empowerment
DPSA	Department of Public Service and Administration
HR	Human Resources
ILO	International Labour Organization
IQ	Interview Questions
MEKGWE	Mobilizing Equity and Knowledge for Gender Workforce Empowerment
MPRDA	Mineral and Petroleum Resources Development Act
POPIA	Protection of Personal Information Act
RCT	Role Congruity Theory
RQ	Research Question (e.g., RQ1, RQ2, RQ3)
SADC	Southern African Development Community
SHRM	Strategic Human Resource Management

1. Chapter 1: Introduction to Research Problem

1.1. Introduction

The persistent underrepresentation of women in senior leadership within the South African mining industry highlights a critical gap between policy commitments and actual organisational transformation (Sesele, Marais, & Van Rooyen, 2021). While gender transformation policies have been widely implemented across industries (World Economic Forum, 2023; Franczak & Margolis, 2022; Barkhuizen, Masakane, & Van Der Sluis, 2022), mining remains one of the most resistant sectors to structural change. Women continue to face barriers in career progression, showing that this phenomenon goes beyond regulatory frameworks, such as Employment Equity Act 55 of 1998 but is rather deeply ingrained in organizational, cultural, and societal norms (Mkhatshwa & Genc, 2022; Barkhuizen et al., 2022).

While gender transformation regulations often lead to numerical compliance rather than real inclusion, this study examines how organizational, cultural, and societal norms intersect to reinforce exclusionary practices of women in senior leadership roles in mining (Beloskar et al., 2024; Barkhuizen et al., 2022). Despite a plethora of research on organisational barriers faced by women, there is limited research on challenges encountered by women on career progression into leadership roles (Barkhuizen et al., 2022). This limitation highlights the need of this study, which employs an exploratory research design to examine the career progression barriers faced by women in mining leadership roles (Beloskar et al., 2024; Barkhuizen et al., 2022).

1.1. Research Problem

Despite progress in policies related to leadership transformation, women are still underrepresented in senior leadership across various industries and more so in historically male-dominated industries like mining. Existing studies have presented some structural, cultural, and organizational impediments to their career advancement (Franczak & Margolis, 2022; Beloskar, Haldar, & Gupta, 2024; Mkhatshwa & Genc, 2022; Mohamed, Elsaid & Ela, 2021; Kaggwa, 2020; Acker, 2006; Collinson & Hearn, 1994; Daniel, 2001). Though the glass ceiling effect is something that has been widely cited, latest studies point out other critical challenges that include lack of access to informal networks of leadership,

unconscious bias and rigid structures around talent development (Eagly & Karau, 2002; Naguib & Madeeha, 2023; Franczak & Margolis, 2022). Such barriers not only impede individual career progression but also hurt organizations by limiting diversity within the leadership team (Daniel, 2021; Eagly & Karau, 2002; Barkhuizen et al., 2022).

The mining industry is also characterized by unique physical, social, and environmental challenges that can further predispose certain persons to disadvantage. The work settings of mining have historically been designed under masculine leadership norms and cultures, with more than just physical strength required to lead successfully and with mainstreaming balance between work and home (Mahlasela, Madumo & Randa, 2023; Kansake et al., 2021; Kaggwa, 2020; Mkhathshwa & Genc, 2022; Moalusi & Jones, 2019; Lahiri-Dutt & Macintyre, 2006). These cultural benchmarks can create disincentives for a more diversified cohort of leaders to progress through the ranks (Barkhuizen et al., 2022)

1.2. Key areas of investigation

The findings of this study are structured around three interconnected themes that reveal the multi-layered barriers to women's leadership progression in mining.

- Firstly, organisational are not simply a function of skills and qualifications but are shaped by informal leadership networks and entrenched biases that prioritise male successors (Kaggwa, 2020; Mkhathshwa & Genc, 2022).
- Secondly, societal and cultural norms continue to impose double standards on women's leadership styles, reinforcing expectations of emotional labour and interpersonal roles that often exclude them from strategic decision-making spaces (Acker, 2006; Collinson & Hearn, 1994).
- Lastly, while policy frameworks such as the Mining Charter have mandated gender equity targets, the gap between policy compliance and actual workplace transformation remains stark, with many organisations failing to implement meaningful structural changes (Taparia & Lenka, 2022; Mkhathshwa & Genc, 2022).
- The strategies perceived to be effective in promoting gender inclusion are those implemented by mining companies (Mkhathshwa & Genc, 2022; Kaggwa, 2020; d Economic Forum, 2023; McKinsey & Company, 2021).

1.3. Theoretical Frameworks

To provide a critical and holistic perspective, this study integrates various theoretical frameworks to examine the root causes of gender exclusion in mining leadership. An exhaustive list of these frameworks will be discussed in detail in the following chapter, however the main frameworks discussed that are vital to this study are:

The Role Congruity Theory, which explains how gender bias against women leaders works due to the misalignment between the expectations of leadership in society and the traditional gender roles (Eagly & Karau, 2002). Women leaders are mostly subjected to more scrutiny and opposition than their male counterparts (Barkhuizen et al., 2022). This involves cases of stereotyping, exclusion from decision-making, and unconscious bias in promotion decisions (Eagly & Karau, 2002).

Institutional Theory which relates to how organisational policies, cultural norms, and industry standards play a role in determining gender leadership representation (Zucker, 1987; Dacin, Goodstein & Scott, 2002). For mining, institutional factors involve things like male-dominated leadership pipelines, workplace cultures that resist change, and insufficient mentorship opportunities for women, thus perpetuating gender disparity

Glass Ceiling Theory illustrates the metaphorical barriers that inhibit women's progression to senior leadership (Dozier, 1988). This happens even when they possess impeccable qualifications and relevant experience. The mining sector has a long history of very rigid career progression structures, informal leadership networks, and gendered perceptions of leadership to entrench these barriers (Kansake, Sakyi-Addo, & Dumakor-Dupey, 2021; Moalusi & Jones, 2018)

1.4. Research Scope

South Africa possesses a wealth of mineral resources, making it one of the most mineral-rich nations globally. The country mines a variety of minerals, including platinum group metals (PGMs), gold, coal, diamonds, iron ore, manganese, chrome, copper, nickel, uranium, vanadium, zinc, fluorspar, titanium minerals (ilmenite, rutile, zircon), lead, silver, phosphate rock, and asbestos (Cole & Broadhurst, 2023).

The study focused on the mining industry and included individuals who had worked across multiple organisations within South Africa's key mining provinces, namely Limpopo, Mpumalanga, North-West, Northern Cape, Free State, and Gauteng. These regions were strategically selected as they encompass the country's major mining operations, providing

a broad representation of the sector's challenges and leadership dynamics. The inclusion of multiple mining houses ensured a diverse range of perspectives, allowing the study to capture both organisational and regional variations in gender-related leadership barriers within the mining sector.

This study has three key groups of participants to ensure that there is in-depth exploration and understanding of the organisational barriers within mining leadership:

Women holding senior leadership positions or mid-level leadership roles with a minimum of ten years of experience in the mining industry. Their views shed light on organisational difficulties plus barriers to career progression that can be gained first-hand.

Senior male leaders in the mining industry with a minimum of ten years of experience. Their views help understand the leadership dynamics, culture of the industry, and organisational structures that impact gender inclusion.

Human Resources (HR) professionals with at least ten years of experience in recruiting for senior leadership positions in mining. Their insights are useful in acquiring information regarding patterns of recruitment, structures of talent development, and effectiveness gender transformation initiatives.

1.5. Research Gap and Justification for an Exploratory Approach

While most of the research in gender and leadership within mining focuses on women's experiences, this research adds depth by interviewing men to gauge their awareness of the barriers women face in the industry (Mahlasela, Madumo & Randa, 2023; Kansake et al., 2021; Kaggwa, 2020; Mangaroo-Pillay & Botha, 2020; Mkhathshwa & Genc, 2022; Moalusi & Jones, 2019).

Recognizing whether men acknowledge these challenges is fundamental in determining where organizational cultural and leadership structure blind spots lie that continue to perpetuate gender disparity.

The study also incorporates views from HR personnel who directly participated in recruitment and promotion decisions for senior roles within mining. Their opinions will offer valuable insight into whether gender biases, conscious or otherwise, are instrumental in influencing hiring and promotion decisions.

Unlike previous research that covered women's stories or focuses on policy compliance and numerical representation (Mahlasela, Madumo & Randa, 2023; Kansake et al., 2021; Kaggwa, 2020; Mkhathshwa & Genc, 2022; Moalusi & Jones, 2019). This study looks past just following the rules to see how big problems in organizations show up and stay there even with new policies. Having different thoughts helps this research give a better picture of the real issues with changing gender roles in mining leaders and finds possible ways for real improvement.

Some of the researchers chose to study only one mining company. This set of limitations under this dimension reduces the generalizability of the findings (Takadi, 2021; Mkhathshwa & Genc, 2022)

As in Takadi's (2021) research, which concentrated on the experiences of women holding top and senior management positions at Anglo American, one of the largest mining companies in South Africa. While this research contains useful information regarding the barriers encountered, it indicates the necessity of conducting a much wider study within a broader spectrum of firms in the South African mining sector to obtain better insight (Takadi, 2021).

The mining industry is also characterized by unique physical, social, and environmental challenges that can further predispose certain persons to disadvantage. The work settings of mining have historically been designed under masculine leadership norms and cultures, with more than just physical strength required to lead successfully and with mainstreaming balance between work and home (Mahlasela, Madumo & Randa, 2023; Kansake et al., 2021; Kaggwa, 2020; Mkhathshwa & Genc, 2022; Moalusi & Jones, 2019; Lahiri-Dutt & Macintyre, 2006). These cultural benchmarks can create disincentives for a more diversified cohort of leaders to progress through the ranks (Barkhuizen et al., 2022)

This study utilises a qualitative research approach to investigate the barriers hindering women's advancement in the mining industry. Despite a plethora of research on organisational barriers faced by women, there is limited research on challenges encountered by women on career progression into leadership roles (Barkhuizen et al., 2022), This limitation highlights the need of this study, which employs an exploratory research design to examine the career progression barriers faced by women in mining leadership roles (Beloskar et al., 2024; Barkhuizen et al., 2022).

In addition, the exploratory design becomes very instrumental for the reason that it allows the study to:

- Identify the unexplored or under-researched organisational barriers to leadership progression (Barkhuizen et al., 2022).
- Capture rich, first-hand narratives that reveal how policies and cultural norms manifest in leadership trajectories.
- Provide a more dynamic and contextual understanding of the leadership barriers obtained from the perspective of both males and females.

This chapter explains the necessity of the research by placing it within South Africa's economic and social transformation agenda. Even though gender transformation policies have been massively applied in the mining sector, their impact on the systemic barriers at the leadership level is still less explored (Daniel, 2021). Understanding the organisational barriers that women face in attaining leadership in mining works is fundamental for sustainable gender equity in this critical economic sector and for enhancing leadership diversity (Castañeda-Burciaga, Guirette-Barbosa, Ramírez-Salazar, Celaya-Padilla, & García-Estrada, 2025; Daniel, 2021; Barkhuizen et al., 2022).

1.6. Research Purpose

This study will purposefully consider the barriers that block women's promotion to senior leadership in the South African mining industry. Organisation, social, cultural and policy-related factors will be explored on how they influence the progression of leadership and cross-company insights will be derived (Mahlasela, Madumo & Randa, 2023; Kansake et al., 2021; Kaggwa, 2020; Mkhathswa & Genc, 2022; Moalusi & Jones, 2019; Lahiri-Dutt & Macintyre, 2006).

1.6.1 Significance for Business

Leadership diversity has been related with improved financial results, innovation as well as employee engagement. Firms that boast a higher level of women's representation in leadership roles are said to have better quality decision-making processes, stronger financial performance, and improved risk management (Mary, Malhotra, Goswami, Kumari, Priya, 2023; Farmanesh, Vehbi, Zargar, Sousan, Bhatti, 2020; Li, Gong,

Burmeister, Wang, Alterman, Alonso & Robinson, 2020; Razaqat, Razaqat, Razaqat & Razaqat, 2022; McKinsey & Company, 2021; World Economic Forum, 2023; Franczak & Margolis, 2022). The mining industry is therefore characterized as one of the very lagging sectors in transformation and thus urgently needs to move faster with effective leadership development programs that go beyond mere compliance-driven targets (Kaggwa, 2020). Gender-diverse workplaces also attract and retain high-performing employees, long-term sustainability, and competitiveness (Ibarra, Carter, & Silva, 2010). Research indicates that female leaders indeed serve as role models and mentors creating an inclusive organizational culture that advances talent development and succession planning (Eagly & Karau, 2002). However, the majority of mining organizations still function within masculine leadership norms. This system has continually made the access of women and other underrepresented groups to opportunities for leadership quite complicated (Lahiri-Dutt & Macintyre, 2006)

Practically, this study predisposes findings that can be used by policymakers, corporate leaders, and gender advocacy groups to formulate more effective gender transformation strategies. With knowledge of the interplay between policy, organisational culture, and career development structures, mining companies will be able to sustain and expand their feminine leadership pipeline. By identifying these barriers, women leaders seeking career progression in the mining sector can be better equipped and prepared, as more information about the challenges they may face is made available (Barkhuizen et al., 2022).

1.6.2 Academic and Scholastic Significance

This study contributes to the academic discourse on leadership diversity and organisational transformation by extending the application of institutional and role congruity theories within the mining sector (Scott, 2005; Eagly & Karau, 2002). While previous studies have examined gender disparities in corporate leadership, research specific to the mining industry remains limited and fragmented (Takadi, 2021; Barkhuizen et al., 2022)

Additionally, this study builds on glass ceiling research (Dozier, 1988) by identifying new forms of invisible barriers that persist despite regulatory mandates. By exploring the qualitative lived experiences of leadership candidates, this research moves beyond

compliance-driven discussions to investigate organisational culture, workplace norms, and leadership development structures that shape leadership pathways in mining.

Furthermore, this study provides insights into gendered leadership dynamics in male-dominated industries, offering broader applications for sectors such as construction, energy, and heavy manufacturing (Heilman & Caleo, 2018). By bridging theory and industry practice, this research offers practical recommendations to ensure that leadership transformation in mining extends beyond numerical compliance to meaningful systemic change.

By incorporating these academic perspectives, this study advances the understanding of organisational barriers in leadership and provides a framework for enhancing leadership inclusion in the mining sector.

2. Chapter 2: Literature Review

2.1. Introduction: Background and Context

2.1.1. Global Gender Gaps in Leadership

Despite their growing participation in the workforce, women remain grossly underrepresented in senior management and leadership positions around the world. The disparity not only prevails in the private sector but also in the public sector reinforces the notion that it is a systemic problem rather than a cosmetic issue (Barkhuizen et al., 2022; Alqahtani, 2020; Buss, Andler & Tiberius, 2024; Flabbi, Macis, Moro & Schivardi, 2019; World Economic Forum, 2024; Herbst, 2020; Maid & Weber, 2020).

As captured in the Global Gender Gap Report 2024, women account for 42% of the total global workforce and just 31.7% of senior management positions with a sliding higher percentage at C-Suite level where less than 21.5% of positions are filled by women (World Economic Forum, 2024). However, even when women display similar or superior leadership competencies compared to men, they are overlooked for promotions (Alqahtani, 2020; Buss, Andler & Tiberius, 2024; Flabbi, Macis, Moro & Schivardi, 2019; World Economic Forum, 2024; Herbst, 2020; Maid & Weber, 2020).

The career progression of highly qualified women is limited, due to the fact that workplace cultures and structural biases focus on male leadership norms. These barriers remain in place despite the fact that research has persistently demonstrated that gender-diverse leadership teams enhance organisational performance and decision-making (Mary et al., 2023; Farmanesh et al., 2020; Li et al., 2020; Razaqat et al., 2022; McKinsey & Company, 2021; World Economic Forum, 2023; Franczak & Margolis, 2022).

According to Noland, Moran, and Kotschwar (2016), 60% of the companies surveyed globally had no female executives at all, which further reinforced the idea that women's exclusion from leadership is entrenched within corporate structures. This underrepresentation not merely reflects individual career choices but is instead caused by institutional barriers, the lack of sponsorship, and inflexible workplace cultures that place women at a disadvantage regarding the leadership path.

2.1.2. Gender Gaps in South Africa's Leadership Landscape

While gender equality is emphasized as a fundamental right in the South African Constitution, its application within public service is still impeded by the entrenched social and cultural practices that foster discrimination (Barkhuizen et al., 2022; Bangani & Vyas-Doorgapersad, 2020).

In the context of regulatory frameworks like the Employment Equity Act 55 of 1998 and Strategic Framework for Gender Equality in Public Service, changes have been rather gradual and inconsistent (Bangani & Vyas-Doorgapersad, 2020; Hanyane & Ahiante, 2022; Barkhuizen et al., 2022). The majority of government departments fail to meet the target of 50% female representation in senior management. According to Bangani & Vyas-Doorgapersad (2020), at this rate of approximately 1% per year, meaningful change has yet to be realized, and vision development for a changed South Africa will take until after 2025.

In their research, scholars (Makhutla, Naidoo & Rugbeer, 2021; Bangani & Vyas-Doorgapersad, 2020; Posel & Casale, 2019; Hanyane & Ahiante, 2022; Barkhuizen et al., 2022) found that the percentage of women occupying senior management positions is very low, despite overwhelming proof of the economic advantages of gender-diverse leadership.

This is also most apparent in male-dominated sectors like mining. South Africa is ranked 81st out of the countries in the world for Economic Participation and Opportunity with Parity score of 0.676 (World Economic Forum, 2023).

Economic barriers further exacerbate gender inequality in leadership. According to Posel and Casale (2019), while South Africa has made strides in gender equity legislation, such as ratifying the Beijing Platform for Action (1995) and the SADC Protocol on Gender and Development, these commitments have not fully translated into economic empowerment for women. Occupational segregation remains a significant barrier, with women disproportionately concentrated in lower-paying sectors rather than in executive roles. This lack of upward mobility is further reinforced by structural barriers in recruitment, promotion biases, and limited mentorship opportunities, preventing many women from advancing into leadership positions (Bangani & Vyas-Doorgapersad, 2020).

Workplace cultures still hold traditional gender stereotypes, implying that women have less opportunity to access leadership positions. Practically discriminatory behaviours from male managers and entrenched societal norms continue to sustain exclusionary power structures against full female participation in decision-making processes (Makhutla, Naidoo & Rugbeer, 2021; Bangani & Vyas-Doorgapersad, 2020; Posel & Casale, 2019; Hanyane & Ahiante, 2022).

While legal frameworks have provided a basis for practice inequity in gender distribution of leadership, the persistent gender gap indicates that systemic and cultural barriers require an overhaul for any real change.

2.1.3. Strategic Human Resource Management (SHRM) and Gender Diversity

The Strategic Human Resource Management (SHRM) approach creates a systematic pathway that addresses the gender gap in leadership by shaping human capital strategies towards achieving common organisational goals. SHRM framework proactively focuses on equitable talent management, recruitment and leadership development programs to create the necessary conditions for an inclusive workplace environment (Kumar, 2019). Reactive HR practices reinforce existing inequalities because they do not systematically address the structural barriers hindering the progress of women into leadership roles. SHRM, on the other hand, embeds gender diversity management into organisational strategies so that the recruitment, career progression and leadership opportunities are on merit rather than entrenched biases (Del Carmen Triana, Gu, Chapa, Richard, & Colella, 2021).

Even with effective implementation of SHRM, gender disparity continues because of the glass ceiling, which limits women from accessing senior positions despite their qualifications and competencies. HR policies that truly foster female leadership development, such as mentorship programs, transparency in promotion criteria, and leadership training, would reduce some of the barriers (Eshete & Birbirssa, 2024). However, other research claims that HR policies usually perpetuate gender disparity than reduce them (Galdiero, Maltempo, Marrapodi, & Martinez, 2024). Forms of institutional discrimination may prevail in various HR processes, ranging from performance

evaluations, networking opportunities, and succession planning, despite performing equal or better than their male colleagues (Buss, Andler, & Tiberius, 2024).

These systematically disadvantage women even when they have the requisite skills and qualifications to perform (Bangani & Vyas-Doorgapersad, 2020). The biased recruitment and selection procedure remains one of the topmost hindrances as researched. The leaders seem to be most often neglected because of very pronounced gender stereotypes that are deep-rooted in organizational cultures (Galdiero, Maltempo, Marrapodi, & Martinez, 2024). The bias can show up in performance reviews, networking opportunities, and succession planning—where women are less likely than equally or better-performing male peers to receive promotions (Buss, Andler, & Tiberius, 2024).

According to Galdiero et al. (2024), socially inclusive HRM policies drive organizational sustainability, and gender-diverse leadership teams are positively associated with better business outcomes while fostering more equitable workplace cultures. It also highlights that organizations which embed diversity and inclusion within their SHRM policies not only improve employee engagement but also gain competitive advantages in the international marketplace (Kumar, 2019). The incorporation of SHRM with gender studies literature also helps in understanding the systemic challenges that women face in leadership as well as strategies that can be incorporated to combat such hurdles. To achieve meaningful gender inclusion, SHRM has to operate beyond a compliance-driven approach by taking active steps to dismantle structural barriers that hinder the progression of women into senior roles. This includes:

- Institutionalizing gender-sensitive hiring and promotion policies to eliminate bias in the appointment of leaders (Del Carmen Triana et al.,2021; Bangani & Vyas-Doorgapersad, 2020).
- Establishing structured mentorship and sponsorship programs that will assist women in advancing their careers (Del Carmen Triana et al.,2021; Eshete & Birbirssa, 2024; Kumar, 2019)
- Policy on workplace flexibility and family-supportive policies where women will lead and balance responsibilities between work and home (Galdiero et al., 2024; Del Carmen Triana et al.,2021)

- Leadership accountability through the inclusion of measurable gender diversity targets into performance management frameworks Fostered (Galdiero et al., 2024; Bangani & Vyas-Doorgapersad, 2020).

By embedding these SHRM interventions, organisations can move from mere surface diversity metrics to nurturing a genuinely inclusive leadership pipeline that sustains gender-balanced equity in senior roles (Eshete & Birbirssa, 2024; Kumar, 2019).

Therefore, integration of SHRM with gender studies literature reveals a more holistic way of perceiving the systemic challenges that women face in leadership and actionable ways of overcoming those barriers.

2.2. Theoretical Frameworks and Concepts

2.2.1. Role Congruity Theory

The Role Congruity Theory (RCT) proposed by Eagly and Karau (2002) suggests that women leaders face challenges because of the unfulfilled expectations of congruence between gender norms and leadership expectations. Prejudice according to this theory occurs when the stereotypes of a social group conflict with the characteristics deemed essential for success in a specified role (Eagly & Karau, 2002). Most leadership roles have aspects linked with assertiveness, dominance, and decisiveness these are traits associated with men. On the other hand, women are typically perceived as communal; hence, they encompass characteristics such as empathy, warmth, and cooperation. The resulting incongruity produces two types of biases: women are less favourably judged for leadership positions and their performance in a leadership position is judged more stringently than that of men (Del Carmen Triana, Song, Um, & Huang, 2023; Barkhuizen et al., 2022)

Empirical evidence supports claims that women leaders encounter both types of role incongruities: descriptive and injunctive. Eagly & Karau (2002) describe two types of incongruities. Descriptive incongruity is that women are assumed to lack leadership qualities, while injunctive incongruity involves penalizing women for displaying agentic behaviours and thereby violating gender norms. These biases permeate hiring decisions, promotion evaluations, and performance assessments of women leaders on an aggregate basis to their disadvantage. According to Del Carmen Triana et al. (2023), women are

often perceived as less competent leaders than men even when they demonstrate equivalent or superior performance. Wang, Markóczy, Sun, and Peng (2019) uncover similar research results; they show that women get evaluated negatively for showing traditionally masculine leadership characteristics and hence receive lower evaluations from subordinates as well as peers.

RCT has been broadly applied in management and organizational research to account for the persistency of gender disparity in leadership. It has been related by scholars to gender workplace inequality phenomena like the pay gap, impediments to advancement, and restricted access to executive positions (Buss et al., 2024). The theory has also been applied to scope outcomes at the organizational level, which ventures how gender biases affect venture capital funding, boardroom diversity and firm-level strategic decisions (Anglin, Kincaid, Short, & Allen, 2022). Also, recent studies extend RCT beyond gender and introduce other social categories interacting with leadership stereotypes looking at race and age (Del Carmen Triana et al., 2023).

To overcome the barriers identified by RCT requires organizations to implement specific interventions that change the leadership norms and combat the gender stereotypes. Long-term contact with female leaders, as the research reveals, can significantly reduce the gender bias of perceptions in accepting women in leadership positions (Buss et al., 2024). For example, after prolonged periods of working under female supervisors, their evaluations become less influenced by stereotypical expectations. Other avenues include mentorship programs, clear promotion standards, and leadership development programs which can reduce the negative role incongruity effects (Anglin et al., 2022).

Despite the strides made so far, role congruity bias remains one of the toughest challenges in getting gender equality in leadership. Organizations should do more than apply diversity quotas, they should make structural changes that promote an inclusive leadership culture. This shall redefine the competencies required for leadership, ensure gender neutrality in performance appraisal, and actively challenge workplace stereotype through leadership training and awareness programs (Anglin et al., 2022).

By tackling role congruity bias, organizations can create a more diverse leadership team, thereby allowing women to advance based on their merits rather than a society's expectations. This includes effort diversity, inclusivity, and improved organizational performance and decision-making, among other things (Del Carmen Triana et al., 2023).

This is particularly evident in mining, where women are often seen as incongruent with leadership expectations (Mangaroo-Pillay & Botha, 2020).

2.2.2. Institutional Theory

Institutional theory explains how organisational norms, societal structures, and regulatory frameworks shape and entrench gender disparities in leadership positions. This theory asserts that institutions have developed persistent systems of norms and expectations that drive behaviours at the organisational level and individual career paths (Meyer & Rowan, 1977). In terms of gender composition, institutional theory holds that historical and structural norms have ingrained gendered assumptions in organizations that typically hinder the advancement of women to leadership positions (Zucker, 1987; Barkhuizen et al., 2022.)

One major aspect of institutional theory is that of institutional isomorphism, which elaborated on how organizations tend to conform to prevailing standards and pressures for legitimacy (DiMaggio & Powell, 1983). In corporate and public sector leadership, bias against women and male cultures become self-reinforcing as organizations replicate existing structures that favour men in leadership roles (Aksom & Tymchenko, 2020). This causes the rate of change to be quite slow because organisations regard any departure from the established norms as somewhat illegitimate or disruptive to their legitimacy (Dacin, Goodstein, & Scott, 2002).

The persistence of gender disparity at leadership ranks can be attributed to coercive, mimetic and normative pressures. Coercive pressures stem from legal and policy mandates such as the Employment Equity Act 55 of 1998 that compels organisations to increase gender representation at leadership ranks (Amenta & Ramsey, 2009; Barkhuizen et al., 2022). However, these policies are generally met with token compliance rather than real change, because organisations implement gender diversity program superficially without changing underlying biases in recruitment, promotion, and workplace culture (Meyer & Rowan, 1977). Mimetic pressures are in terms of organisations imitated those firms considered as leading the practice of gender inclusion in the industry. These efforts mostly been performative rather than transformative (Zucker, 1987). Normative pressures refer emanate from the professional networks and societal pressures tend to keep gender balance stagnant at the leadership level (Dacin et al. 2002).

Even with external demands for gender equality, men continue to have greater access to leadership opportunities because of more deeply entrenched institutional settings. Institutional theory argues that change in gender representation requires more than policy intervention. There has to be a change in organisational culture, stakeholder expectation, and leadership perception (Aksom & Tymchenko 2020). To surmount institutional resistance, organisations must be engaged beyond mere compliance-driven approaches by dismantling barriers through transparent succession planning, inclusive leadership development programs, and accountability mechanisms that challenge entrenched biases (Zucker 1987).

Change in institutional norms and practises is often slow and contested, requiring active involvement from both internal and external stakeholders to reshape gender norms in leadership. Institutional leaders and policymakers play a crucial role in challenging outdated gender norms and implanting new equitable organizational practices (Dacin et al., 2002). Without sustained institutional change, disparity in terms of leadership by gender will reinforce systemic inequality that impedes women's progression within the ranks (Kelly, 2019).

2.2.3. Human Capital Theory

Human Capital Theory provides an essential framework on how educational attainment, skills, and experience shape leadership paths. It holds that those who spend on education, training, and experience increase their productivity so that they realize higher economic returns and advancement in careers (Deming, 2022; Leoni, 2025; Alolayyan et al., 2021; Otoo et al., 2022). The theory from a gender perspective suggests that with rising women to higher levels of education and workforce participation, they should equally attain better earnings and representation of women in leadership roles. However, empirical evidence shows that such gender discrepancies in leadership persist despite advancement in human capital, implying that there are other barriers that influences women's career advancement (Mincer & Polachek, 1978; Buse, Bilimoria, & Perelli, 2013; Posel & Casale, 2019; Leoni, 2025).

While there have been significant strides in improving women's educational attainment, these strides have not proportionally reflected in leadership representation. According to Buse et al. (2013), even when women have similar qualifications and experience as their male counterparts, they face more challenges because they are often excluded from

networking opportunities and the promotion practices tend to be biased against them. The assertion by Posel and Casale (2019), that despite the unprecedented numbers of women entering the labour market with strong educational credentials, there is no proportionate increase in employment or earnings for them, especially in high-skilled and leadership positions speaks to undervaluing women in the labour market. This rather underscores the prevailing gender wage differential where women earn less than their male counterparts for having similar qualifications and levels of experience.

Such differences are also apparent in other labour market indicators in South Africa, hence reiterating the challenges women face in climbing to senior leadership roles. Although there's been a significant closing of the gender wage gap over time, it remains a challenge. Between 1993 and 2014, the average gender wage gap narrowed from 40% to 16%, partly due to better educational and occupational profiles of younger women. The other factor has been legislation on minimum wages that increased pay, particularly to women, in jobs that had been classified as lower-paying occupations (Posel & Casale, 2019). Despite having made these strides, the availability of leadership opportunities is still not equitable, indicating that human capital accumulation by itself cannot close the gender gap at the senior level.

In addition, gendered career interruptions, along with occupational segregation and discriminatory workplace norms, are key determinants of labour market inequality (Mincer & Polachek, 1978). While education and skills development are important, research shows that structural and institutional barriers have to be addressed; otherwise, women will remain underrepresented in leadership positions.

2.2.4. Metaphors as *Theoretical Constructs*

Metaphors are very powerful cognitive and linguistic tools that in conceptualising the complex social phenomena in which abstract challenges become more concrete and relatable (Grangeiro et al., 2022.) Metaphors in debates over gender and leadership provide a way of understanding the systemic and structural barriers that block women's advancement within organizations (Carli & Eagly, 2016). Vivid imagery as ceilings and labyrinths framing workplace inequality, simplify complex organizational dynamics while highlighting persistent barriers for faced by women (Grangeiro et al., 2022).

The use of metaphors also influences how gender disparities are perceived and addressed. They shape narratives of leadership by reinforcing or challenging stereotypes and bias in existing narratives (Huaman-Morillo et al., 2024).

Although metaphors serve well to portray the barriers that women face in advancing their careers, they remain flawed. The use of the metaphors below does not seek oversimplify the analytic dimensions of workplace inequalities, thus resulting in systemic and multifaceted problems are condensed into singular, static pictures (Moratti, 2020).

The below section critically examines these metaphors to assess their role in shaping discourse on gender diversity and leadership inclusion.

2.2.4.1. The Glass ceiling.

The glass ceiling effect is defined as an invisible but persistent barrier that prevents women from advancing to senior leadership positions, irrespective of their qualifications and experiences (Cotter et al., 2001; Espinosa & Ferreira, 2022; Saleem & Mateou, 2024). The glass ceiling is thus an apparent metaphor for the institutional and cultural barriers that hinder women's progress to senior leadership roles within an organisation (Huaman-Morillo et al., 2024). According to Cotter et al. (2001), this constitutes a form of workplace inequality that cannot be explained in terms of differences in job performance, qualifications, or experience but rather systemic gender bias, which manifests itself at much higher hierarchical levels. Such effects include restricted access to promotions, wage disparity, and the chronic underrepresentation of women in executive positions reaffirming gender inequality within the organisational structure. Thus, these continue to confirm gender inequality in organisational structures (Cotter et al., 2001; Espinosa & Ferreira, 2022; Huaman-Morillo et al., 2024).

Maheshwari and Lenka (2022) reinforce that the glass ceiling has not just been a result of individual workplace policies, but it arises from greater societal and cultural stereotypes that shape the perception of leadership.

Espinosa and Ferreira (2022) argue that the glass ceiling is not only a result of cumulative gender bias but also a structural issue embedded in promotion mechanisms that disproportionately disadvantage women over time. Using a Markov process, the authors illustrate that hierarchical selection criteria, even when seeming neutral, perpetuate gender disparity by placing men in a leadership pipeline (Espinosa & Ferreira, 2022). The

impact of this barrier is wider than just representation in leadership, it affects workplace dynamics and job performance.

Saleem and Mateou (2024) argue that perceptions of the glass ceiling adversely affect career satisfaction, commitment to the organization, and job performance for women, hence enhancing disengagement and workplace stress. However, the study shows that organisational support for work–life balance can mitigate these negative impacts, aiding in improving job satisfaction and retention of women leaders across different levels of the organisation (Saleem & Mateou, 2024). Cotter et al. (2001) further emphasises that dismantling the glass ceiling requires systemic interventions, as individual efforts alone are insufficient to overcome deeply ingrained organisational biases. Without affirmative policy changes and structural alteration, women's career advancement will continue to be hampered by invisible yet very persistent barriers (Cotter et al., 2001; Espinosa & Ferreira, 2022; Saleem & Mateou, 2024; Huaman-Morillo et al., 2024)

Other metaphors capture other dimensions of gendered career barriers. These include sticky floor, or structural restraints that trap women at lower levels, more or less inelastic restraint on upward mobility (Carli & Eagly, 2016)

2.2.4.2. The Labyrinth

The labyrinth symbolically captures the complex, non-linear pathways of women's careers, pointing to the multifaceted barriers that women encounter at different stages of their careers (Carli & Eagly, 2016; Vaz et al., 2023). Unlike the glass ceiling, which suggests a singular barrier at the top of the hierarchy, the labyrinth conveys that obstacles appear at multiple stages of career advancement, requiring women to navigate various detours, dead ends, and hurdles (Carli & Eagly, 2016). These include stereotypes and bias related to promotion and pay, access to fewer mentoring and networking opportunities, and extra family responsibilities that usually disadvantage the women's professional trajectory (Carli & Eagly, 2016). This metaphor acknowledges that the leadership ascent for women is more winding and rigorous than that for men, as it requires strategic navigation, persistence, and adaptability required (Vaz et al., 2023).

Empirical research reflects that indeed a metaphor of the labyrinth captures the diversity and interconnectedness of the challenges women experience at different organisational levels (Vaz et al., 2023). Career paths of Brazilian executive women were discovered to be characterized by re-entries, setbacks, and overt systematic gender discrimination

among broad classes of Brazilian organizations, reinforcing a concept of labyrinthine career paths as opposed to a single, transparent barrier (Vaz et al., 2023).

Furthermore, Gottardello (2023) takes this metaphor further by introducing the concept of a maze, which underscores the intersectionality of workplace inequalities in practice. This includes multiple layers of oppression, such as gender, race, and class, which are entrenched barriers to women's career advancement. This only underscores that the labyrinth is moulded by more comprehensive structural and cultural elements as well that further entangle advancement for all women but particularly those most marginalized (Gottardello, 2023). Thus, the labyrinth metaphor gives a more subtle and true picture of today's gendered barriers in careers, recognizing both advancement and lingering inequalities in getting to leadership (Carli & Eagly, 2016; Vaz et al., 2023; Gottardello, 2023).

2.2.4.3. The Old Boy's Club

The Old Boys' Club refers to an exclusive network of male peers that informs men's careers and further opportunities while almost systematically excluding women from essential opportunities in leadership and professional environments. Such an informal system relies on social interactions, men's shared experiences, and mutual support among them in high-status workplaces like finance, academia, and corporate leadership (Cullen & Perez-Truglia, 2019; Michelman, Price, & Zimmerman, 2021). The Old Boys' Club benefits markup does not relate to merit or performance-based outcome but rather relates to access to powerful networks and informal relationship building which usher in men's promotions and career advancement (Cullen & Perez-Truglia, 2019).

Evidence suggests that social relations, such as after-work gatherings, shared recreational activities, and informal mentorship are critical for the rapid advancement of men's careers, usually at the expense of women, who are often less able to access these networks (Cullen & Perez-Truglia, 2019). Evidence supports how networking advantages are gendered to sustain inequities in the workplace. Michelman, Price, and Zimmerman (2021) describe how elite social networks at universities seal long-term career trajectories, forming club memberships that substantially enhance men's earnings and leadership opportunities. Those effects transverse educational settings into corporate settings where male workers do have more retention of preferential treatment in promotions and job assignments, which serves to further entrench the gender gap in leadership (Michelman et al., 2021). In academia, Dada et al. (2022) demonstrates the Old Boys' Club dynamics,

where men remain in the editorial boards of journals as dominant members of the leadership positions controlling access to academic publishing and decision-making. This highlights that gendered gatekeeping in academia limits women's influence and penetrates male dominance in knowledge production and institutional decision-making (Dada et al., 2022).

Likewise, Setkute and Dibb (2022) investigate how networks of Old Boys' Club influence decision-making and access to markets in business, which serves only to demonstrate the barriers that women face in getting included in essential strategic conversations and circles of leadership within male-dominated industries.

2.2.4.4. The Leaky Pipeline

The leaky pipeline metaphor describes the progressive attrition of women from career pathways as they advance to higher levels of leadership (Gasser & Shaffer, 2014; Sato et al., 2021; Wickware, 1997). While The Glass Ceiling, as discussed in section 2.2.4.1 (Cotter et al., 2001; Espinosa & Ferreira, 2022; Saleem & Mateou, 2024), represents the invisible yet impenetrable barriers that stop women from reaching senior-level positions. The leaky pipeline highlights a gradual erosion of female participation over time, maintaining that systemic and cultural barriers are continuously hindering women's progression (Gasser & Shaffer, 2014; Wickware, 1997).

Almukhambetova, Torrano, and Nam (2021) argue that gender biases in leadership evaluations undervalue women's contributions to their work systematically, enhancing their turnover from leadership positions. The leaky pipeline is reinforced by a major factor that persistently underpins The Old Boy's Club culture, as discussed in section 2.2.4.3. A culture which enhances exclusionary networks that limit access to mentorship, sponsorship, and high-visibility projects (Gasser & Shaffer, 2014; Wickware, 1997). Access to informal networks is crucial, as these networks serve as gatekeepers to managerial and leadership positions, resulting in women remaining structurally disadvantaged in terms career progression. This relationship-based structural bias means that women's advancement in careers often depends on relationships and networks outside them (Wickware, 1997).

The double bind dilemma presents, which was discussed under Role Congruity Theory in section 2.2.1, itself most significantly yet in the need for women leaders to be competent and confident yet also warm and likable (Gasser & Shaffer, 2014). Those who lead with

boldness may be perceived as aggressive or unfriendly, but those who lead with decisiveness may lack the communal traits expected of leaders (Gasser & Shaffer, 2014; Sato et al., 2021).

Based on such perceptions, leadership evaluations become riddled with misunderstandings and contribute to higher attrition rates for women in leadership roles. More than anything else, the gendered division of labour inside the pipes creates holes. Women are overcharged with the tasks of administration, mentorship, and services toward that guidance which forms the greater part of the supportive duties. These are valuable tasks but undervalued in the assessment of leadership performance. (Almukhambetova et al., 2021; Gasser & Shaffer, 2014). This phenomenon, sometimes referred to as institutional housekeeping, keeps women from climbing the career ladder as it reduces their chances to engage in strategic decision-making processes. (Gasser & Shaffer, 2014; Wickware, 1997).

The effect of implicit bias in leadership assessments continues to worsen the leaking pipeline. Sato et al. (2021) explain that gender bias affects the evaluation of performances. Some research claims that women receive poorer ratings than their male counterparts, even though both groups possess identical qualifications.

However, contradictory evidence has been substantiated regarding its causative factors and effects. Many scholars argue that systemic discrimination remains the ultimate driving force behind women's attrition from leadership pathways (Gasser & Shaffer, 2014; Wickware, 1997). Others argue that gender disparities in leadership do not necessarily stem from overt discrimination when one takes into account career choices, industry-specific demands, and self-selection bias (Sato et al., 2021). For instance, Human Capital Theory holds that advancement in careers is based on individual merits, skills, and experience.

However, the leaky pipeline undermines this assumption and shows that even women with equal or better qualifications face greater attrition due to systemic biases (Gasser & Shaffer, 2014; Almukhambetova et al., 2021). Like this, Institutional Theory indicates that workplace cultures tend toward masculine leadership norms, thus undermining the legitimacy of female leaders (Gasser & Shaffer, 2014; Wickware, 1997). Sato et al. (2021) investigate gender bias in peer review evaluations. Some studies found systematic disadvantages for female applicants; others found no statistically significant differences.

This inconsistency illustrates the challenge of assessing gender barriers, as biases can manifest subtly rather than through explicit discrimination.

2.2.5. Hofstede's Cultural Dimensions

Hofstede's cultural dimensions give a basis for understanding how the national cultures will influence workplace behaviour, leadership styles, and organisational structure. The four key cultural dimensions as identified by Hofstede are, power distance, uncertainty avoidance, individualism versus collectivism, and masculinity versus femininity. These dimensions later developed in include long-term versus short-term orientation and indulgence versus restraint (Feldman, 2019; Thetsane, Meyer & Chambwe, 2024). These dimensions have been widely applied in various cross-cultural research studies involving leadership and gender differences in several cultural contexts (Gannouni & Ramboarison-Lalao, 2019).

Power distance is defined as the degree of acceptance by less powerful members of a society of an unequal distribution of power. Sub-ordinate groups generally accept the dominance of super-ordinate groups in high power distance cultures. Therefore, hierarchical structures are firmly upheld in such societies; subordinates are expected to accept authority without much questioning (Feldman, 2019). According to Terzi, Özdemir, and Özkan (2022), countries characterized by high power distance often consolidate firm leadership hierarchies which restrict the possibilities for women to ascend into leadership roles. Uncertainty avoidance is the measure of tolerance to uncertainty and ambiguities in a society. Countries with high uncertainty avoidance are likely to minimize unpredictability by all possible means which include the provision of well-structured environments, strong rules, and clear procedures.

According to Schutte (2019), leadership transitions can be affected by uncertainty avoidance because societies with strong avoidance tendencies resist change in the leaders' structures. This dimension applies very specifically to the South African organisational culture which does not yet fully succeed in embracing diverse leadership models (Feldman, 2019). Individualistic cultures focus on personal achievement, autonomy, and self-reliance; collectivist cultures emphasize group cohesion, loyalty, and shared responsibility (Gannouni & Ramboarison-Lalao, 2019).

In masculine cultures that are also highly individualistic, leadership is often associated with competitive, assertive traits that align with male stereotypes. This makes it even more difficult for women to traverse the leadership structure. The former creates an environment

in which collective leadership is appreciated along with communal values that encompass women leaders (Terzi et al., 2022). Masculine cultures value competitiveness assertiveness and achievement while feminine cultures place importance on cooperation care and quality of life. In such an environment Gannouni and Ramboarison-Lalao (2019) identified that leadership in masculine societies is mainly expressed with traits traditionally associated with male roles hence perpetuating the "Think Manager, Think Male" stereotype. This becomes a greater barrier for women in leadership roles since they have to prove assertiveness without seeming aggressive.

Long term orientation measures whether a society encourages future rewards from perseverance and planning or holds on to tradition and past norms. Short-term oriented cultures tend to resist changes in leadership gender diversity because they hold greater value to established traditions in history than progression policies (Feldman, 2019). The dimension of indulgence versus restraint reveals the degree societies allow human desires to be gratified. Indulgent societies are characterized by free expression and social mobility while restrained ones impose severe social norms that may act as hindrances against inclusivity for genders in leadership roles (Thetsane et al., 2024).

In South Africa, Hofstede's cultural dimensions can be interpreted as an amalgamation of historical factors, diversity, and changing leadership styles. High power distance has historically been greater in South Africa because corporate and political structures during the apartheid years entrenched rigid hierarchies. Leadership diversity has been made possible by affirmative action and the Black Economic Empowerment (BEE) policies; however, decision-making is still largely hierarchical (Feldman, 2019). This puts South Africa at a moderate level of uncertainty avoidance since organisations are adapting to change gradually yet still resist leadership transformation in most sectors, particularly male-dominated sectors such as mining (Thetsane et al., 2024).

Holding collective customs rooted in the African philosophical concept of Ubuntu and community-oriented leadership, South Africa contrasts sharply with the individualistic tendencies prevalent within corporate environments. Thus, while the country is generally classified as a collectivist society, the corporate environment frequently exemplifies individualistic, performance-oriented paradigms (Feldman, 2019). The high masculinity of the country mostly manifests in the mining and industrial sectors, wherein leadership includes aspects of competitiveness, assertiveness, and a dominant hand (Thetsane et al., 2024). This makes it particularly difficult for women to break through to senior leadership roles.

Short-term orientation is also pronounced because most South African businesses and policies are in the immediate outcomes rather than long-term structural change, therefore limiting sustainable progress in gender equity (Feldman, 2019). Traditional gender roles are still very powerful, especially in industries that are more conservative when leadership is still viewed as a male domain (Terzi et al., 2022).

2.3. Historical Context of Women in South African Mining

2.3.1. Pre-Legislation Era

The pre-legislation era for women in mining in South Africa was defined by systemic exclusion through legal, cultural, and structural barriers that reinforced gender-based discrimination in the industry. The Mines and Works Act No. 12 of 1911 explicitly barred their underground employment and this was to further entrench by amendments of 1926 and 1956 of this Act (Cruise, 2011). The International Labour Organisation (ILO) Convention of 1935 formally restricted female employment in mining due to perceived physical limitations (Kaggwa, 2020).

These laws were framed as protective measures, supposedly shielding women from the dangers of underground mining, but they ultimately institutionalised gender exclusion in one of South Africa's most significant economic sectors (Cruise, 2011; Benya, 2018).

More than legislative barriers, social norms, and industrial practice were entrenched against the entry of women into mining occupations. Mining was defined as a male domain. There were fundamental beliefs that physically strenuous and hazardous work should not be performed by females. Some miners believed in superstitions like the presence of women underground which would bring bad luck or unset production; therefore, it was justified to keep them excluded (Benya, 2018). Also, this structured industry depended on a male migrant labour system, and women were out placed in unpaid domestic and agricultural duties direct support of mining economies indirectly (Benya, 2018; Groenmeyer, 2011).

Though the mining activities were almost exclusively male, women did participate in some limited aspects. The asbestos mining industry was one of the few exceptions where

women were employed in "cobbing and sorting" from the late 19th century until the industry's decline in the 1980s (McCulloch, 2003). However, such jobs were low paying, and often their wages would be merged with those of their male spouses, thus reinforcing economic dependence (McCulloch, 2003). Women workers exposed to high health risks in asbestos mining include respiratory diseases but with little actual protection because of poor occupational safety standards (McCulloch, 2003).

Legal exclusion of women remained throughout apartheid, with racial and gendered policies in employment further deepening the absence of females in the industry. The Mines and Works Act also served as a tool for racial exclusion, restricting black mine workers to unskilled work while white males were given access to skilled jobs (Cruise, 2011). Cruise (2011) highlights that one of the direct consequences of The Mine and Works Act was that there were no formal educational avenues for female and black South Africans in mining. The University of the Witwatersrand and later the University of Pretoria became the only two institutions which offered mining engineering degrees, but up to the end of the 20th century, virtually all their graduates were men, and mostly white (Cruise, 2011).

There was active discouragement of women seeking careers in engineering because the laws of mining indeed prevented them from progressing professionally (Cruise, 2011). The gender-based provisions of the Mines and Works Act were only repealed in 1996, after democracy and with the advent policies aimed at redressing historical inequality (Cruise, 2011). Even after the repeal, there was significant resistance against the recruitment and retention of women into mining because work cultures, patterns of recruitment, and career progression structures still *bore the marks of historical exclusion* (Benya, 2018; Groenmeyer, 2011).

2.3.2. Post-Legislation Developments

The emergence of statutory frameworks within the South African mining industry supported impressive improvement in the participation of women within the sector. Enactment of the Mineral and Petroleum Resources Development Act (MPRDA) of 2002 and the Broad-Based Socio-Economic Empowerment Charter for the Mining Industry (Mining Charter) was a giant leap made in eroding the legal barriers that prevented women from participating in mining activities throughout history (Mangaroo-Pillay & Botha, 2020).

It focused on equalizing access to employment opportunities, setting quotas for female representation, and creating a working environment that is conducive to all. This has incrementally increased the proportion of women in mining from as low as 3% in 2002 up to 15% in 2018, thus reflecting the inherent sluggishness and transitional aspects of the sector (Mangaroo-Pillay & Botha, 2020; Kaggwa, 2020).

Apparent post-legislation realities are a testament to the fact that legal reforms have been incapable, in full of facilitating complete integration of females into the mining workforce. Barriers persist in workplace discrimination, the absence of opportunities and advancement in careers, and gendered occupational roles. The study indicates that women in the mining sector still face ongoing systemic barriers for promotion to decision-making positions and are confined to junior positions despite the existence of policies that support gender inclusivity, such as in the case of Kaggwa (2020). Disparities in remuneration and access to career development programs remain prevalent, exacerbating the challenges women face in progressing beyond entry-level positions (Kaggwa, 2020; Mkhwatsha, 2022)

The critical issue has been the gap between policy and practice and how certain mining companies manoeuvre their way around these gender quotas. Legal requirements demand higher female participation, and some companies opt for such female representation within non-core mining positions, often administrative and supportive roles rather than technical or leadership functions (Kaggwa, 2020). Over and above this, conceptions have also been raised concerning gender bias in training and upskilling initiatives where males continue to have better access to the preference of technical skill development programs that could further their careers (Mangaroo-Pillay & Botha, 2020; Mashaba & Botha, 2023).

Gendered workplace cultures in mining perpetuate the struggle of women who aim to work their way into the leadership structures of mining. Reports have it that stereotypical perceptions of physical ability hinder the employment and work allocations of women. Women who work in underground mines often have support roles rather than machine operations or high-responsibility job functions, hence perpetuating gender occupational segregation within the mining environment (Kaggwa, 2020; Sesele et al., 2021). The masculinity of the mining culture used to reject women and has thus set the tone for workplace relations and leadership perceptions and thus hampered their involvement in important decision-making processes (Sesele et al., 2021; Mashaba & Botha, 2023).

Women's representation in senior and executive roles remains significantly lower than men's, despite corporate commitments to gender transformation. A study by Mkhwatsha (2022) on South African coal mines found that while legislation mandates gender inclusivity, women are still underrepresented in leadership positions and are often placed in non-core operational roles rather than technical or decision-making positions. Additionally, occupational stereotyping persists, as women are frequently assigned roles perceived as more suitable for them, such as health and safety or administrative positions, rather than operational and high-responsibility leadership roles. This reinforces workplace inequalities and slows down the integration of women into strategic decision-making levels (Mkhwatsha, 2022).

Health and safety regulations have also emerged as a double-edged sword in post-legislation developments. While policies ensuring separate sanitation facilities and gender-sensitive occupational health measures have been introduced, many mining companies struggle to provide adequate infrastructure, particularly in underground environments (Mangaroo-Pillay & Botha, 2020; Mkhwatsha, 2022). Women miners report inadequate protective equipment, unsafe working conditions, and a lack of support structures that directly impact their ability to perform efficiently and safely (Msibi, 2025). Reports further indicate that women face higher risks of gender-based violence (GBV) and harassment in male-dominated mining spaces, making workplace safety a crucial yet overlooked challenge (Msibi, 2025; Mashaba & Botha, 2023; Barkhuizen et al., 2022).

Work-life balance remains another key issue for women in mining. Given the demanding nature of shift work and the remote location of mining operations, many women face conflicting responsibilities between work and family life. Research indicates that a lack of affordable childcare, rigid shift schedules, and the absence of flexible working arrangements continue to deter women from long-term careers in the mining sector (Mashaba & Botha, 2023). These factors have led to a higher attrition rate among women employees, contributing to the ongoing challenge of sustaining female representation in mining beyond compliance-driven recruitment initiatives (Kaggwa, 2020).

The Mining Charter amendments have sought to address some of these concerns by strengthening targets for female representation at different employment levels. The

revised charter mandates that at least 20% of board and executive management positions, 25% of senior management roles, and 30% of junior management positions be occupied by women (Mangaroo-Pillay & Botha, 2020). However, enforcement mechanisms remain weak, and compliance is often more symbolic than substantive. While the regulatory landscape has evolved significantly in the post-legislation era, the practical implementation of gender policies still lags behind, necessitating stronger accountability frameworks and organisational commitment to genuine inclusivity (Mashaba & Botha, 2023; Sesele et al., 2021).

2.4. Barriers to Women's Advancement in Mining

2.4.1. Cultural and Social Norms

Cultural and social norms within mining are deeply ingrained in patriarchal traditions, and thus highly resistant to female entrance into senior leadership positions. The industry is dominated by males who firmly uphold long-standing norms demanding physical strength, stamina, and an aggressive leadership style. Women are typically excluded from leadership because of this bias against women (Lahiri-Dutt, 2022; Barkhuizen et al., 2022).

South Africa is faced with many challenges based on the culture and socio-economic factors. The traditional views and practices continue to negatively influence how women are perceived in leadership and reduce their participation than men (Bangani & Vyas-Doorgapersad, 2020).

Stereotypical thinking regarding women in mining and, thus, their limited career progression is also quite profound. A good number of women often share negative attitudes regarding their technical and leadership capabilities due to which they are kept away from high-impact roles (Beyer et al., 2023). In turn, these biases further influence the organizational climate to marginalize females and not create a work environment conducive to female professionalism (Botha, 2018). Another element includes the unbroken social expectation of overworking to prove oneself in the mining industry that leads to burnout and demotivation as well (Muko, 2024).

In addition, to this social expectation of putting their families first above anything else in comparison to men, would also bring more limitations on their participation in leadership. Long working hours and the need to move to isolated sites may hinder women who are in

caregiving responsibilities from advancing in their careers (Mashaba & Botha, 2023). The absence of proper work-life balance practices and family-supportive work settings gives another aspect limiting women's advancement in the industry (Mangaroo-Pillay & Botha, 2020). Maternity provision not supporting women in mining, as conducted by Moroka (2015), also reveals that women often consider such issues as career stagnation upon joining back; hence, it once again limits their ladder to leadership.

Sexual harassment is another major concern since most women in mining are exposed to hostility at the workplace through both verbal and physical harassment, thus discouraging the women from this industry (Botha, 2016; Barkhuizen et al., 2022). Low adherence toward the anti-harassment policy makes the harassment environment subsequent to the occurrences with minimal consequences and discourages women further from taking up the position of a leader (Jenkins, 2014). Other reports indicate that there are instances where women working in the mining sector face retaliation for reporting workplace harassment. All these indicate systemic failure in ensuring workplace safety (Msibi, 2025).

2.4.2. Organisational Barriers

Gender discrimination in the career path is one of the most important obstacles that have plagued the female members of the mining workforce. Many women in mines revealed that they were not promoted though they were equally, if not better qualified than their male counterparts. In decision-making units, besides unconscious biases, some discriminatory practices help entrench a male-dominated leadership culture in mining organizations. The situation becomes worse as there is no culture of mentorship and sponsorship for women in the industry (Bansal, Nangia, Singh, & Cichoń, 2024).

The majority of women miners do not have access to the networks that would facilitate their advancement because the informal leadership networks are primarily male-dominated (Kansake, Sakyi-Addo, & Dumakor-Dupey, 2021). Professional networks are quite a challenge since mining has always been a male-dominated field. Its history has been a story of male patriarchal leadership. This makes it hard for women to access the very networks that would help them progress in their careers. The Old Boy's Club circles, being male, keep promotions and strategic roles — women are therefore even further marginalized in leadership (Sesele, Marais, & van Rooyen, 2021). Without sponsorship and mentorship opportunities, women's career progress would stall further and there would persist the "leaky pipeline" syndrome, where more women leave the industry at

more senior levels (Botha, 2016). There is not enough institutional support for the specialized programs that train women for leadership and thus caps their careers from all fronts (Moalusi & Jones, 2019).

One more important obstacle is the extent to which performance evaluations and leadership assessments are gendered, reiterating the point that women in mining are expected to deliver not only on competency but also on conformity to traditional gendered expectations of submissiveness and communal leadership (Beyer, Els, & Rossouw, 2023).

This double bind situation makes the successful women miners work still harder to keep proving their worth and battling the stereotypes against female leadership simultaneously. Increased feminine labour turnover in mining stems from insufficient career development support combined with weak retention policies and workplace exclusion as well (Mashaba & Botha, 2024).

2.5. Strategies to Overcome Barriers

2.5.1. Policy Recommendations

To cover the organizational and cultural hurdles that are holding women back in the mining industry, several strategies need to be put into action. First, there should be much wider mentorship and sponsorship programs specially designed for women. Expert mentors and professional sponsors for women will help them advance their careers and further integrate into the networks of leadership (Kaggwa, 2020).

Second, organizations need to offer gender-sensitive policies that address the bias in promotion and performance evaluation at the workplace. Standardized performance measures that wipe out the subjective bias will guarantee fair appraisals and improvement of female representation in the management capacity (Kansake et al., 2021). Also, policies that make promotion and succession planning transparent have also been viewed as a potential weapon to help fight the systemic exclusion of women from leadership pathways (Bansal et al., 2024).

The workplace culture also needs goal-oriented inclusivity. Periodic gender-sensitivity training should be held by companies to remove stereotypes and unconscious biases

against female leaders (Beyer et al., 2023). It is important to continually develop effective ways to report and create stringent consequences against workplace harassment to make sure women feel safe and valued in an environment (Botha, 2016). Appropriate measures must be established to ensure no form of professional reprisal against a woman for making an allegation is tolerated. Msibi (2025) also found that women hesitated in reporting wrongdoing concerns due to the fear of retaliation.

Flexible work arrangements and family-friendly policies help ensure that women are able to pursue their careers without sacrificing responsibilities toward their families. Remote work options, flexible scheduling, and on-site childcare services would enable the integration of women into leadership without necessitating the abandonment of personal commitments (Mashaba & Botha, 2023). Companies also need to come up with specific programs for women returning from maternity leave and ensure that they have access to the same advancement opportunities as their male counterparts (Moroka, 2015).

There could be other sector-wide initiatives that would support gender diversity, such as leadership training programs, or bursaries for female students interested in mining-related subjects, which could draw more women into the industry and make them stay (Mangaroo-Pillay & Botha, 2020). The regulating bodies need to be strict on the directives regarding gender targets in the mining companies, making it mandatory for the corporate to show commitment to diversity (Kaggwa, 2020). To ensure a sustainable transformation of the mining sector presents itself through real progresses rather than passive fidelity to regulatory settlements; that is, monitoring companies more directly, besides enforcing relevant laws is, therefore, gestured (Mashaba & Botha, 2024).

Robust gender-equity strategies can be implemented to help the mining industry break down barriers, both organizational and cultural, that stand in the way of women assuming leadership positions. That will mark the beginning of the mining industry on its way to promoting inclusion and diversity in the leadership landscape.

2.5.2. Best Practices from Other Industries

The Gender Mainstreaming Approach (GMA), as proposed in the study by Bangani & Vyas-Doorgapersad (2020), underscores the need for integrating gender perspectives into all facets of organisational decision-making. Without institutional transformation, gender equity efforts risk being tokenistic, fulfilling compliance requirements without achieving meaningful change.

In line with the establishment of mechanisms to monitor compliance with gender equality frameworks, The Department of Public Service and Administration (DPSA) in South Africa has been tasked with ensuring that gender equality goals are met, and that progress is reported annually (Bangani & Vyas-Doorgapersad, 2020)

2.6. Conclusions and Research Questions

The literature reviewed has pointed out that while legislative frameworks, such as the Mining Charter, have been introduced to improve gender representation in leadership, major constraints remain. Organisational bottleneck factors such as discrimination in promotion opportunities, lack of mentorship, and perpetuated workplace prejudices continue to constrict the above-glass ceiling female progress in the South African mining sector. Other material drawbacks relate to the cultural and social norms supporting gendered roles, and less enabling workers to create hostile environments against women's leadership. Policy is in place to embrace gender diversity, but the realization of this objective varies from one company to another, many companies paying lip service to this aspect.

Therefore, although some empirical studies have been conducted in this respect, gaps still exist in improving our understanding of the effects of combining organizational practice and cultural expectations with the existing policies. This paper deals with this gap by examining the following research questions:

RQ1: What are the organisational barriers and biases that hinder women's progression into senior leadership roles within the South African mining sector?

RQ2: How do cultural and social norms within the South African mining industry influence the career progression of women into senior leadership roles?

RQ3: To what extent do existing policies and initiatives, such as the Mining Charter, effectively support the advancement of women into senior leadership positions in the South African mining industry?

This paper tries to offer holistic insights into structural and cultural hurdles concerning gender representation at the highest level of leadership in the mining industry. The findings will, in turn, inform specific interventions aimed at enhancing gender inclusivity in leadership within the mining industry.

3. Chapter 3: Research Questions

3.1. Introduction

While gender transformation policies, such as the Mining Charter, have been introduced, At the organizational level, women have been facing extreme forms of challenges wherein they are not included in any leadership pipelines and also not being mentored, while unconscious biases in recruitment and promotional practices add more to the already existing ones (Mangaroo-Pillay & Botha, 2020). Workplace culture, however, remains deeply patriarchal and serves to entrench this viewpoint that mining leadership is one of masculinity by nature (Moalusi & Jones, 2019). More so, the cultural and societal norms have even thwarted women's leadership aspirations by loading further expectations of care and domestic responsibilities onto their shoulders (Mashaba & Botha, 2023). Although policies offer a sort of framework under which gender transformation can take place, on their own, they have not made substantial changes in the representation of leadership and, thus, compliance-driven practices do raise questions about their effectiveness (Kaggwa, 2020).

positions occupied by women in South Africa's mining industry are disproportionately low. Previous research has indicated the presence of several barriers that stop women from climbing up the career ladder; among them, organizational structures, cultural norms, and workplace biases strengthen the position of males in leadership (Mkhatshwa & Genc, 2022; Kaggwa, 2020). Even though gender parity has been part of the larger narrative regarding the general transformation of corporate leadership, the mining sector has been slow in embracing and respecting equity.

This study attempts to understand why systemic barriers remain even after policy intervention and to what extent existing initiatives facilitate women's upward mobility in mining leadership.

3.2. Research Questions

To address these gaps, this study is guided by the following research questions:

RQ1: What are the organisational barriers and biases that hinder women's progression into senior leadership roles within the South African mining sector?

RQ2: How do cultural and social norms within the South African mining industry influence the career progression of women into senior leadership roles?

RQ3: To what extent do existing policies and initiatives, such as the Mining Charter, effectively support the advancement of women into senior leadership positions in the South African mining industry?

3.3. Conclusion

By answering these research questions, the study seeks to unpack how organizational constraints, and cultural expectations interact with policy effectiveness to influence the development of pathways for women's leadership in mining. The results of this study will inform the debate on gender transformation in male-dominated industries and, where possible, policies and organizational strategies regarding sustainable gender inclusivity at leadership levels in the mining sector.

4. Chapter 4: Research Methodology

4.1. Introduction

This chapter outlines the research methodology adopted for the study. It provides a justification for the selected research design and approach, explaining how the methodology was used to address the research questions. The chapter further details the research philosophy, strategy, time horizon, population, sampling, data collection methods, measurement instruments, data analysis approach, and quality control mechanisms. Finally, the limitations of the methodology are discussed.

4.2. Choice of research design

4.2.1. Purpose of research design

This study adopted a qualitative research approach to explore the organisational, cultural, and policy-related barriers affecting women's advancement in the mining industry. Exploratory research best fits this described study because it is better applied in research conducted in areas where knowledge is low, thereby allowing new insights to be gained and a better understanding of complex social aspects (Saunders & Lewis, 2018). Since there is very little research conducted on female leadership in South Africa-let alone developing countries-this study will use an exploratory research design to study the barriers faced by women in leadership roles in the mining industry (Beloskar et al., 2024; Barkhuizen, Masakane, & Van Der Sluis, 2022).

The primary focus of the study, therefore, is not testing any hypothesis, rather, it helps in developing theories and frameworks which later explain a particular phenomenon (Queirós, Faria, & Almeida, 2017). Thus, this paper will support further research and future policy work. To develop specific recommendations toward advancing gender inclusivity within the mining industry, the authors expect to witness recurring themes and patterns.

4.2.2. Philosophy

The study was conducted based on an interpretivist approach, which will suited for research aimed at putting human meaning to social phenomena via lived human experiences (Kankam, 2019; Saunders & Lewis, 2018). According to interpretivism, there is social construction of reality, and reality is better understood from subjective meanings

and interactions (Queirós, Faria, & Almeida, 2017). This paradigm has been chosen since it aligns documenting the experiences of women in leadership positions, with in the South African Mining industry. These experiences identified how organisational structures and cultural norms influence their career trajectories.

The fundamental principles of Interpretivism are that participants' knowledge is co-generated with researchers. This strategy was essential in investigating the obstacles women encounter in the mining sector and let an in-depth analysis of personal experiences while appreciating the impact of more general society and organisational structures (Oranga & Matere, 2023).

4.2.3. Approach selected.

The study followed an inductive research approach, which is common in qualitative studies aimed at developing theories from data rather than testing pre-existing hypotheses (McGowan, Powell, & French, 2020). Inductive reasoning enables researchers to build theories based on patterns observed in the data, ensuring that findings emerge organically from participant experiences (Zeidan, Van Holt, & Whelan, 2020). This approach was appropriate for understanding organisational barriers that hinder women's career advancement, as it allowed the study to identify emerging themes and theoretical frameworks grounded in participant narratives.

In Chapter 5, these themes will be discussed in detail, illustrating how they emerged from the data and how they contribute to the broader discourse on gender and leadership in the mining industry.

4.2.4. Methodological choices

This study adopted a qualitative mono-method. only qualitative data was collected and analysed (Saunders & Lewis, 2018). This choice was also made because the research aimed at inductively developing rich understandings concerning the lived experiences of female mining leaders. Mixed-method research combines data from qualitative and quantitative sources. This study, however, was conducted according to a purely qualitative plan thereby ensuring the attainment of depth and complexity in the life experience descriptions given by the participants (Queirós, Faria, & Almeida, 2017).

A single-method approach ensured that the study remained focused on interpreting participants' perspectives without numerical generalisations. The flexibility of qualitative research also enabled deeper exploration of emerging themes, making it suitable for an exploratory study examining gender barriers in mining leadership (Atieno, 2009)

4.2.5. Strategy

Choosing phenomenology as the method of research for this study emphasises the need of thoroughly understanding the lived experiences of people negotiating leadership constraints in the South African mining sector (Creswell, Hanson, Plano & Morales, 2007). Examining how women view and negotiate occupational difficulties fits phenomenology's focus on recording personal experiences, meanings, and emotions (Oranga & Matere, 2023)

Phenomenological research, according to Neubauer, Witkop, and Varpio (2019), call for close interaction with subjects to expose their core of experience. This study revealed structural and cultural obstacles influencing women's leadership development by means of an interpretation of the stories of male and female leaders. Phenomenology let the study go beyond surface-level observations and provide a complex knowledge of systematic gender inequalities in the mining sector given the layered character of these events (Alhazmi & Kaufmann, 2022).

4.2.6. Time horizon

This study adopted a cross-sectional research design, where data were collected from multiple sources at a single point in time (Saunders & Lewis, 2018). A cross-sectional approach is widely used in qualitative studies to capture a snapshot of participant experiences and generate insights within a defined timeframe (Busetto, Wick, & Gumbinger, 2020). The cross-sectional approach provided a practical means to efficiently gather data within the constraints of time.

4.3. Proposed research methodology

4.3.1. Population

In research methodology, the population refers to the complete set of group members, which is not limited to people but could include organisations, places etc., that have the same characteristics as what has been studied (Sileyew, 2019; Saunders & Lewis, 2018).

To gain deeper insights into gender inequality and organisational barriers, scholars recommended that insights be obtained from all organisational stakeholders, including men, employers, and policymakers (Carrasco-Santos et al., 2024; Gebbels, Gao, & Cai, 2020)

The study population comprised females in top and middle management positions, Human Resource (HR) practitioners, and males in top management positions within the South African mining sector. Through their feedback, they provided valuable insights into the barriers at the organisational level, as well as the biases that hindered the progression of females into senior leadership roles.

4.3.2. Unit of analysis

Phenomenological research would usually use the unit of analysis from individual experiences to help capture lived realities and common phenomena shared by different individuals (Creswell et al., 2007). But, for this study, the unit of analysis is conducted at the meso level, which goes beyond mere individual narratives to consider organizational and structural influences on leadership progression in the South African mining sector. Providing insight into the intermediate space between micro (individual) and macro (societal) levels, groups, and organizations work as dynamic entities that shape individual experiences through their functioning (Serpa & Ferreira, 2019). This level of analysis is particularly useful for exploring organisational, social and cultural barriers that influence career progression of females in mining.

The unit of analysis in business research is critical in responding to the “who” or “what” is being studied question (Kumar, 2018). Accordingly, the unit of analysis for this study is male and female leaders in the South African mining industry, with more than ten years of experience. These criteria ensure that the respondents have been empirically exposed to the organizational norms, policy regulations, and the pathway of leadership over time. Looking at perceptions at this meso level, the study aims to first surface

systemic organizational barriers that impede the promotion of women into higher leadership positions while capturing general workplace dynamics that perpetuate this challenge. As stated by Serpa & Ferreira (2019), meso-level analysis allows the potential for discerning intra-group and intra-institutional themes that enhance a fuller understanding of gender-based career development.

4.3.3. Sampling method and size

The main objective of non-probability purposive sampling was to build a sample that could be viewed as characteristic of the population (Alhazmi & Kaufmann, 2022). As such, selection criteria needed to be established to admit a representative cross-section of the population (Saunders & Lewis, 2018; Alhazmi & Kaufmann, 2022; Creswell et al., 2007). Thus, a purposive sampling method was applied to select participants, having characteristics related to research objectives, intentionally.

This study has three key groups of participants to ensure that there is in-depth exploration and understanding of the organisational barriers within mining leadership:

Women holding senior leadership positions or mid-level leadership roles with a minimum of ten years of experience in the mining industry. Their views shed light on organisational difficulties plus barriers to career progression that can be gained first-hand.

Senior male leaders in the mining industry with a minimum of ten years of experience. Their views help understand the leadership dynamics, culture of the industry, and organisational structures that impact gender inclusion.

Human Resources (HR) professionals with at least ten years of experience in recruiting for senior leadership positions in mining. Their insights are useful in acquiring information regarding patterns of recruitment, structures of talent development, and effectiveness gender transformation initiatives.

A heterogeneous sample of 19 participants was derived (Saunders & Lewis, 2018). Data saturation, which is the principle that in qualitative research, new insights stop resulting from additional data collection after a certain point (Hennink & Kaiser, 2022), served as a guide in determining the final sample size. Saturation was reached when no new codes were added during the analysis process, indicating that the dataset adequately captured the key themes and variations in participants' experiences (Hennink & Kaiser, 2022).

In addition to purposive sampling, a snowball sampling approach was used to identify further possible people that were fitting the research criteria. This method revealed hard-to-reach individuals within the mining industry (Naderifar, Goli, & Ghaljaie, 2017). The sampling frame consisted of people known to the researcher who have been requested to recommend other people fitting the research criteria. However, in compliance with the requirements of Protection of Personal Information (POPI) Act 4 of 2013 and subject autonomy, the referring people sought the informed consent of the prospective respondents before divulging their contact information (Protection of Personal Information Act, 2013). Only when prospective participants agreed to be contacted were they approached for participation. This chain-referral approach, therefore, enabled the study to tap on a wider network of potential well-placed individuals, maintaining the voluntary and confidential nature of the research (Naderifar et al., 2017).

This is in line with some of the best practice approaches to achieving saturation. Data collection was monitored iteratively. Emerging new insights were documented during interviews thus ensuring that the final sample size was adequate to capture the complexity and diversity of the experiences of the participants and at the same time prevent unnecessary data capture (Hennink & Kaiser, 2022).

4.3.4. Measurement Instrument

The research used an interview guide, thus making the discussion remain structured while ensuring that the respondents have adequate flexibility to respond. An interview guide comprises a pre-determined listed set of questions to be asked to check-in assumptions or hypotheses and for systematic data collection (Pandey & Pandey, 2015). In this study, it served as a tool to establish the battery limits of the research, ensuring that discussions remained aligned with the study's research questions while capturing rich qualitative insights.

A semi-structured interview approach was executed utilising an interview guide, available in Appendix B, including 11 open-ended questions (Boyce & Neale, 2006; Queirós et al., 2017). Such methodology assured consistency in interviews, allowing all of its participants an opportunity to answer the same set of very basic questions, yet at the same time allowing the researcher to use follow-up probes for a much deeper exploration of some specific themes (Busetto et al., 2020). The very loose structure of the questions provided an outlet for the respondents to convey their experiences, perceptions, and opinions.

Thus, it allowed an elaborated discussion of some organizational barriers, the cultural aspect, and policy responsiveness in promoting leadership among women in the mining industry. The interview guide was properly designed to flow with the three research questions.

Interview Guide

The interview guide's Section A comprised two questions meant for capturing contextual information about the participants. Questions asked were related to their professional experience and leadership positions, through which information about career advancement within the mining industry, for each participant, was elicited. Knowledge of their professional background was necessary in understanding the responses in the thematic part as it helped place their attitudes towards leadership development, workplace issues, and corporate culture into context.

Formulating Interview Questions (IQ)

Section B had nine thematic questions touching on the most relevant aspects to the study's research questions. It discusses further the organizational barriers (RQ1) and cultural and social influences (RQ2) and the effectiveness of policies (RQ3), all within the mining industry that shape and support women's career advancement.

Table 1 below illustrates and justifies how each interview question was structured to extract insights relevant to specific research areas.

Table 1: Link between RQs and IQs

Interview Question	Justification	Research Question Link
B.1. In your experience, what are the key organisational barriers that have hindered your or other women's progression to senior leadership roles in the mining industry?	This directly addresses structural and workplace-related challenges that prevent women from advancing in leadership.	RQ1
B.2. How do you perceive the impact of cultural and social norms on women's	This explores how societal expectations, gender roles, and	RQ2

career progression in the mining sector?	workplace culture influence career advancement.	
B.3. Do you feel that the male-dominated nature of the mining industry has created specific obstacles for women in leadership roles? If so, can you provide examples?	This question bridges organisational barriers with cultural norms by examining how industry demographics affect leadership opportunities for women.	RQ1 & RQ2
B.4. What is your perspective on the effectiveness of existing policies, such as the Mining Charter, in promoting gender equality within your organisation?	This directly evaluates gender-related policies and their impact on leadership progression.	RQ3)
B.5. Have you seen any tangible outcomes from initiatives aimed at increasing female representation in leadership?	This assesses whether gender-focused initiatives and policies have led to measurable progress.	RQ3
B.6. What additional policies or support do you believe are necessary to help women advance to senior leadership positions in the mining industry?	This explores gaps in current policies and identifies areas for improvement to support women's leadership progression.	RQ3
B.7. What challenges do you think women face when trying to reach senior and executive management positions in the mining industry?	This directly relates to organisational barriers and systemic obstacles that hinder career progression.	RQ1 & RQ2
B.8. How do you think the underrepresentation of women in leadership roles affects the overall organisational culture and decision-making processes?	This explores the impact of organisational barriers and cultural dynamics on leadership structures and workplace decision-making.	RQ1 & RQ2
B.9. What do you think can be done to increase the representation of women in senior leadership roles within the mining industry?	This is a cross-cutting question that connects organisational barriers, cultural factors, and policy improvements in identifying strategies for improving gender representation.	RQ1, RQ2 & RQ3

4.3.5. Data gathering process.

Phenomenological research depends on interviews to build the story of the lived experience and perceptions of participants (Creswell et al., 2007). Semi-structured interviews constitute a relaxed and yet planned way of acquiring qualitative data inclusive of open-ended questions for discussing observed phenomena, surfacing new ideas, and sketching out regularity within diverse data sources (Saunders & Lewis, 2018). It gives structure and flexibility to the research.

All identified people were contacted via email to ask if they would like to take part in an interview for this study. In the email, they were provided with a brief explanation of the research, what it aimed to achieve, and how they would be involved. It also informed them of the confidentiality measures and the voluntary nature of participation. Any interested individuals replied expressing a willingness to participate, and an appropriate time was set for the interview.

Semi-structured interviews were conducted face-to-face wherever possible, while, if the participant was in a different geographic area, then interviews were conducted via Microsoft Teams, a web conferencing application (Saunders & Lewis, 2018). The digital nature of the research significantly contributed to improved accessibility, as it cut through logistic challenges that researchers often face. The modality of digital interviews receives increasing acknowledgment as a proper substitution for in-person approaches concerning long-distance research (Thunberg & Arnell, 2022). To mitigate technological challenges, where there is potential for internet connectivity problems and disruptions to visual cues, the researchers ensured that the participants were briefed on the platform prior to the commencement of the interview (Thunberg & Arnell, 2022).

Interview Environment and Participant Comfort

The interview environment played a significant role in participant engagement and openness during the data collection process. While face-to-face interaction availed the opportunity for direct communication and reading of body language cues of the respondent, some respondents seemed to be much more shy or more reserved, probably because the researcher was physically present. On the other hand, the online mode of interviews availed some anonymity, which seemed to make the respondents quite at ease and express their opinions quite freely. The similarities were my observations in the study

by Thunberg & Arnell (2022), that sometimes the formal digital conversation reduces the stress of the subject since it creates a neutral and less threatening space for the discussion.

To establish rapport and create a comfortable interview setting, the researcher initially kept the camera on during virtual interviews, allowing participants to see who they were speaking with. However, after this brief introduction, the camera was switched off, which appeared to enhance participant comfort and encourage open discussions.

After data collection, interviews were transcribed for accurate documentation of participants' responses. As such, transcription was positioned as the bridge between data collection and data analysis, demanding due process to ensure that the integrity by which the information was collected is maintained (Thunberg & Arnell, 2022). Audio versions were loaded onto ATLAS.ti for automatic transcription with later comparative quality assessments against auto-transcribed versions to ensure accuracy and to make adjustments whenever discrepancies were found (Thunberg & Arnell, 2022). Digital tools need verifiable rigor in the proofing cycle to ensure that the exact nuances of speech and meaning are not lost. This will be discussed later in more detail in the framework of another text, where very stringent cross-checking procedures were applied against the original recording text to rectify and readjust any anomalies by which meaning could be taken out of context (Thunberg & Arnell, 2022; Eftekhari, 2024).

4.3.6. Analysis approach

ATLAS.ti software was utilised in the coding work and thematic analysis process. It facilitated the process of data management to arrange the files in such a way that referencing for thematic retrieval was easy and straightforward. With ATLAS.ti, coded excerpts were juxtaposed against the questions. This ensured that the findings were aligned with the set goals of the study. Such an approach improved the trustworthiness and credibility of the analysis through structured and intense interpretation of collected qualitative data (Castleberry & Nolen, 2018).

The thematic analysis process undertaken followed the approach guided by Braun & Clarke (2023):

1. Data familiarization was done by listening to audio recordings and reading through the transcribed raw data to get an overview of the data content.
2. Generating Codes: The Coding process was carried out at two levels:
 - Open coding, where labels were attached to meaningful segments within the transcripts (Williams, 2019; Vaismoradi et al., 2016).
 - Axial coding, where codes were grouped based on their similarities and overarching meaning
3. Theme Identification and Review: Emerging themes were identified and developed to be compatible with the study objectives in descriptive terms. Themes were renamed and redefined wherever necessary to ensure clear and coherent reading.
4. Final Reporting: A thematic report was produced, in which the findings were systematically tabulated and framed in visual outputs from ATLAS.ti to assist in the interpretation and representation of data.

The abovementioned approach guaranteed in-depth, methodical consideration, thus delivering rich insights into the barriers faced by women in their efforts to progress into toward senior leadership.

4.4. Quality controls

4.4.1. Pilot Interviews

An interview was conducted in the pilot phase to evaluate the clarity and comprehension of question, before engaging the selected participants. This early version was helpful in improving the efficiency of the interview by pointing out ambiguities in questions and judging how long the interview would take and whether the recording equipment was working fine (Busetto et al., 2020). Despite time constraints, piloting with individuals resembling the target participants was essential to address any shortcomings and enhance the overall quality and validity of subsequent interviews (Saunders & Lewis, 2018).

In the pilot interview, the initial interview guide had ten questions. However, upon conducting the pilot session, it became evident that some of the questions were repetitive,

leading to unnecessary redundancy in responses. The specific issue was that two questions overlapped in their scope.

- B.9. What do you think can be done to increase the representation of women in senior leadership roles within the mining industry?
- B.10. What strategies do you think could be effective in overcoming the barriers that women face in advancing to senior leadership roles?

Both questions sought to explore potential interventions for addressing gender disparities in leadership but were framed slightly differently. They have been combined into one to enhance the quality of the question, improve interview efficiency, and avoid repetition.

4.4.2. Credibility

Qualitative research credibility relates to the extent to which the findings accurately reflect the experiences of the participants. Thus, this study increased its internal credibility by following established qualitative research methods such as semi-structured interviews, purposive sampling, and the practice of triangulation as best recommended in the literature (Shenton, 2004).

Given the researcher's background as a female leader in the mining industry, familiarity with industry culture, leadership structures, and gender-related challenges ensured that data collection was conducted with appropriate contextual sensitivity. Participants were encouraged to be open and honest, with the option to decline participation, while anonymity was emphasised to reduce social desirability bias and promote authentic responses.

Member checking took place during the interviews. Responses were summarized, and clarifications sought to ensure interpretive accuracy. In addition to triangulation: participant triangulation, male, and female leaders plus human resource practitioners were used to elicit all possible perspectives; methodological triangulation was ensured by manually cross-checking the transcripts with automated versions to validate the accuracy of the data (Eftekhari, 2024); and investigator triangulation was established through meetings with the study supervisor to reflect upon the findings and interpretations (Shenton, 2004)

For the study, credibility was substantiated by explaining the procedures thoroughly, mentioning the selection of participants, collection of data, and analysing, as well as

reviewing earlier research to compare findings and strengthen reliability. This made the generalizations described actually rooted in the lived experiences of the subjects, increasing the overall trustworthiness of the study (Shenton, 2004).

4.4.3. Confirmability

Confirmability ensures that the study's findings reflect participants' experiences rather than researcher bias (Shenton, 2004). To enhance objectivity, measures such as documenting decision-making processes, triangulating data sources, and maintaining an audit trail were implemented. These strategies ensured that conclusions were rooted in data rather than personal perspectives.

Compliance with South Africa's Protection of Personal Information Act (POPIA) was also prioritised to safeguard participant confidentiality. Data was anonymised and securely stored on GIBS Google Drive, in line with ethical approval requirements (Hertzog et al., 2021). Explicit consent was obtained, outlining clear data protection measures, and access to data was restricted to authorised personnel. In accordance with ethical best practices, research data will be retained for 10 years and securely deleted thereafter to prevent unauthorised access (Hertzog et al., 2021).

Following Hertzog et al. (2021), record management strategies were utilised to track data handling, storage, and security decisions, ensuring transparency and regulatory compliance. These measures reinforced the study's integrity, confidentiality, and confirmability, aligning with qualitative research best practices (Shenton, 2004).

4.4.4. Triangulation for reliability

Triangulation added credibility to the study findings. This relied on different viewpoints and methodological approaches to derive the same findings. Investigator triangulation was possible with a varied group comprising women and men in leadership and human resources positions in the mining company. Bias was removed since the evidence drawn was not from a single perspective (Saunders & Lewis, 2018; Shenton, 2004). Triangulation has been one acknowledged important key in qualitative research since it tends to invalidate bias against single method, single observer, and single theory approaches (Donko, 2023).

Methodological triangulation was also applied in the transcription verification process to ensure that qualitative data remained trustworthy. Given the reliance on automated transcription tools, challenges such as algorithmic biases, dialectal variations, and errors in homophones or punctuation were noted as potential risks (Eftekhari, 2024). To mitigate these challenges and ensure the correctness of data, the original recordings were reviewed, the verbatim transcriptions cross-checked, and their anomalies rectified manually. Following the idea raised by Thunberg & Arnell (2022), who highlight the importance of rigorous verification processes when using digital tools to maintain data integrity and ensure that nuances in speech and expression are preserved. The use of multi-layered verification steps enhances the reliability of transcriptions, which is an essential element in ensuring the trustworthiness of qualitative research (Donkoh, 2023).

Researcher triangulation was achieved through debriefings with the study supervisor, who subjected the emerging findings to very critical reflections. This collaborative process played a vital role in reducing researcher bias and strengthening analytical rigor, ensuring that the study's conclusions were not influenced by individual interpretation alone (Shenton, 2004). External perspectives helped to present possible inconsistencies in the information and grounded the interpretation in the stories presented by the participants instead of the assumptions derived from the researcher. Donkoh (2023) emphasize that researcher triangulation is particularly valuable when investigating complex research phenomena, as it introduces multiple analytical viewpoints, thereby enhancing the depth and credibility of the study.

4.4.5. Transferability

To guarantee the findings of the study can be applied in similar contexts, the study's findings are based on detailed descriptions of the research context and participants through which the findings can be interpreted in a wider framework than the specific study sample (Shenton, 2004). The study ensured that participants had at least ten years of experience in the mining industry and had held leadership roles, reinforcing the relevance of the data to leadership and organisational barriers in mining.

The study sample size was 19, adequate for strong qualitative analysis even with various and divergent perspectives. On average, each respondent was lasted for roughly 33

minutes allowing enough time to draw responses to the research questions fully. This was more than enough to gather rich and layered information on the individuals concerned. Data collection took two months, giving enough time to coordinate.

Data collection took two months, giving enough time to coordinate respondent availability for interviews and gather robust information.

4.5. Limitations

Several limitations were encountered in this study, which may have impacted the findings and the generalisability of the results.

4.5.1. Cross-Sectional Design

The study applied a cross-sectional study design to collect data at one point in time. Capturing the experiences and challenges that women encounter in leadership within the mining industry in the current timeframe. This limits the ability to trace changes in gender dynamics and the progression of leadership over time, the other. A longitudinal study would reveal the real process of barriers change and the influence of organizational policies, which has been formed during an extended period of time. (Saunders & Lewis, 2018). Cross-sectional studies are typically criticized for lacking depth as since they do not offer sufficient contextual information to understand the causal relationships between the variables (Queirós et al., 2017)

4.5.2. Self-Reported Data

The study's reliance on semi-structured interviews introduces subjectivity in data, in terms of perception, experience, and opinion of information. Response bias have occurred, as participants may have tended to produce socially desirable answers and, rather than express their views fully and objectively (Shenton, 2004). To address this limitation, anonymity and confidentiality were guaranteed, which prompted participants to provide honest thoughts (Atieno, 2009). Busetto et al. (2020) highlight that qualitative self-reported

data can be affected by memory recall bias, especially when individuals contemplate prior events instead of present observations (Busetto et al., 2020).

4.5.3. Sampling Limitations

Purposive and snowball sampling were applied to select respondents. Consequently, the abovementioned techniques proved efficient in narrowed identification of individuals with the industry experience required, and most probably lead to selection bias. Homogeneity may result from the process of snowball sampling since one respondent refers people who share the same backgrounds or views; thus, the diversity of views is minimized. This methodology is already considered a limitation of the study since the respondents tend to nominate persons having similar experiences and views to them (Guest, Bunce, & Johnson, 2006). While on the other hand purposive sampling brought out information-rich respondents, it minimized the breadth of voices across the sector thus affecting the findings' generalizability (Queirós et al., 2017).

4.5.4. Industry Representation

While the survey involved various mining organizations, results may not be completely generalizable to the entire South African mining sector. Differences within the sector on the base of geography, organization, and culture may mean gender dynamics and leadership barriers differ among companies. Further research could increase the sample to incorporate more mining houses from different provinces to increase representativeness (Creswell & Poth, 2018).

4.5.5. Ethical and Legal Constraints

POPIA presented several challenges in recruiting participants due to restrictions about access to contact details. Therefore, the first approach of recruitment had to be through referrals and other professionals' networks, which might lead to breach regarding how inclusive the data is collected. Ethical and data protection requirements for monitoring and compliance in the academic setting raise the bar even higher (Hertzog et al., 2021). Governance of research within POPIA guidelines calls careful balance between regulatory adherence and fostering meaningful participant engagement, thus affecting recruitment as well as the sharing of data practices (Hertzog et al., 2021).

5. Chapter 5: Findings

5.1. Introduction

The study findings are presented in this chapter, anchored on the research questions and the key emergent themes. Results are based on the analysis of qualitative data, with verbatim quotations that serve as rich illustrations of the perspectives of the research participants. These findings reflect the systemic barriers, cultural norms, workplace dynamics, and the efficacy of policies regarding the facilitation or lack thereof of women's advancement in the South African mining sector. Each dimension of the theme relating to the research questions is thus analysed to what extent organizational structure, the role of leadership expectations and policies influence the furtherance of women into top leadership roles.

5.2. Overview of Participants in study

This research was conducted based on a heterogeneous group of 19 respondents from different disciplines in a real mining setting. This should enhance understanding because it involves fairly lengthy work experience in technical as well as operational and management positions. They are currently employed as engineering consultants, production managers, and senior executives managing human resources, technical services, or supply chain functions. They have worked with several commodities such as coal, gold, platinum, diamonds, and base metals, among many others since their professional careers cut across different mining operations.

More diversity, both demographic and professional, will then be provided by the above respondents. They come from different racial groups including, Blacks, Whites, Coloureds, and Indians, therefore offering very divergent perspectives. Females are strongly represented amongst professional engineers, technical professionals, and managers who will provide critical insights into issues of career development and the barriers faced within what has traditionally been a male-dominated industry setting. The participants offer a variation in terms of the number of years spent in professional service, averaging 18.6 years in mining, thus constituting a mix of both mid-career professionals and seniors with over three decades of experience.

The education background is diverse and includes general engineering, metallurgy, geology, supply chain management, and human resources, thus providing an opportunity to canvass viewpoints from the whole value chain of mining activity, i.e. from exploration and reserves estimation to transformation, operations, and organizational management. The study also captures a range of interview formats, with discussions conducted both online and face-to-face. While interview durations varied, they followed a structured approach to ensure depth and consistency. Table 2 below provide a summary of the research participants.

The findings from these discussions provide a comprehensive view of industry trends, systemic challenges, and career progression dynamics within mining. The following sections present a detailed analysis of participant distribution in relation to academic background, commodity exposure, years of experience, and interview duration.

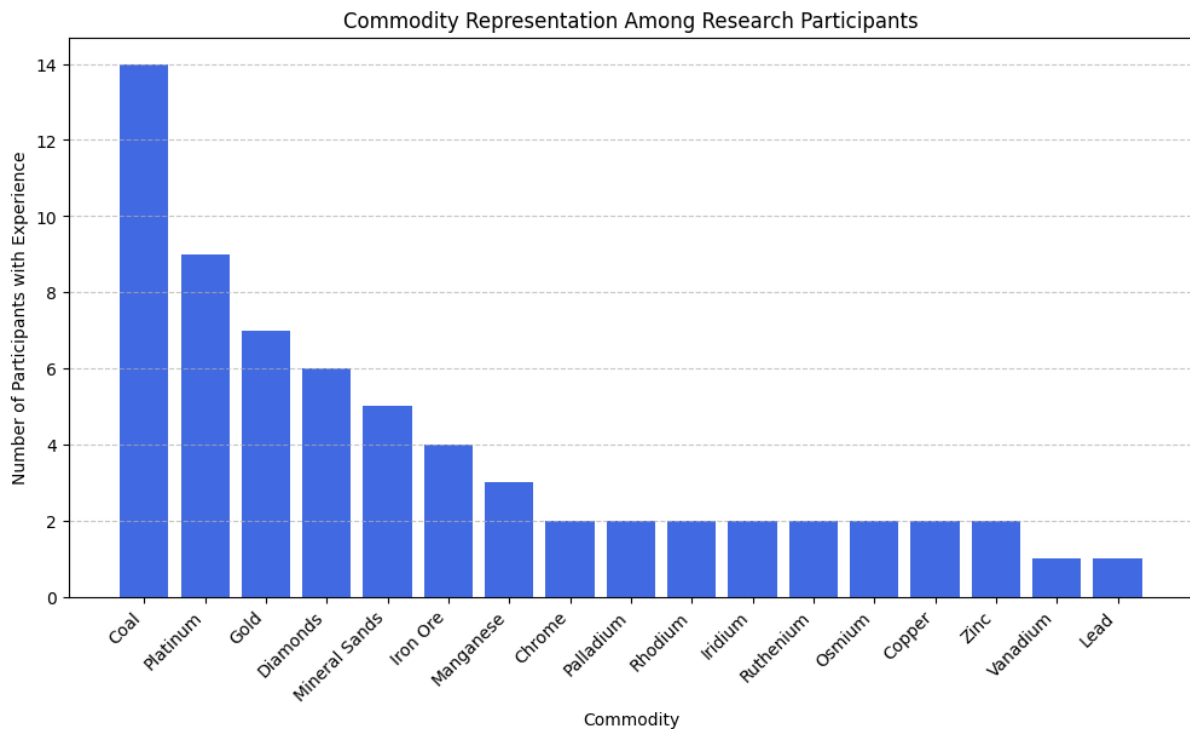
Table 2: Research Participants Summary

Participant Code	Gender	Race	Academic Background	Position	Years of Experience	Commodities	Interview Duration (in minutes)	Format
P1	Male	Black	Human Resources Management	Group Manager, Human Resources	22	Gold; Coal	37	Face-to-Face
P2	Female	Black	Geology	Technical Services Manager	16	Diamonds; manganese; Chrome; Platinum	37	Online
P3	Male	Black	Metallurgy	Production Manager	15	Vanadium; Platinum	35	Online
P4	Female	Black	Metallurgy	Transformation Coach	20	Gold; Coal; Diamonds; Platinum; Mineral Sands	49	Online
P5	Female	Black	Mechanical Engineering	Principal Engineer	20	Gold; Coal; Diamonds; Platinum	22	Face-to-Face
P6	Female	Black	Chemical Engineering	Senior Plant Manager	20	Coal	49	Online
P7	Male	Black	Human Resources Management	Group Culture Manager	20	Coal	49	Face-to-Face
P8	Male	Indian	Electrical Engineering	Principal Engineer	21	Coal; Diamonds; Mineral Sands; Iron Ore	34	Face-to-Face
P9	Male	Coloured	Electrical Engineering	Group Manager, Engineering	22	Coal; Diamonds	26	Online
P10	Female	Black	Metallurgy	Technical Support Manager	21	Coal; Mineral Sands	41	Face-to-Face

P11	Male	Black	Human Resources Management	Human Resources Manager	20	Gold; Platinum	30	Online
P12	Female	Black	Mechanical Engineering	Engineering Consultant	24	Coal; Platinum; Gold; Mineral Sands; Iron Ore	27	Online
P13	Male	Black	Human Resources Management	Human Resources Manager	15	Coal; Platinum; Palladium; Rhodium; Iridium; Ruthenium and Osmium; Chrome	22	Online
P14	Female	Coloured	Human Resources Management	Human Resources Manager	12	Coal; Manganese	10	Online
P15	Female	Black	Electrical Engineering	Unit Engineering Manager	16	Coal; Copper; Platinum; Palladium; Rhodium; Iridium; Ruthenium and Osmium	33	Online
P16	Female	White	Geology	Program Director: Mineral Resource Management	15	Coal; Lead and Zinc	21	Online
P17	Female	Black	Supply Chain Management	Supplier Development Manager	14	Gold; Diamonds; Mineral Sands	45	Online
P18	Male	White	Supply Chain Management	Manager, Category Management	31	Coal; Iron Ore and Zinc	28	Online
P19	Female	Black	Mining Engineering	Mining Superintendent	11	Copper; Manganese; Gold; Iron Ore; Platinum	41	Online

Figure 1 below illustrates the range of commodities in which participants have worked throughout their careers. The most represented commodity is coal, with 12 participants having experience in this sector. This is followed by gold (7 participants) and platinum group metals (8 participants, including platinum, palladium, rhodium, iridium, ruthenium, and osmium). Other commodities such as diamonds, iron ore, manganese, and mineral sands also feature prominently, demonstrating the diverse experience base within the sample. The broad distribution of commodities ensures that the study captures insights across multiple sectors within the mining industry, making the findings more comprehensive and generalisable.

Figure 1: Commodity representation.

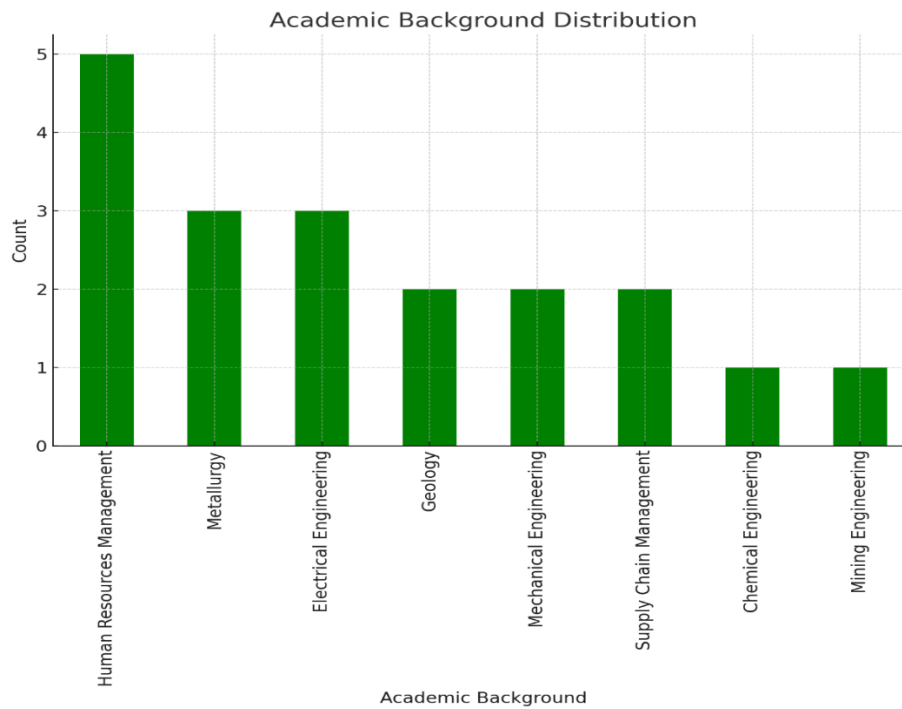


The academic background distribution reflects representation across the mining value chain, integrating technical, operational, and strategic functions. Geology (2 participants) and metallurgy (3 participants) contribute to upstream activities, focusing on mineral exploration, resource evaluation, and ore processing. At the core mining operations level, mining engineering (1 participant), mechanical engineering (2 participants), electrical engineering (3 participants), and chemical engineering (1 participant) ensure mine design, equipment functionality, process optimisation, and environmental compliance.

The midstream segment, involving processing and refining, is supported by metallurgy professionals (3 participants) specialising in smelting, mineral separation, and refining. Downstream functions are represented by supply chain management (2 participants), focusing on supplier development and logistics, while human resources management (4 participants) ensures talent development and organisational transformation.

This broad academic mix across exploration, production, processing, and management strengthens the study's insights into industry challenges and opportunities. Figure 2 depicts the academic background of the participants.

Figure 2: Academic background distribution.



A histogram, illustrated in Figure 3, of the years of experience shows how professional tenure in the mining sector is distributed. Most of the participants have an experience of between 15 and 25 years within which the largest measure is centered at 20 years. This value is equivalent to the smooth distribution curve denoted by the dotted line (Kernel Density Estimate) to show dispersion and concentration of levels of experience. The maximum experience is 31 years; the minimum is 11 years. This wide experience base suggests that insights from the study are informed by individuals with substantial industry exposure, allowing for well-rounded perspectives on leadership, organisational challenges, and career progression.

Figure 3: Years of experience Distribution.

Years Of Experience Distribution

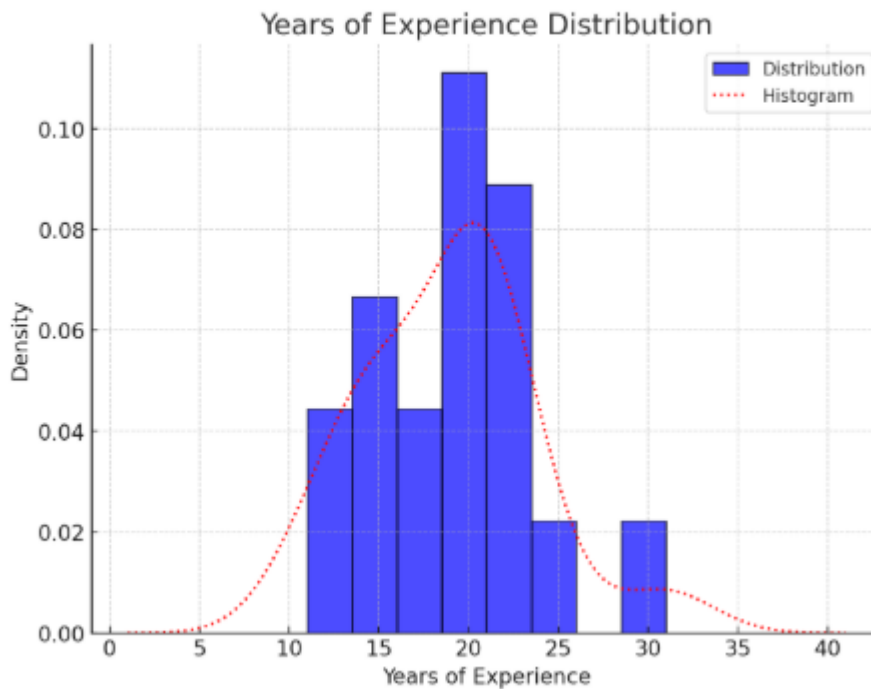
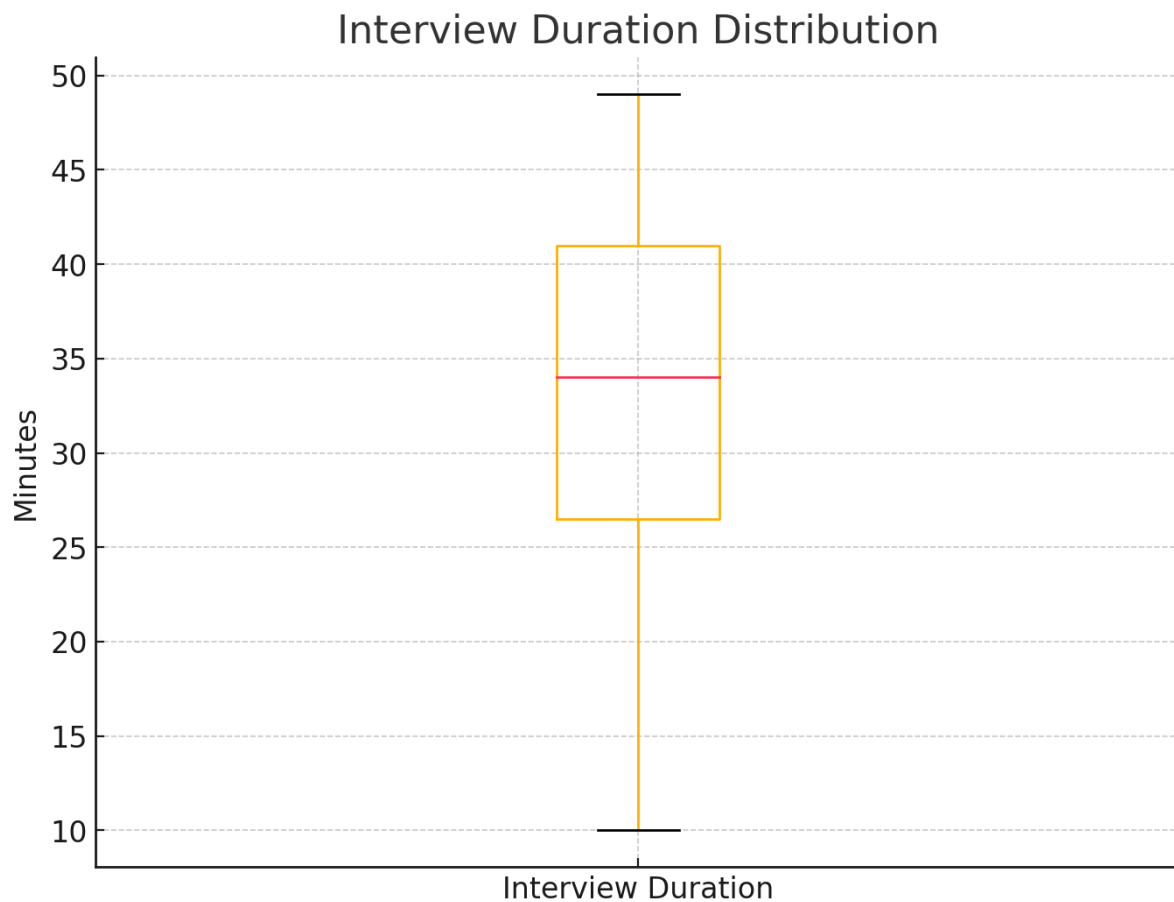


Figure 4, a boxplot of the interview durations gives the range and variability of interview lengths. The median interview duration ranges between 35 to 40 min, with the shortest lasting 10 and the longest 49. The mean interview duration is 33.5 min, which suggests that most interviews were conducted in approximately the same amount of time. The variation in duration may reflect differences in interview dynamics, the depth of participant responses, or the complexity of their experiences. Extreme values are absent too, thus suggesting the interviewer maintained a general line of questioning and engagement. The balance of shorter and longer discussions ensures that the data collected is both comprehensive and diverse in detail.

Figure 4: interview duration boxplot.



5.3. Coding Process and Theme Development

Thematic analysis was used to systematically examine participant responses, ensuring rigor, transparency, and alignment with the study's research questions. According to Williams (2019), coding is an organized procedure in which data is compressed, categorized, and then sorted into themes regularly in order to build up meaning. Vaismoradi, Jones Turunen, and Snelgrove (2016) see thematic analysis as a technique that brings out the themes while maintaining the complexity of the data thus allowing meaningful interpretations. In their study, Naeem, Ozuem, Howell, and Ranfagni (2023) proposed a six-step methodology to enhance the rigor, consistency, and reproducibility of the thematic coding process.

The analysis evolved through an iterative, multistage process yet constantly maintaining a structured linkage between the raw data, categories, and eventually emerging themes. It was noted by Vaismoradi et al. (2016) that systematic data reduction and interpretation can lead to analytical depth. Naeem et al. (2023) emphasized the need for the balancing inductive and deductive coding to ensure themes remain empirically grounded as well as conceptually sound. To further increase analytic clarity, the coding process was explicitly structured around the study's research questions, ensuring direct thematic alignment with key areas of inquiry.

5.3.1. *Aligning Codes with Research Questions*

The first stage was open coding from interview transcripts, where 196 codes were generated. Open coding is an approach defined by Williams (2019) as breaking down the data into easily accessible components so that patterns can be recognised, thus revealing embedded themes. Vaismoradi et al. (2016) further elaborates that open coding is necessary for the identification of core ideas and the differentiation between them and peripheral issues. This maintains the anchoring of the interpretation in participants' experiences. Naeem et al. (2023) affirm that the decision-making process in keyword selection at this stage may increase coder consistency and transition the initial data into structured categories. These codes reflected specific barriers, social norms, and policy implications affecting women's career progression.

5.3.2. *Code Categorisation*

The dataset was then grouped post open coding through categorisation; similar codes were grouped based on conceptual relationships between them. Codes that addressed gender-bias related concepts such as bias and stereotyping were classified under Discrimination and Bias, those addressing mentorship, leadership development, and career progression were under Career Development and Progression. This stage essentially assigned higher-order categories that formed meaningful clusters to the data so that related ideas could be consolidated into them in a manner expected.

According to Williams (2019), categorization is the first step in any piece of qualitative research. It is the process that forms a structural linkage between emerging patterns that

can enable the movement of a researcher from somewhat raw data towards theoretical constructs. Likewise, Naeem et al. (2023), also stress that the categorization must be both conceptually coherent and empirically grounded, which guaranteed codes not randomly placed but correctly and systematically arranged to unearth more in-depth analytical.

5.3.3. *Theme Development*

Six major themes developed through iterative coding of the code categories. Consistent with Vaismoradi et al. (2016), thematic synthesis moved from descriptive categories up to high-level themes, thus ensuring every theme encapsulates multiple interrelated concepts.

Through an iterative process, six major themes emerged: Systemic and Structural Barriers, Career Development and Progression, Discrimination and Bias, Workplace Dynamics and Culture, Work-Life Integration, and Transformation and Change. The development of final themes from categorized codes went through rigorous analysis, thus making sure that themes are not just descriptive but captured deeper patterns in data. As pointed out by Vaismoradi et al. (2016), thematic synthesis goes from descriptive categories up to conceptual themes, where each theme must encapsulate multiple interrelated issues rather than isolated ideas.

The development of themes was structured around three key analytical steps:

5.3.3.1. *Pattern Recognition*

Recurring themes across several codes were identified to ascertain similarities in participant accounts. This phase guaranteed that the research identified overall trends rather than discrete data (Williams, 2019). The interrelated concerns within the dataset prompted the categorisation of associated issues, uncovering significant organisational and cultural factors.

5.3.3.2. *Conceptual Alignment*

Codes were analysed within the wider working setting to ascertain the interconnection between corporate and societal concerns. The procedure entailed grouping codes that pertained to analogous facets of working experiences, delineating connections between structural and cultural components, and assuring coherence between categories and

emergent themes. This stage guaranteed that the final thematic framework preserved coherence and analytical rigour, as advised by Naeem et al. (2023).

5.3.3.3. Thematic Synthesis

Each theme represents a distinct but interconnected aspect of the workplace experience. The final themes emerged through an iterative process of data reduction and refinement, ensuring that findings accurately reflected participant perspectives. A comprehensive list of all the codes and how they were categorised is available in Appendix C.

5.4. Themes Linked to Research Questions

Following this, codes were analysed for patterns and relationships, leading to the formation of broader categories that reflected the research questions. Figure 5 depicts how the research questions were linked to the overall study.

RQ1 (Organisational barriers and biases) was addressed by the Systemic and Structural Barriers theme, which captured exclusionary workplace structures and lack of advancement opportunities limit women's career progression. The Workplace Dynamics and Culture theme further examined leadership interactions, male-dominated networks, and informal workplace cultures that disadvantage women, reinforcing how organisational environments contribute to barriers.

RQ2 (Cultural and social norms) is found under the second theme, Discrimination and Bias. The theme captures gender-based exclusion and stereotyping, and the societal norms that drive workplace dynamics. The fact that discrimination emanates from much broader cultural and societal contexts further labels it as a trickle-down process that affects the organizational climate regarding the opportunities created for women to take up leadership roles. Cultural expectations on women regarding dual responsibilities in professionalism and family life are themes in Work-Life Integration and they constrain women's ability to reach higher positions.

RQ3 (Effectiveness of policies and initiatives) was addressed under the Transformation and Change theme. The impact of the Mining Charter and other gender inclusion policies

were discussed their impact as well in seeking to balance historical gender imbalances are captured under this theme. This theme covers both successes and limitations of existing policies while identifies the implementation gap, presents the unintended consequence-tokenism in gender appointments.

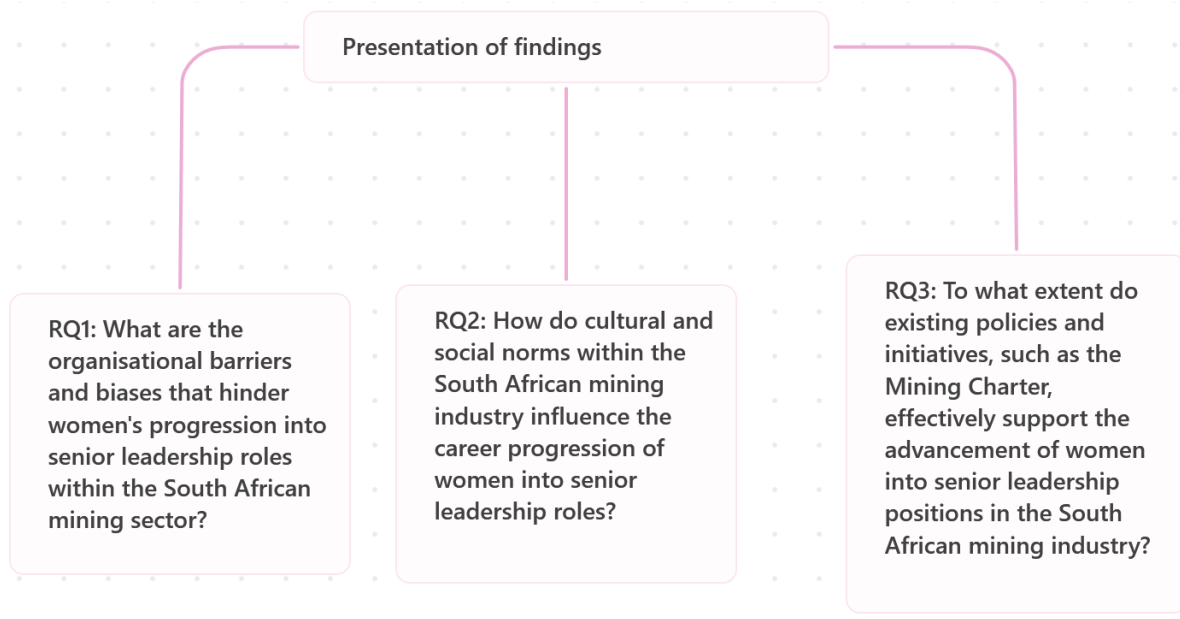


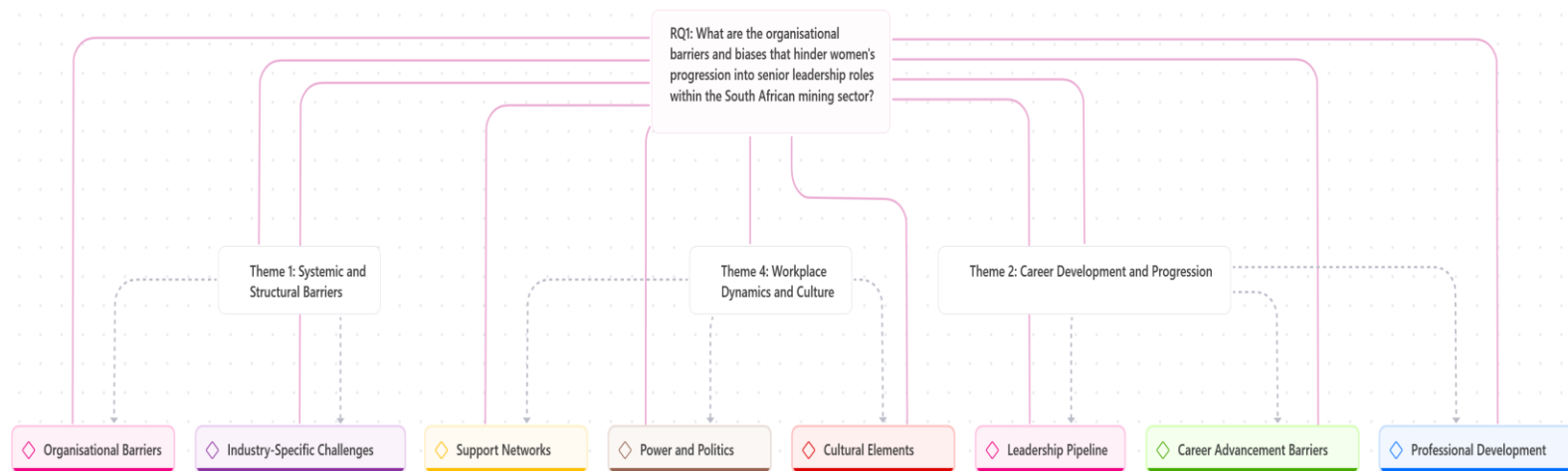
Figure 5: Study Research Questions

5.4.1. Research Question 1 Findings

RQ1: What are the organizational barriers that hinder women's progression into senior leadership roles within the South African mining sector?

Three themes emerged as particularly relevant to this question: Systemic and structural barriers, career development and progression, and workplace dynamics and culture. Together, these themes reveal how organisational environments, professional development opportunities, and workplace relationships create a complex web of barriers for women who want to take on leadership roles. The interplay between formal structures and informal practices demonstrates why, despite stated commitments to diversity, the mining industry continues to struggle with meaningful inclusion of women in leadership positions. Figure 6 below shows how the eight identified sub-themes are grouped into three different themes which are linked to RQ1.

Figure 6 : Themes linked to RQ1.



Theme 1: Systemic and Structural Barriers

Systemic and structural barriers in the South African mining sector act as great obstacles for females who would like to progress into senior leadership. This is because organizational resistance and industry-specific challenges contribute to the system exclusion of women in leadership role. This theme appeared 184 times across the interviews. Table 7 in Annexure C shows the codes link to the sub-themes and ultimately the themes.

Organisational Barriers

Organisational barriers refer to specific systemic challenges within the structure of the workplace and practises that contribute to the marginalisation of women in the mining environment and therefore hinder their advancement into senior leadership roles.

Participant Quotations:

1. "It is a known phenomenon where women are involved in leadership roles, but they are not part of the social aspect of things outside the organisation. This makes it difficult for them to feel a sense of belonging." (Participant 17)
2. "Because you don't drink with them. You don't golf with them. You don't go hunting with them. So how do you then even influence decision making if you are not part of the pack?" (Participant 19)
3. "Nothing. And you will make signatures. You will sign. You will be the accounting officer. But you will not have authority." (Participant 6)
4. "So as a woman entering a leadership role, when I talk about empowerment, you have the resources, but the environment is so hostile that you never get it right." (Participant 5)
5. "It is just a tick box exercise. The board meeting is just a formality. The real decisions are made elsewhere." (Participant 19)

Industry-Specific Challenges

Gendered workplace cultures in mining perpetuate the struggle of women who aim to work their way into the leadership structures of mining. Reports have it that stereotypical perceptions of physical ability hinder the employment and work allocations of women. Women who work in underground mines often have support roles rather than machine operations or high-responsibility job functions, hence perpetuating gender occupational segregation within the mining environment (Kaggwa, 2020; Sesele et al., 2021).

Participant Quotes:

1. "There were no female toilets in some buildings and women had to walk long distances just to access basic facilities. " (Participant 12)
2. "Mining was always seen as a man's job. Even now, many still believe that certain roles should only be filled by men." (Participant 6)
3. "Infrastructure is not built for women. Even basic things such as overalls are designed with men in mind." (Participant 1)
4. "Industry attractiveness is an issue. Much leave for other sectors because of the challenges in mining." (Participant 8)
5. "The workplace is physically demanding, and there is an assumption that women cannot handle it." (Participant 3)

Theme 2: Career Development and Progression

Kaggwa (2020) indicates that women in the mining sector still face ongoing systemic barriers for promotion to decision-making positions and are confined to junior positions despite the existence of policies that support gender inclusivity. Disparities in remuneration and access to career development programs remain prevalent, exacerbating the challenges women face in progressing beyond entry-level positions (Kaggwa, 2020; Mkhwatsha, 2022). This theme appeared 280 times across the interviews. Table 8 in Annexure C shows the codes link to the sub-themes and ultimately the themes.

Career Advancement Barriers

Career advancement barriers in the South African mining sector stem from systemic challenges that prevent women from reaching their full potential in leadership. Oftentimes, women are placed in positions without the requisite experience and support, thus setting them up for failure in an environment deemed un conducive towards their success. A great number normally find their progression blocked in the early stages of their careers, thereby limiting the pipeline of female talent to reach senior positions.

Participants Quotations:

1. "You will not find someone at that calibre... the rest have been clipped before they can even reach their potential." (Participant 2)
2. "So, you throw them in that position because she is female. She has the right qualifications, but she does not have the right experience." (Participant 2)
3. "They will put women there who are not capable... and end up failing because the environment is not conducive." (Participant 2)
4. "If they say pick up tomorrow and go to Cape Town, it is easier for men than for women with family responsibilities." (Participant 5)
5. "The careers of women in the mining industry should progress steadily within a 7 to 10-year period, yet it often takes much longer." (Participant 8)

Professional Development

Professional development is important in boosting career prospects but low access to the resources needed to acquire these skills, typically for women, makes it difficult for the

workforce to access quality training programs, meaningful job assignments, and chances to acquire new skills. Women thus lag in their development because of uneven training and development opportunities, gaps in training offerings, and limited opportunities to take on leadership responsibilities and gain that valuable experience.

Participants' Quotations:

1. "There should be a clear and deliberate discussion with your mentor every two years to assess competencies and skills gaps." (Participant 8)
2. "Women are developed and trained...but often without the necessary hands-on exposure to leadership roles." (Participant 1)
3. "Technical competency is questioned more by women than by men, even when they have the qualifications." (Participant 2)
4. "Exposure matters; if you are not invited to key meetings, you will not get the right development opportunities." (Participant 1)
5. "Fast-tracking women to leadership without proper preparation sets them up for failure." (Participant 8)

Leadership Pipeline

Women are often overlooked in key developmental roles. When in leadership positions, they are often isolated with little support. Most women are not hired on potential like men are they are hired based on results. They have to continuously prove themselves, which slows them down even more. Limited access to spaces where decisions are made, as well as the absence of strong informal networks, continues to hinder the leadership trajectories of women, reinforcing gender disparities in the sector.

Participants' Quotations:

1. "The old boys club ensures that women are not privy to important discussions outside of formal meetings." (Participant 17)
2. "Leadership succession planning is inadequate; women are often overlooked for key developmental roles." (Participant 12)
3. "When women get to leadership roles, they are often isolated, with minimal support structures in place." (Participant 7)
4. "Women struggle to access decision-making spaces because they do not have strong informal networks." (Participant 13)

5. "Men are hired based on potential; women are hired based on proven experience."
(Participant 12)

Theme 4: Workplace Dynamics and Culture

Mining has been a typical male-dominated industry with long-practiced cultural behaviour, which varies according to the experiences of different groups within the workplace. Deeply entrenched customs and power relations, especially disadvantaging women, determine their daily interactions and career advancement opportunities. The work environment, comprising informal networks, institutional practices, and leadership dynamics, create challenges for the career progression of women. This theme appeared 224 times across the interviews. Table 10 in Annexure C shows the codes link to the sub-themes and ultimately the themes.

Cultural elements

Workplace cultural element in mining have reinforced exclusionary forms that limit women in leadership. The existence of informal settings such as "Boys' Club," a men-inclined social network, is where much of the critical decision-making is done and invariably women find themselves left out. Women who lack access to these social spaces stand little chance to develop relationships that endorse their movement up the ladder and decision-making positions. Absence of inclusion does not create any bond for women in leadership with the organization; therefore, it is very isolative of the top circles where real issues are discussed.

Quotations:

1. "Boys will talk. But now, when there is a woman, men are not bringing the women into the boys club." (Participant 4)
2. "It is a known phenomenon where women in leadership roles are not aware of social aspects, making it difficult for them to belong." (Participant 17)
3. "Because you don't drink with them, you don't golf with them, you don't go hunting with them... so how do you even influence decision making?" (Participant 19)

Power and Politics

Mining company power structures create systemic barriers to real authority and influence for women. Token appointments and symbolic leadership roles obscure deeper layers where actual decision-making power is denied to them. Women, when able to break into the ranks of leadership, often face challenges and find themselves left out of key informal networks through which decisions are made.

Quotations:

1. "It is strategic. When you reach a certain level, a filter is applied. They don't want women to go beyond that point." (Participant 2)
2. "Discussions take place in informal settings like golf courses, where women are not included." (Participant 3)
3. "We were told that if those two women worked together, they would overthrow the leadership, so they were not hired." (Participant 2)
4. "At face value, women are accepted, but they are not invited to real strategic discussions." (Participant 13)
5. "The company wants to check a box for employment equity but will not give you the power." (Participant 6)

Support Networks

Management and professional networks are indispensable in career development. Women in mining generally do not have access to those networks and support systems. Most careers advance along informal lines through mentorship and sponsorship. This kind of advancement is typically developed in male-dominated circles, which involves critical mentorship and advocacy for professional growth, thus excluding women without such guidance.

Quotes:

1. "Business relationships are built in social events, golf courses, barbecues, hunting trips, where women are absent." (Participant 1)
2. "We have an annual hunting excursion, all men. It is hard to bring in a woman because she is seen as foreign to the federation." (Participant 3)

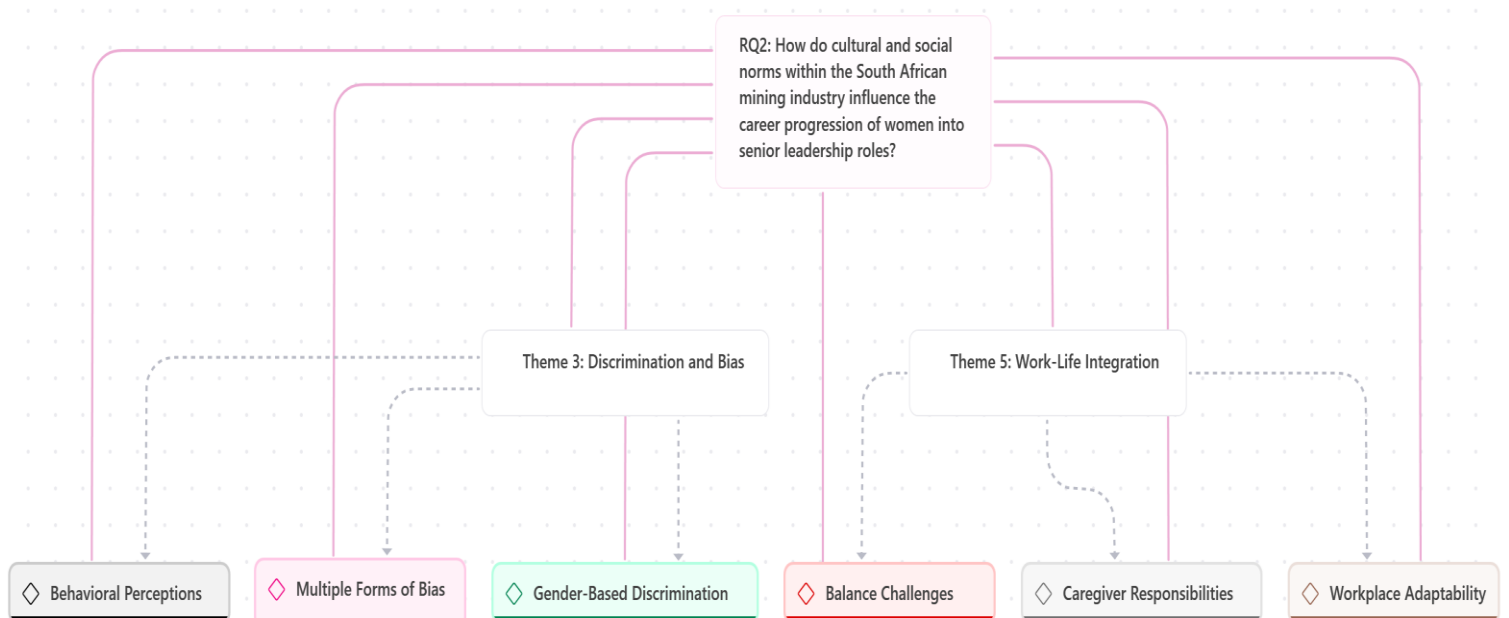
3. "Women in executive roles are not part of informal social circles, making it difficult to belong." (Participant 17)
4. "Most of the time, women in senior roles do not receive the right support or structures." (Participant 7)
5. "Mentorship should be a structured and deliberate process to ensure equal development." (Participant 8)

5.4.2. Research Question 2 Findings

RQ2: How do cultural and social norms within the South African mining industry influence the career progression of women into senior leadership roles?

RQ2 (Cultural and social norms) is found under the second theme, Discrimination and Bias. The theme captures gender-based exclusion and stereotyping, and the societal norms that drive workplace dynamics. The fact that discrimination emanates from much broader cultural and societal contexts further labels it as a trickle-down process that affects the organizational climate regarding the opportunities created for women to take up leadership roles. Cultural expectations on women regarding dual responsibilities in professionalism and family life are themes in Work-Life Integration and they constrain women's ability to reach higher positions. Figure 7 below shows how the six identified sub-themes are grouped into themes which are linked to RQ2.

Figure 7: Themes linked to RQ2.



Theme 3: Discrimination and Bias

Most women who are in leadership also face double discrimination, which involves gender-based discrimination against them and how they carry out their responsibilities since their credibility often gets undermined. Available beliefs on leadership capacity often unduly favour men, therefore restricting women from gaining access to positions of decision-making and promotions. Those biases, both overt and subtle, become inevitable non-transparent barriers for women to move forward and remain in workplace inequalities. This theme appeared 31 times across the interviews. Table 9 in Annexure C shows the codes link to the sub-themes and ultimately the themes.

Gender-Based Discrimination

Gender-based discrimination in the mining industry is a major stumbling block for women in their career progression. Several cultural and work biases have solidified the narrative that leadership and technical roles belong to the men's world, thus it becomes very difficult for women to crack through and gain admittance and credibility. Women are often unfairly blamed for workplace failures, compared to male counterparts, and excluded from opportunities due to assumptions about their capabilities. Industry standards also place favour to the male terming them as the best candidates for the rough working conditions, as well as religious and cultural beliefs of making the men the natural leaders further marginalized the women.

Supporting Quotations:

1. "The biggest barrier, which is still there, is that women are still discriminated against, particularly black women." (Participant 1)
2. "When I returned from maternity leave, my department was no longer performing, and I was held responsible." (Participant 2)
3. "In mining, they say they prefer to take men because operators and artisans can be rude, and they believe that only a strong man can handle them." (Participant 14)
4. "Women are often compared to their male counterparts. When an error occurs, the assumption is always that it happened because a woman made it." (Participant 14)

5. There are certain industries and positions that have always been viewed as male domains, not for women." (Participant 6)
6. "Culturally, we don't see women as capable of producing the same results as men." (Participant 15)
7. "Religiously, the male is always given the role to lead." (Participant 10)

Multiple Forms of Bias

The multiple bias forms in the mining sector create significant barriers for women regarding their career progression and workplace experiences. They are subjected to ageism, where young females who are overlooked for leadership even if they are more experienced than male counterparts. Subtle forms of exclusion such as indirect conversations and unconscious gender performance evaluations further minimize their credibility. The additional race-only bias black women face limits their advancement opportunities. There is also a selection bias that puts women in leadership but without support for diversity targets, ultimately making their success more difficult to achieve.

Supporting quotes:

1. "I was told I was too young for an HR manager position, but I reported to someone younger than me with less experience." (Participant 14)
2. "People are asking indirect questions, structuring conversations in a way that shows 'we see you here, but we don't really see you'." (Participant 7)
3. "There is an unconscious bias that plays out in performance management: If your leader dislikes you, you are underrated regardless of your competence." (Participant 4)
4. "Black women face a double disadvantage: they suffer due to race and then again due to gender." (Participant 3)
5. "There is selection bias, where women are often placed in roles for diversity goals, but without the support needed to succeed." (Participant 8)

Behavioural Perceptions

In the mining sector, behavioural perceptions epitomize a double standard of expectations for leadership among women and men. Men can show an assertive nature and can easily be perceived as strong leaders, however, the same qualities shown by women can have them stamped as overly aggressive or bossy. In addition, women are expected to show

nurturing behaviours. As such, those stereotypes above all else encourage women in authoritative positions to make emotional over authority choices. The same attitude has far greater expectations for females to shoulder more of the responsibilities of proving themselves competent when males simply take up the position of equals in the same roles. Such biases often make it very difficult for women to be taken seriously and navigate leadership spaces.

Supporting quotes:

1. "If a man is assertive, he is seen as strong. If a woman is assertive, she is labelled aggressive." (Participant 1)
2. "Women in leadership are often expected to be 'nurturing' and create a soft, home environment at work." (Participant 5)
3. "Sometimes, the exact same reaction of a woman and a man is interpreted differently: when a man does it, it is normal; when a woman does it, it is 'difficult'." (Participant 17)
4. "The leadership expectations placed on women differ from those on men. Women are often seen as 'bossy', while men are called 'assertive'." (Participant 5)
5. "A woman in a leadership role has to work ten times harder just to prove herself, while a man in the same position is taken for what it is worth." (Participant 10)

Theme 5: Work-Life Integration

The integration of work and life continues to be very problematic for South African women in mining because both the cultural and organisational norms do not accommodate for double responsibility. Whilst developing into demanding leadership positions, care responsibilities will frequently detract from females. Balance challenges arise as career progression often requires long hours, travel, and relocation; these factors disproportionately impact women with family obligations. These inflexible demands make it difficult for women to journey into a long-standing commitment to mining while having other personal dependencies, therefore closing off opportunities for attaining senior leadership. This theme appeared 62 times across the interviews. Table 11 in Annexure C shows the codes link to the sub-themes and ultimately the themes.

Balance Challenges

Balancing challenges in the mining sector is an issue that many women have make difficult decisions between their careers and personal responsibilities. This expectation has created an impossible standard where both their commitment to work and home are judged. Structures are more focused on careers demanding rapid advancement where women who choose to attend to personal responsibilities fail to advance professionally. The reflection of the society at large has not changed much which remains enshrined despite evidence to an effective alternative work model from the COVID-19 era. Thus, many women face a constant struggle to integrate their professional lives with personal responsibilities and some may find it easier to advance if they are single or without children.

Quotations:

1. "You will need to decide which one is your glass ball and which ball you are going to let fall. And more often than not, that is why it is easier for women if they are divorced or without kids." (Participant 5)
2. "There is an expectation that sacrifices must be made. If you want to be a mother, a wife, and a professional, something has to give." (Participant 5)
3. "We need to consider some flexibility when considering women's careers because COVID showed us that things can work differently." (Participant 1)
4. "The careers of women in industries like ours are structured so that you progress fast and sacrifice family, or you slow down and never catch up." (Participant 8)
5. "Leaders' women are judged for not being present enough at home and not being present enough at work: it is an impossible standard." (Participant 9)

Caregiver Responsibilities

Caregiver responsibilities fall heavily on females in a way that is highly disadvantageous to their careers as compared to men. Women normally take the lead in a much larger proportion of parenting tasks, right from dropping the child to school to family logistics and much more, usually at the cost of their own professional advancement. For women, maternity leave is a career disruption. Moreover, returning women often find themselves left behind their male counterparts who faced no similar setbacks. High-achieving men can continue their career trajectory relatively unencumbered by parenthood. Working women must contend with workplace stereotypes in which caregiving is viewed as a mark

against a woman's professional promise, making it harder for them to restart their progress toward leadership.

Quotes

1. "You are the primary caregiver. Whether it is school drop-offs, WhatsApp groups, or knowing what is happening at school, that responsibility falls on you." (Participant 1)
2. "The time away from work due to having children and taking care of them affects our career progression in ways that men never experience." (Participant 9)
3. "Maternity leave is seen as a career pause, while for men, parenthood is a minor event in their professional lives." (Participant 14)
4. "By the time I returned from maternity leave, my role had been subtly shifted to something less strategic." (Participant 2)
5. "We disappear for a while to take care of the children, and when we return, we are years behind compared to our male colleagues." (Participant 9)

Workplace Adaptability

Workplace adaptability for women in the mining sector is still a contentious issue. The traditional perspective on work and productivity has not evolved to meet modern societal demands. Women are expected to complete all duties in both domestic and professional spheres. The formality and in preference of remote work by most companies remain intact; physical presence is often considered commitment. When flexibility is offered, though, those who take up the opportunity would be adversely commented upon for not being that much dedicated. New technologies do not bring about a more straightforward work-life integration. Rather, they have driven up the demand for women to be there and support is not there for them to juggle two roles.

Quotes:

1. "We are expected to work like we don't have families and raise families like we don't work." (Participant 5)
2. "Remote work has shown potential, but companies are hesitant to make it permanent, even when productivity proves otherwise." (Participant 1)

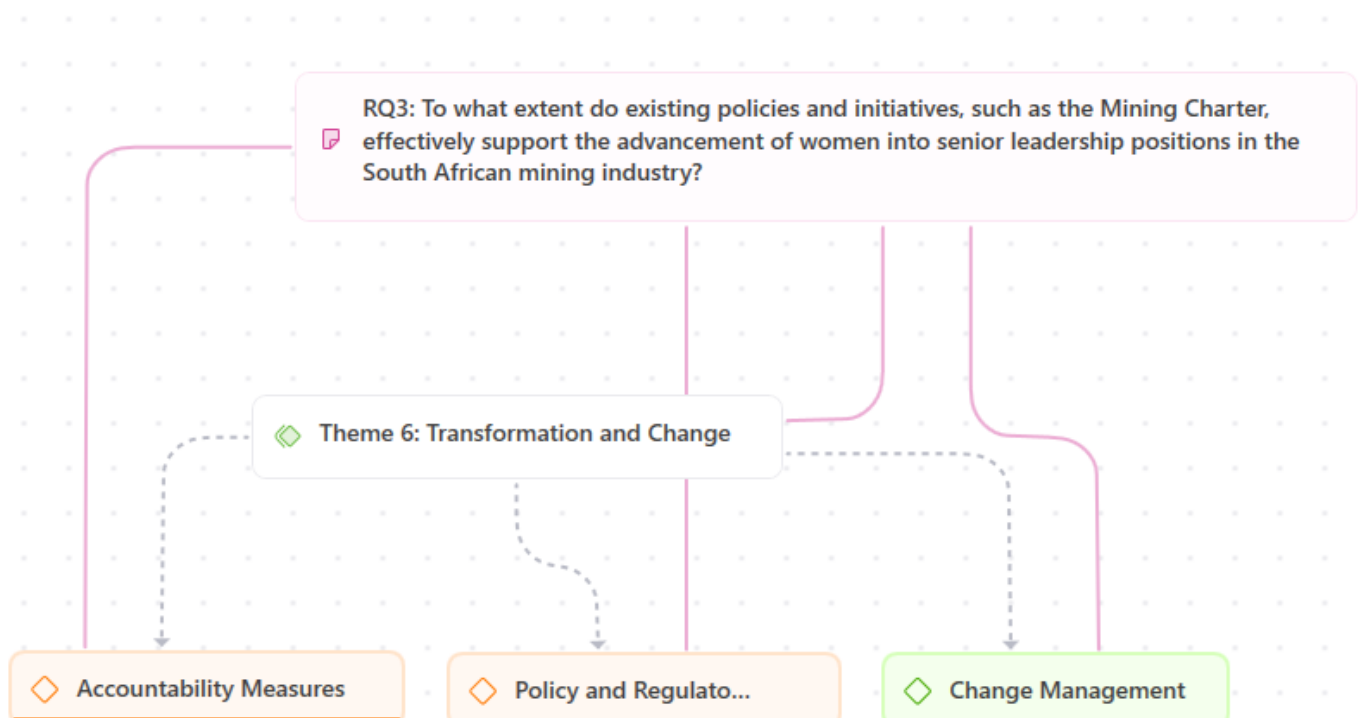
3. "There is still an old-school mindset that physical presence equals productivity." (Participant 6)
4. "Technology has made work more flexible, but expectations have not changed: now we are just expected to be available all the time." (Participant 7)
5. "Companies say that they support flexibility, but in reality, those who take it are seen as not fully committed." (Participant 10)

5.4.3. Research Question 3 Findings

RQ3: To what extent do existing policies and initiatives, such as the Mining Charter, effectively support the advancement of women into senior leadership positions in the South African mining industry?

RQ3 (Effectiveness of policies and initiatives) was addressed under the Transformation and Change theme. The impact of the Mining Charter and other gender inclusion policies were discussed their impact as well in seeking to balance historical gender imbalances are captured under this theme. This theme covers both successes and limitations of existing policies while identifies the implementation gap, presents the unintended consequence-tokenism in gender appointments. Figure 8 below shows how the three identified sub-themes under Theme 6 which is linked to RQ3.

Figure 8: Themes linked to RQ3.



Theme 6: Transformation and Change

The changes in the South African mining industry support women's development of leadership but how effective remains debated. While policies, such as the Mining Charter, make it compulsory for the industry to ensure gender diversity in their workforce, conditions monitored under implementation and accountability have a weak handle, allowing slow movement and minimal structural change. Many companies see diversity initiatives as a box to be ticked for compliance rather than betting on real transformation regarding gender commitments since the change will end great over long periods. This theme appeared 112 times across the interviews. Table 12 in Annexure C shows the codes link to the sub-themes and ultimately the themes.

In most instances, it is changing management that can realize necessary changes in the workplace over and above those implied by the policies, where the primary obstacles include the resistance to change and the inertia and deeply embedded cultures within organizations. A supportive organizational context, rather than just leadership and mentoring activities that are not adequately resourced to deliver real changes at the workplace, will not work. Policy implementation is not only effective because of the regulatory frameworks but when accountability is put in place to monitor progress while driving and sustaining change that quickens the provision of equal opportunities for women to rise and thrive in leadership roles within the mining sector.

Change Management

Failure to change in the mining sector upholds male leadership structures where top male leaders have the loyalty of preferring familiar networks in the leadership ethos rather than the diversified talent base. The process hinders progress and lends credibility to the archaic idea of women not fitting into leadership spaces. The journey to access leadership spaces, which is layered with no access to networks of women leaders as the first generation, and even a degree of social exclusion, increases the challenge to attain membership in leadership circles. Consequently, this journey, with added layers of exhaustion from wrestling with these barriers, some of which surface the underground of individual career paths, requires questioning. Unless there are efforts to challenge implicit biases and promote access and inclusivity proactively, meaningful transformation will continue to be elusive.

Participant Quotes on Change Management:

1. "People move with what they are comfortable with... If you look at that level, it is also the older people. Maybe they move with the mentality that women belong in the kitchen." (Participant 2)
2. "When you come in with a team with which you have worked for 20 years and continue to work with the same people, you are not learning anything. The industry does not learn anything because it is not injecting new energy." (Participant 2)
3. "Majority of us don't have aunts who have been there before us. We are the first generation." (Participant 6)
4. "We get to a point where we say, 'I wish I could stay home, and someone takes care of me.' That comes from a place of exhaustion." (Participant 6)
5. "Women are participating in leadership roles, but they are not part of the social aspect of things outside of the organisation. This makes it difficult for them to feel a sense of belonging." (Participant 17)

Accountability Measures

Despite policies promoting gender inclusion in mining, progress remains slow, with minimal increases in women's workplace participation. Many companies seem to have very ambitious targets, but they hardly achieve them, showing the gap between commitment and actual implementation. The Mining Charter has targets, but they are performance targets easily manipulated without enforcing real structural change. Often it is very difficult for women who are appointed to leadership roles for quota reasons to have the resources and support to succeed. Decades of rhetoric on equity without tangible progress are worrying about the strength of mechanisms to hold people accountable for meaningful and lasting transformation.

Participant Quotes on Accountability Measures:

1. "If you look at the percentage increase in the participation of women in the workplace, it is just under 2% over the last three years." (Participant 3)
2. "Company A has set a target of 30% representation by 2025. We are in 2025 and sitting at 18%." (Participant 3)
3. "The charter gives targets, but they are easy to manipulate without actual structural change." (Participant 5)

4. "Women are often given positions for the sake of numbers but are not empowered with resources and support structures." (Participant 5)
5. "We are still talking about the same equity issues after 25 years in a democratic society. Why?" (Participant 7)

Policy and Regulatory Issues

Policies like the Mining Charter have improved women's participation in the industry but have not been well implemented and enforced. The presence of other policies on employment equity creates a situation where the appointment of women is usually compliance-based and not substantive. There are no sanctions for failure to comply, so organizations achieve the targets at the minimum level and do not develop cultures that allow them to retain female talent in management. Without an overhaul of the structural configurations meant well by the policy efforts-taking power continues to be with the gatekeepers-there is no change moved at a snail's pace.

Participant Quotes:

1. "If they did not put it in place, you would not see females in the industry like you are seeing now. But the execution has been poor, and the industry has had to overcompensate." (Participant 8)
2. "The policy is there, but it is just about putting names on paper. The real authority is not given." (Participant 6)
3. "Employment equity policies are in place, but without enforcement, they are ineffective. There are no real consequences for failing to meet them." (Participant 3)
4. "The mining charter sets targets, but they are just numbers. If you are only chasing targets, then those women don't really stay because the culture does not support their participation." (Participant 17)
5. "People will do the bare minimum to make it look like there is change, but the gatekeepers remain the same." (Participant 3)

Implementation approaches: Insights for Future Frameworks

Effectiveness of gender mainstreaming in mining lies in the extent to which companies prioritize real inclusion rather than hitting only the target of diversity. Policies create

opportunities but, unless the workplace culture ensures continuous support towards women for sustained participation, it leads to high turnover. Exclusion from meetings and from informal networks perpetually bar access to leadership positions, thereby limiting the influence of women on decision-making structures. Many women are promoted to senior levels without the empowerment and support that they need to succeed. The future frameworks have to be about more than just numbers but take fostering inclusive environments, which aid in realizing actual leadership participation by women to the next level. Table 13 in Annexure C shows the codes link to the sub-themes and ultimately the themes.

Participant Quotes on Implementation Approaches:

1. "Are we chasing targets, or are we chasing real participation of women within the boardroom?" (Participant 17)
2. "If you are chasing targets, then those women don't really stay because the culture does not support the participation of women." (Participant 17)
3. "We talk about environmental factors, and you find that meetings are held exclusively, with certain individuals not invited." (Participant 7)
4. "There are informal networks that prevent women from accessing higher positions in the industry." (Participant 13)
5. "Women are put in positions, but they are not truly empowered to exist in those positions." (Participant 5)

5.5. Conclusion

Women in the South African Mining industry continue to experience systemic barriers with lagging enforcement of policies and cultural biases. From being excluded in decision-making, tokenistic appointments, and ambiguous limits of authority over decisions. Their career advancement has been impeded by the phenomena of informal networks exclusion. Not only is there double race and gender discrimination faced by the black women, but also the young diversity-widened bias restricted opportunity even further. There is still an issue in the responsibility for care, especially the promotion of care responsibility for women's career, and the inflexibility of the workplace also gives many problems.

Policies, such as the Mining Charter, have weaknesses in that they are not enforced- therefore, companies can get away with merely having their gender targets "met," but with no actual bottom-up change to effect poor retention and disempowerment. Old-boy male-dominated company cultures revolve around the change issues within management networks. True change though begins by moving beyond just the compliance of laws, thereby removing the institutional dynamics keeping women out of leadership.

Table 3 below summarises the key findings organised by research questions and their corresponding themes:

Table 3: Key Findings per Research Question

Research Question	Themes	Key Findings
RQ1: What are the organisational barriers and biases that hinder women's progression into senior leadership roles within the South African mining sector?	<ul style="list-style-type: none"> • Systemic and Structural Barriers (Organisational Barriers and Industry-Specific Challenges) • Career Development and Progression • Workplace Dynamics and Culture 	<ul style="list-style-type: none"> • Organisations maintain exclusive cultures that privilege existing male networks, creating hostile environments for women. • Career growth is constrained by artificial advancement limits and exclusion from development opportunities. • Women often lack access to the mentoring and sponsorship essential for advancement. • Informal male networks serve as crucial channels for information sharing and decision-making, excluding women from important conversations. • Physical infrastructure and workplace design often do not meet the needs of women.

<p>RQ2: How do cultural and social norms within the South African mining industry influence the career progression of women into senior leadership roles?</p>	<ul style="list-style-type: none"> • Discrimination and Bias • Work-Life Integration 	<ul style="list-style-type: none"> • Women face multiple forms of bias, including gender, age, and racial discrimination. • Women are evaluated by different standards, assertiveness labelled 'aggression'. • Women face conflicting societal expectations regarding their domestic and professional roles. • The burden of caregiving responsibilities falls disproportionately on women. • Inflexible workplace structures force women to make difficult trade-offs between career and family
<p>RQ3: To what extent do existing policies and initiatives, such as the mining charter, effectively support the advancement of women into senior leadership positions in the South African mining industry?</p>	<ul style="list-style-type: none"> • Transformation and Change (Change Management, Accountability Measures and Policy and Regulatory Issues) • Systemic and Structural Barriers 	<ul style="list-style-type: none"> • Policy implementation tends to be shallow, prioritising numerical compliance over meaningful change. • Women receive promotions without adequate support structures, undermining their success. • Progress is extremely slow, with the representation increasing by less than 2% over three years. • Companies typically meet minimum requirements without cultivating genuine inclusivity. • Lack of accountability and consequences for noncompliance allows

		superficial transformation efforts to persist
--	--	--

The findings reveal that Implementation approaches: Insights for Future Frameworks seeks to address the challenges that were identified across the studies research question. These findings provide valuable direction for recommendations and framework development. This calls for more proactive, rather than reactive; structural, rather than superficial intervention; and collaborative strategies that involve both women and men in the transformation process.

These findings will be interpreted in the next chapter through relevant theoretical frameworks to analyse their implications for theory, policy, and practice in the mining industry.

6. Chapter 6: Discussion of Results

6.1. Introduction

This chapter interprets the results extracted from the data presented in Chapter 5 in view of the already available literature assessed in Chapter 2. It probes if, and to what extent, results support, extend, or challenge the existing theories and frameworks regarding gender inequality in leadership, organizational barriers, and policy effectiveness. Results are presented based on the research questions and grounded in theoretical perspectives, such as Role Congruity Theory, Institutional Theory, and Human Capital Theory, keeping the discussion within broader discourse on gender transformation in the South African mining industry.

6.2. Discussions on Research Question 1

What are the organisational barriers and biases that hinder women's progression into senior leadership roles within the South African mining sector?

Systemic and structural barriers (Theme 1), which is a under RQ1, in the South African mining sector act as great obstacles for females who would like to progress into senior leadership. This is because organizational resistance and industry-specific challenges contribute to the system exclusion of women in leadership roles (Zucker 1987).

Career Development and Progression (Theme 2), a theme under RQ1, indicates that women in the mining sector still face ongoing systemic barriers for promotion to decision-making positions and are confined to junior positions despite the existence of policies that support gender inclusivity (Sesele et al., 2021; Mashaba & Botha, 2023; Setkute & Dibb, 2022). Disparities in remuneration and access to career development programs remain prevalent, exacerbating the challenges women face in progressing beyond entry-level positions (Sesele et al., 2021; Buss et al., 2024).

Mining has been a typical male-dominated industry with long-practiced cultural behaviour, which varies according to the experiences of different groups within the workplace. Deeply entrenched customs and power relations, especially disadvantaging women, determine their daily interactions and career advancement opportunities (Wang et al., 2019; Makhutla, Naidoo & Rugbeer, 2021; Bangani & Vyas-Doorgapersad, 2020; Posel & Casale, 2019; Hanyane & Ahiante, 2022). The work environment, comprising informal

networks, institutional practices, and leadership dynamics, create challenges for the career progression of women. Thus Workplace Dynamics and Culture (Theme 4) was developed as a theme which addresses RQ 1.

6.2.1 Analysis of Findings

The findings reveal a complex web of organizational barriers that systematically limit women's advancement to leadership positions in South Africa's mining sector. Three major themes emerged in relation to this question: Systemic and Structural Barriers, Career Development and Progression, and Workplace Dynamics and Culture.

At the organisational level, the persistence of exclusive cultures and "boys' club" mentalities creates environments where women are formally included but functionally marginalised. Several female participants shared this experience. Participant 19, for instance, highlighted how exclusion from informal social networks hinders women's ability to influence decision-making:

"Because you don't drink with them. You don't golf with them. You don't go hunting with them. So how do you then even influence decision-making if you are not part of the pack?"

his sentiment was further confirmed by HR professionals, Participant 1 and Participant 13. Participant 1 explained how strategic decisions are often made in male-dominated social settings, effectively excluding women from critical discussions:

"... you have social clubs, dinners, the golfs that we play, where we have all these relationships that we build. Business ends up being about relationships. At times, women, because of society, battle to break into those groups. Social engagements help you get close to people, you know people better, and decisions are made on the golf course and the braai stand and stuff. And then when you arrive on Monday, well, the decision is done. People have aligned. Yeah. When you come out, like, you're the lone voice."

Participant 7, a male participant, also acknowledged that these exclusionary practices persist in the mining industry. Through investigator triangulation, this issue emerged as one of the most prominent organisational barriers to women's progression into senior leadership roles.

industry-specific challenges further compound these barriers. The physical infrastructure in mining is predominantly designed for men, and remote work locations, combined with deeply entrenched perceptions of mining as "men's work," reinforce the belief that women are unsuitable for leadership roles in the sector.

Interestingly, two female participants (Participants 6 and 16) argued that mining should remain male-dominated due to its physical demands, which they believe women cannot fully meet. Participant 16 strongly asserted this view:

"It's male dominated because it should be male dominated.... There are lots of women who work in the plant maintenance, um, or in the engineering maintenance. They physically cannot pick up the spanners or the tools to do the work. Okay. But they are there. Why are they there? Because they're women."

In contrast, some female participants with over two decades of experience in mining acknowledged that, while progress has been slow, working conditions for women have improved. One participant reflected on these changes:

"However, we're certainly not where we used to be. Um, basic things like bathrooms for females were not available. You would find in three blocks of buildings, there's one toilet on the other side for females, and you would have to walk all the way to that side to access female, uh, bathrooms. Things like overalls for females were not available. A lot of things were not available for females, which are available today."

Similarly, Participant 18, who has over 30 years of experience in the sector, acknowledged that mining remains a male-dominated industry, despite some improvements.

Career advancement barriers in the South African mining sector stem from systemic challenges that prevent women from reaching their full leadership potential. Women are often placed in senior roles without the necessary experience or support, setting them up for failure in an environment that remains uncondusive to their success. This challenge was highlighted by both HR professionals and female participants.

Participant 2 described a phenomenon known as "career clipping", where women's careers are deliberately constrained before they can reach their full potential:

"You will not find someone at that calibre... the rest have been clipped before they can even reach their potential."

This suggests that, while women may be appointed to leadership positions, they are often not given the necessary support or fast-tracked in the same way as their male colleagues, leaving them disadvantaged in their progression.

From a human resources perspective, Participant 1 acknowledged that women do receive training, but emphasised that skills and capacity alone are not enough. He pointed out that leadership exposure is critical, yet this remains limited due to exclusion from informal networks, often referred to as the "Old Boys' Club."

Participant 9, however, provided a contrasting view, highlighting that intentional efforts to build a strong female talent pipeline in his organisation have significantly increased female representation in engineering leadership. He noted that having more women in senior roles challenges stereotypes, making recruitment decisions more merit-based rather than compliance-driven.

"Now, when we do interviews, you find the shortlist has four women and two men. Ten years ago, you had one woman and seven men, and she was overshadowed. But now, because women are fairly represented, you actually don't think about gender anymore—you pick the best candidate."

Furthermore, Participant 9 stated that in his organisation, the underrepresentation of women in senior engineering leadership roles is no longer an issue, demonstrating that some mining houses have successfully overcome these barriers.

This contrast suggests that while systemic challenges persist in many organisations, deliberate and sustained efforts to develop female leadership pipelines can lead to meaningful change.

Initially, Participant 18 did not explicitly identify any barriers, stating:

"I don't think there are formal or, shall I say, official barriers. But if you look at the makeup of the, I shall say, the senior management structures in mining organizations, it's just logical to arrive at the conclusion that there are some, or shall I say, barriers. And I think

the challenge is to identify what are they. Are they physical? Are they organizational? Is it mental?"

This response highlights the subtle and often unacknowledged nature of the barriers women face in advancing to senior leadership in mining. While formal policies may not explicitly exclude women, the lack of representation in senior roles suggests underlying obstacles. His uncertainty about whether these barriers are physical, organisational, or psychological reinforces the complexity of gender dynamics in the industry and underscores the importance of this study in identifying and addressing these challenges.

6.2.2 Integration with Literature

The results of this study largely confirm, and sometimes challenge established theoretical frameworks and empirical findings about gender barriers in leadership. The exclusionary mechanisms and informal networks sensed by respondents reaffirm the stance of the Institutional Theory as raised by Zucker (1987) and Meyer and Rowan (1977) which argued that male dominance in organizational structure continues through self-perpetuation based on long-standing norms against change through government intervention. As Participant 17 stated:

"Most leadership positions are filled through networking. If you are not part of the boy's club, you have no chance."

In line with The Old Boys' Club studies (Cullen & Perez-Truglia, 2019; Michelman, Price & Zimmerman, 2021), which reveals male-dominated networks operating as informal gatekeeping mechanisms of access to leadership positions. Bangani & Vyas-Doorgapersad (2020) argue that such networks make way for performative gender inclusion, meaning the presence of women within organizations but barring them from important decision-making processes; a view that was expressed by Participant 6:

"You will make signatures. You will sign. You will be the accounting officer. But you will not have authority."

These insights reinforce Institutional Theory's assertion that token compliance does not disrupt entrenched power structures unless cultural and normative shifts occur (DiMaggio & Powell, 1983; Zucker, 1987).

These insights reinforce Institutional Theory's claim that superficial compliance fails to alter established power dynamics unless cultural and normative transformations take place (DiMaggio & Powell, 1983; Zucker, 1987).

The research further corroborates the Glass Ceiling Theory (Cotter et al., 2001; Espinosa & Ferreira, 2022), which delineates the unseen yet systematic obstacles hindering women from attaining senior leadership positions despite their qualifications. Participant 2's experience of serving in a leadership capacity for two years, only to have a less experienced male colleague appointed, illustrates the glass ceiling phenomenon.

This is institutional prejudice more than it is individual qualifications, supporting the importance of gender-focused leadership development programs (Eshete & Birbirssa, 2024; Kumar, 2019).

The outcome is also evidence of the Labyrinth Metaphor that women go through hard times in different professional stages instead of one insurmountable barrier; rather numerous and substantial barriers delay women amidst professional hierarchies (Carli & Eagly, 2016; Vaz et al., 2023). The opinion corresponds to Participant 9, who regularly describes women in mining facing career advancement blocks due to fragmentation, lack of networking, and insufficient sponsorship.

"The men will be on the mine for much, much longer years than the woman is... the men have 5, 6 years' experience, while she has maybe a year."

This corroborates research on the Leaky Pipeline (Gasser & Shaffer, 2014; Sato et al., 2021), which elucidates the slow attrition of women from professional trajectories due to systematic exclusion, role stereotyping, and work-life conflicts.

Participant 9's organisation has surmounted this obstacle by deliberately targeting female recruitment in early career pathways, a strategy advocated by Strategic Human Resource Management (SHRM) frameworks (Del Carmen Triana et al., 2021; Eshete & Birbirssa, 2024). He observed that as women attained a critical mass in leadership, recruiting decisions shifted from compliance-driven to merit-based.

"Now, when we do interviews, you find the shortlist has four women and two men... you actually don't think about gender anymore, you pick the best candidate."

This counters the pessimist view of institutional inertia and posits that proactive talent pipeline measures can eradicate gender inequities over time (Kumar, 2019).

The study endorses criticisms of superficial adherence to gender policy (Meyer & Rowan, 1977; Bangani & Vyas-Doorgapersad, 2020) while also emphasising instances where gender initiatives are functioning effectively. Participant 8 indicated the effective execution of gender policies inside their organisation.

"In my company, gender policies work. We now have more female managers than ever before, and there is a clear commitment to mentoring programmes."

This corresponds with SHRM research (Del Carmen Triana et al., 2021), indicating that gender diversity initiatives can thrive when organisations transcend compliance-oriented methods to establish mentorship, sponsorship, and systematic advancement avenues (Galdiero et al., 2024).

6.3. Discussions on Research Question 2

How do cultural and social norms within the South African mining industry influence the career progression of women into senior leadership roles?

6.3.1 Analysis of Findings

The findings reveal how deeply embedded cultural and social norms create additional layers of challenge for women pursuing leadership roles in mining. Two themes were particularly relevant to this question: Discrimination and Bias, and Work-Life Integration.

Gender-based discrimination in the South African mining sector is profoundly entrenched in social and cultural practices that persistently obstruct women's progress. These obstacles emerge as stereotyping, double standards, exclusionary behaviours, and work-life limitations, compelling women to navigate intricate and frequently contradictory expectations.

Women in mining often face double standards in leadership assessments, where attributes regarded as strengths in men are perceived unfavourably in women. Assertiveness, decisiveness, and ambition, which are crucial leadership attributes frequently result in women being characterised as confrontational or challenging.

Participant 1 observed:

"If a man is assertive, he is seen as strong. If a woman is assertive, she is labelled aggressive."

This enduring double bind establishes an untenable balancing act for women. They are required to demonstrate leadership skills to advance yet are penalised for manifesting those very traits. These biases perpetuate traditional notions that women ought to be nurturing and accommodating, so weakening their credibility as leaders.

In addition to gender discrimination, Black women encounter further obstacles stemming from racial biases, leading to a compounded disadvantage. Participant 7 articulated this fact, emphasising how race introduces an additional dimension of exclusion:

"These things have happened not just to women, but to certain racial groups. So, if you are a certain race, we're not even getting into the fact that you are a female. You have a double jeopardy if you are a certain race."

This comment underscores intersectionality, illustrating how Black women must manoeuvre through both gendered and racialised demands in leadership roles. Their experiences are influenced not only by exclusion from male-dominated networks but also by systemic hiring and promotional biases that restrict chances for Black professionals.

A profoundly ingrained culture of sexualisation and harassment exacerbates the alienation of women in mining environments. Women are frequently diminished to their physical appearance rather than their professional competencies, and those who confront unacceptable conduct encounter career-detrimental stigmas.

As Participant 19 explained:

"And if you challenge it, as I said, male-dominated industry. You're either difficult, you're emotional, you'll be, you know, perpetuated or have a perception built on you. Negatively so."

The normalization of harassment makes many female employees remain silent regarding harassment for fears of any professional consequences, therefore continuing the rates of male supremacy in the workplace cultures.

In addition to the barriers mentioned, age discrimination further amplifies the careers of women, especially where combined with gender biases. For young females, this often reads as a deficiency of the required experience to hold leadership positions, while in the men equivalent positions are found to prove themselves.

Participant 14, a coloured female HR professional, highlighted this contradiction:

"Oftentimes, my age has been an issue. At my previous employer, I was told I was too young for an HR manager position. However, I was then reporting to somebody younger than me who had less mining experience than me, so it was okay for him, but not okay for me."

This proves that more stringent experience criteria are required of women than men to qualify for leadership positions when they have equal or better industry knowledge than their male counterparts. This was also supported by Participant 7, an HR professional who has witnessed this type of unrealistic requirements when appointing female leaders.

In terms of work-life integration, societal norms regarding gender roles in domestic chores further limit the careers of women than males. Women involved in mining typically face leadership aspirations that will require reconciliation with their nurturing responsibilities because the social conventions place an unequal burden on them to take care of the home duties. Participant 5 shares her experiences:

"You will need to decide which one is your glass ball and which ball you are going to let fall. And more often than not, that's why it's easier for women if they are divorced or without kids."

It means that often women have to give up career growth because of the family obligations, which does not happen to males under the same equal pressure to do the same compromise.

Participant 14 further noted how maternity leave is seen as a career pause, whereas fatherhood has little impact on male career trajectories.

"Maternity leave often seen as a 'career pause' while parenthood for men is treated as a 'minor event'." This sentiment was shared by the three types of participants groups.

The family demands on female leaders contribute to the "leaky pipeline." Women start their careers in technical and leadership roles but gradually move into non-core positions due to a fairly hostile corporate culture and work-family issues. Participant 15 described how maternity leave becomes a career setback, making it difficult for women to return to demanding production roles:

"As women, we leave production because we have to go on maternity leave. And when we come back, it doesn't feel the same. You've been home, nurturing your baby, and now you have to detach from that and go back into a harsh mining environment. It becomes a scary transition."

She asserts that this transition pushes many women into administrative, support, or project implementation roles-marketing, curbing their visibility for advancement into the leadership trajectory and ultimately to senior leadership.

6.3.2 Integration with Literature

The Role Congruity Theory (Eagly & Karau, 2002) posits that women encounter a discord between cultural expectations of femininity and leadership characteristics, including assertiveness and authority. The study's results robustly endorse this idea, especially with the double standards women face in leadership assessments.

As Participant 1 noted:

"If a man is assertive, he is seen as strong. If a woman is assertive, she is labelled aggressive."

This validates Del Carmen Triana et al.'s (2023) assertion that women encounter both descriptive and injunctive bias; they are viewed as deficient in leadership qualities (descriptive bias) and are penalised for demonstrating such attributes (injunctive bias). Moreover, Participant 19's exasperation with the necessity to perpetually validate her capabilities corroborates the findings of Barkhuizen et al. (2022) concerning the elevated performance expectations imposed on women in mining compared to their male counterparts.

However, certain findings augment Role Congruity Theory by emphasising the additional layer of discrimination encountered by Black women. This corresponds with the findings

of Bangani & Vyas-Doorgapersad (2020), which contend that race and gender cross to form compounded obstacles in male-dominated sectors.

Institutional Theory (Zucker, 1987; Meyer & Rowan, 1977) posits that male-dominated systems sustain themselves by entrenched norms and informal power networks, hindering women's progression in leadership roles despite the existence of statutory gender legislation. The results are highly consistent with this theory, especially for the "Old Boys' Club" mentality in mining.

As Participant 17 put it:

"Most leadership positions are filled through networking. If you are not part of the boy's club, you have no chance."

This corroborates the results of Aksom & Tymchenko (2020) that institutional resistance to gender diversity in leadership is propelled by coercive, mimetic, and normative factors, rendering change sluggish and challenging.

Moreover, Participant 19's experience of sexualisation in the workplace further substantiates Institutional Theory's assertion that organisational norms exhibit resistance to change:

"You still walk around in the industry or in the mine where men, my colleagues, openly sexualise women. Their colleagues. They openly still sexualise women." This corresponds with the findings of Benya (2018) and Barkhuizen et al. (2022), which indicate that mining environments perpetuate male domination through informal cultural norms that render women undesirable, irrespective of governmental measures.

Nonetheless, the results contest the presumption of Institutional Theory that change is invariably gradual. Participant 9 noted that in several organisations, deliberate initiatives to assist women in engineering have augmented female participation in leadership, demonstrating the efficacy of focused diversity interventions. This indicates that although institutional obstacles remain, proactive organisational measures might expedite gender change (Del Carmen Triana et al., 2021)

Human Capital Theory (Becker, 1964; Deming, 2022) posits that persons who invest in education and skills are likely to achieve job advancement and increased incomes. Nonetheless, the data indicate that even when women possess same or higher qualifications, they encounter systemic obstacles that impede job progression.

Furthermore, Participant 1, an HR professional, affirmed that despite women undergoing training, they are denied leadership exposure owing to the "Old Boys' Club."

"Women are trained, but skills and capacity are not enough. Women need leadership exposure, but this does not happen due to the Old Boys' Club."

This supports findings by Bangani & Vyas-Doorgapersad (2020) that training alone is insufficient for career advancement if women are excluded from leadership networks.

However, the findings also present a contradiction to the traditional Human Capital Theory. Participant 9 highlighted that in some companies, deliberate efforts to build a strong female engineering pipeline have resulted in improved representation in leadership. This aligns with Strategic Human Resource Management (SHRM) frameworks (Del Carmen Triana et al., 2021), which argue that proactive gender diversity strategies can break institutional barriers.

6.4. Discussions on Research Question 3

To what extent do existing policies and initiatives, such as the Mining Charter, effectively support the advancement of women into senior leadership positions in the South African mining industry?

6.4.1. Analysis of Findings

The findings reveal a significant gap between policy intentions and practical outcomes in promoting women's leadership advancement in mining. Two components were particularly relevant to this question: Theme 6: Transformation and Change and the Policy and Regulatory Issues

The Mining Charter and analogous programs have augmented the numerical representation of women but have predominantly fallen short of engendering substantial reform. Participant 17 said, *"If one pursues targets, women tend not to remain, as the*

culture does not endorse their participation." This underscores that strategies emphasising numerical representation, without tackling fundamental cultural obstacles, result in superficial progress rather than genuine inclusion.

The gradual rate of change which is evidenced by a representation increase of under 2% over three years, as noted by Participant 3, suggests that existing accountability measures are inadequate. Organisations often meet basic standards without fostering authentic inclusivity, as Participant 3 observed: *"Gatekeepers perform only the minimum necessary to fabricate an appearance of change, yet true transformation is absent."*

Change management encounters substantial obstacles due to ingrained attitudes and opposition from entrenched power structures. Participant 2 noted the impact of generational influences on resistance: *"Individuals tend to align with what they find comfortable..."* At that level, it also includes the elderly population. They may operate on the belief that women are confined to domestic roles. This cultural inertia impedes advancement despite official policy pledges.

6.4.2. Integration with Literature

These findings predominantly validate the literature's critique of policy execution in the mining sector. Bangani and Vyas-Doorgapersad's (2020) assertion that rules have resulted in symbolic compliance rather than meaningful transformation is corroborated by various participant experiences. The appointment of women to leadership roles without granting genuine authority or support, as articulated by Participant 6, *"The policy exists, but it merely involves listing names on paper."* The phrase *"real authority is not granted"* illustrates the superficial adherence that is often criticised in much of the literature.

Nonetheless, the analysis uncovers significant exceptions that contest the uniform ineffectiveness of gender programs. Participant 8 stated that in their organisation, *"gender policies are effective."* We currently have a greater number of female managers than before, and there is a definitive commitment to mentorship programs. This indicates that although the critique in the literature is generally relevant, the efficacy of implementation differs markedly among organisations, with some attaining more substantial advancements than others.

The results about resistance to change correspond with institutional theory viewpoints on how entrenched organisational cultures oppose reform (Meyer & Rowan, 1977; Zucker, 1987). The enduring nature of informal male networks and entrenched power relations, as recounted by participants, demonstrates how institutional inertia perpetuates gender inequities despite formal policy reforms.

The viewpoints of participants regarding the effects of diverse leadership reveal a notable discrepancy with some research. Although McKinsey & Company (2021) and other studies indicate that gender-diverse leadership enhances organisational performance and decision-making, Participant 5 remarked, "*I have not observed any significant impact from increased female representation in leadership.*" The decision-making process has not enhanced, and the organisational culture persists unchanged. This indicates that merely augmenting numerical representation, without confronting underlying cultural challenges, may not inherently yield the performance advantages that proponents of diversity frequently assert.

6.5. Conclusion

The results indicate that institutional obstacles, cultural prejudices, and ineffective policy execution persist in hindering women's advancement in leadership within the South African mining industry. Exclusion from informal networks, like the Old Boys' Club, substantiates Institutional Theory (Zucker, 1987), hindering women's access to leadership positions despite formal legislation advocating gender inclusion. Moreover, Role Congruity Theory (Eagly & Karau, 2002) illustrates that women are penalised for exhibiting leadership qualities, establishing double standards that hinder their progression.

Challenges in work-life integration exacerbate the Leaky Pipeline problem (Carli & Eagly, 2016), since numerous women exit technical positions, post-maternity leave due to unsupportive work settings, diminishing their visibility for leadership advancement. Notwithstanding gender policies such as the Mining Charter, genuine transformation remains irregular, with deficiencies in mentorship, sponsorship, and leadership exposure persisting. Nevertheless, several organisations have effectively enhanced female representation via organised talent pipelines and cultural transformations, demonstrating that intentional interventions and responsibility may facilitate significant change. The

report emphasises the necessity for initiatives that extend beyond quotas, concentrating on cultural inclusion, transparent promotion processes, and enhanced enforcement of gender policies to attain authentic parity in mining leadership. A summary of the findings is tabulated in below in Table 4.

Table 4: Analysis of Findings per Research Question

Research Question	Key Findings	Alignment with Literature	Examples from Participants
<p>RQ1: What are the organisational barriers and biases that hinder women's progression into senior leadership roles within the South African mining sector?</p>	<p>Exclusive 'boys' club' cultures sideline women from decision-making.</p> <p>Physical infrastructure and workplace design failing to accommodate women.</p> <p>'Career clipping' and artificial limitations on advancement.</p> <p>Inadequate professional development and leadership pipeline opportunities.</p>	<p>Confirms:</p> <p>Institutional Theory (Zucker, 1987; Meyer & Rowan, 1977): Male-dominated structures perpetuate through institutionalized practices.</p> <p>Glass Ceiling Theory (Dozier, 1988): Invisible barriers prevent equally qualified women from reaching top positions.</p> <p>Bangani & Vyas-Doorgapersad (2020): Token compliance critique.</p> <p>Disputes:</p> <p>Some organisations show effective implementation of gender policies.</p>	<p>"Because you don't drink with them. You don't golf with them. You don't go hunting with them. So how do you then even influence decision-making if you are not part of the pack?" (Participant 19)</p> <p>"You will not find someone at that calibre... the rest have been clipped before they can even reach their potential." (Participant 2)</p> <p>"You will make signatures. You will sign. You will be the accounting officer. But you will not have authority." (Participant 6)</p>

<p>RQ2: How do cultural and social norms within the South African mining industry influence the career progression of women into senior leadership roles?</p>	<p>Double standards in leadership evaluation (assertiveness vs. aggression). Unequal burden of caregiving responsibilities. Maternity leave viewed as a 'career pause' while paternity is a 'minor event'. Women leaving technical roles for non-core functions due to hostile environments.</p>	<p>Confirms: Role Congruity Theory (Eagly & Karau, 2002): Mismatch between femininity and leadership creates prejudice. Galdiero et al. (2024): Work-life balance challenges hinder career progression.</p> <p>Contradicts: Eshete & Birbirssa (2024): Some women report positive mentorship experiences.</p>	<p>"If a man is assertive, he is seen as strong. If a woman is assertive, she is labelled aggressive." (Participant 1)</p> <p>"You will need to decide which one is your glass ball and which ball you are going to let fall." (Participant 5)</p> <p>"My company has introduced flexible working policies, and they accommodate parental responsibilities, which has made leadership more accessible for women." (Participant 10)</p>
---	---	--	--

<p>RQ3: To what extent do existing policies and initiatives, such as the Mining Charter, effectively support the advancement of women into senior leadership positions in the South African mining industry?</p>	<p>Policies increase numerical representation but fail to create substantive change. Slow progress (less than 2% increase over three years). Minimal accountability for non-compliance. Companies satisfy minimum requirements without cultivating inclusion. Resistance from established power structures.</p>	<p>Confirms: Bangani & Vyas-Doorgapersad (2020): Policies lead to token compliance rather than transformation. Institutional resistance to change (Meyer & Rowan, 1977; Zucker, 1987).</p> <p>Contradicts: McKinsey & Company (2021): Some participants see no improvement in decision-making from gender diversity.</p> <p>Disputes: Universal ineffectiveness of gender policies—implementation varies by organisation.</p>	<p>"If you are chasing targets, then those women don't really stay because the culture does not support the participation of women." (Participant 17)</p> <p>"If you look at the percentage increase in the participation of women in the workplace, it is just under 2% over the last three years." (Participant 3)</p> <p>"Gatekeepers do the bare minimum just to create an illusion of change, but real transformation is not happening." (Participant 3)</p>
--	---	---	---

7. Chapter 7: Conclusions and Recommendations

7.1. Introduction

This chapter covers the summaries, limitations, and recommendations determined from the findings of a study on barriers to women progressing into senior leadership roles in the South African mining industry. The research identified systemic organisational challenges, cultural biases, and policy shortcomings that hinder gender transformation despite formal commitments.

The chapter, thus, prescribes specific recommendations for critical stakeholders, articulates the constraints of the study, and expounds future avenues of research. A structured approach, termed the MEKGWE Framework, goes beyond compliance to foster genuine inclusion, creating workplaces that prove suitable for women to climb the ladder in leadership.

7.2. Overview of Research Questions and Core Findings

This study investigated the barriers and challenges affecting women's progression into senior leadership positions in South Africa's mining sector. Through in-depth interviews with 19 female professionals in the industry, the research examined organizational barriers, cultural influences, and policy effectiveness. The findings reveal a complex interplay of structural, cultural, and institutional factors that continue to impede women's advancement despite formal commitments to gender transformation.

7.2.1. Research Question 1

What are the organisational barriers and biases that hinder women's progression into senior leadership roles within the South African mining sector?

Several key organizational barriers that systematically perpetuate the hinderance of the advancing woman in leadership roles in mining were identified in the study. The deeply entrenched "Old Boys' Club" culture maintains an informal exclusive male only environment where critical decisions are made. This exclusion from crucial networks

severely undermines women's ability to influence organizational direction and build the relationships necessary for career advancement.

Findings also indicated the existence of a phenomenon termed "career clipping", where careers are stagnated despite being competent and qualified. Participants also pointed out that even when they are appointed into leadership roles, it just superficial appointments as they have no real authority. Basically, possessing the titles and responsibilities without the concomitant decision-making power of their male counterparts. Physical infrastructures and operational designs of mining environments still represent direct practical barriers to the inclusion of women in the industry.

Career development opportunities and leadership pipelines are inequitable. Women say they have less access to the mentorship, and most critically, the exposure required to ensure the development of leadership capabilities. These barriers form cumulative disadvantage that becomes increasingly challenging to overcome as women attempt to advance to more senior positions.

7.2.2. Research Question 2

How do cultural and social norms within the South African mining industry influence the career progression of women into senior leadership roles?

Cultural and social norms emerged as powerful influences that shape women's experiences and opportunities. The study findings confirm the continued application of double standards in evaluating the behaviour of both men and women. The interpretation of being assertive by male standards is defined as aggressive if applied to women. This disagreement pinpoints the basic incongruence in society's demands regarding womanhood and quality of leadership.

Many participants described facing intersectional challenges, with black women in particular experiencing "double disadvantage" through both racial and gender discrimination. These overlapping forms of bias create complex barriers that standard policy interventions often fail to address adequately.

The unequal distribution of caregiving responsibilities represents another significant cultural barrier. Women continue to shoulder disproportionate family responsibilities, forcing difficult trade-offs between career advancement and personal obligations. Maternity leave is frequently perceived as a "career pause" that puts women behind their

male colleagues, while parenthood for men is treated as a minor life event with minimal professional impact.

7.2.3. Research Question 3

To what extent do existing policies and initiatives, such as the Mining Charter, effectively support the advancement of women into senior leadership positions in the South African mining industry?

The effectiveness of gender transformation policies, such as The Mining Charter, have made provisions toward the promotion of female leadership advancement. Though it increased the numerical representation of women in organizations, such policies largely fell short of creating substantive transformation in organizational practices and cultures. A concerning trend emerged, of surface level of compliance by companies which only meet the minimum requirement without nurturing real inclusivity.

Progress is terribly slow, and it was noted that female representation at the leadership level increased by less than 2% over three years for one specific mining house. This serenely agonizing pace of change indicates not only resistance from strong established power structures but also lacks proper channels of accountability for non-compliance. Most participants talked about the approach as tokenistic with women being appointed to leadership positions without the required support, authority, or inclusion for success.

However, results also revealed striking differences in the effectiveness of implementation among the organizations. There are some mining houses that have made substantial strides because of the mentorship programs, the flexible work rules, and the actual commitment made in advancing women. These anomalies establish that while both structural and cultural barriers are significant, organisations that are committed to transformation substantively rather than symbolically can indeed create a more inclusive environment for women's leadership advancement.

7.2.4. Synthesised Findings

A more comprehensive analysis of the three research questions brings to light critical connections between organizational barriers, cultural attitudes, and policy efficacy. These very same carriers form a reinforcing network that maintains gender disparities in mining leadership despite formal commitments to transformation.

Organizations reflect and, in turn, are shaped by general societal beliefs and principles regarding female roles and capacities. Such cultural presuppositions further impact policy use and interpretation inside organizations. When policies concentrate solely on numbers, without addressing underlying cultural and structural barriers, they only succeed in making the organizations comply at the superficial level, not the substantive one.

It thus proves that established theories like Role Congruity Theory, Institutional Theory, and Glass Ceiling Theory are still applicable toward explaining the experiences of women in mining leadership. Different organizational responses, however, suggest that future refinement of these frameworks is required to reflect contextual disparities within the South African mining sector.

These findings thus become very useful foundations in developing interventions that are more effective for the continued underrepresentation of women in mining leadership. They also set the change tone by shifting away from symbolic policies and practices towards transformation to include real inclusive organizational cultures and practices.

7.3. Recommendations

The research recommendations, in the light of the above, are critical to remove the barriers that deter the South African mining sector from experiencing women's progression into senior leadership. Therefore, it targets mining companies, industry bodies, government policymakers, women in mining, and academic institutions.

7.3.1. Mining Houses

Cultural audits should be the first step to build a more inclusive working space and involve a revision of the organizational culture, to identify exclusion practices and informal power structures that unfairly marginalize women. Zero-tolerance policies against gender-based discrimination and harassment should promote a safe working environment with clear reporting mechanisms. Dismantling the 'Old Boys club' would also require changes in the way networking and informal relationships are built, changes in the visibility of decision-making processes that ought to be transparent and inclusive instead of belonging to an exclusivist group.

Redesigning career development systems is essential for equitable leadership progression. Establishing structured sponsorship programs, where senior leaders actively advocate for high-potential women, will enhance leadership pathways. Targeted leadership development programs must address industry-specific challenges that women face, complemented by formalised succession planning that ensures diverse candidates are considered for senior positions. Additionally, job rotation programs should provide women with exposure to traditionally male-dominated operational areas, equipping them with the necessary skills and experience for leadership roles.

To support work-life integration, companies must implement flexible work arrangements that accommodate caregiving responsibilities without penalising career progression. Revising parental leave policies to promote shared responsibilities between men and women can help reduce the stigma associated with maternity leave. Where feasible, on-site childcare facilities should be provided at mine locations, and structured return-to-work programs must be developed to assist women in seamlessly reintegrating after maternity leave or career breaks.

Improving accountability mechanisms remains crucial for continuous gender transformation. Mining houses should set ambitious goals for gender inclusion that exceed the minimum requirements with regulatory frameworks, such as the Mining Charter. Executive remuneration should be directly related to demonstrable progress on issues of diversity and inclusion. Pay equity audit should be conducted regularly to identify and remove gender-based wage disparities. Ultimately, transparent reports regarding gender representation at all levels of leadership would impose accountability and allow a cross-industry comparison.

7.3.2. Industry Bodies and Regulators

Driving systemic change will require that industry bodies and regulators must play a stronger role in policy implementation. Revising the Mining Charter to go beyond mere numerical targets by incorporating substantive measures of inclusion, along with making the enforcement mechanism impose penalties, will help ensure more meaningful transformation. Additionally, establishing industry-wide standards to track and report progress on gender inclusion will enhance accountability and drive sustained change. In

addition to regulatory penalties, the regulators should introduce incentives for companies that show real best practices in gender transformation.

Promoting industry-wide collaboration can generate increased opportunities for women in mining. A cross-organizational mentoring program should be instituted to broaden access to mentorship beyond individual entities. Moreover, specialised industry forums should be established to promote the sharing of effective gender inclusion strategies. Establishing common infrastructure requirements will facilitate the design of mining settings to support varied workforces. Moreover, financing collaborative research on effective gender transition initiatives can produce data-driven methods to expedite change.

Organizations in the mining industry should collaborate with educational institutions so attract a large number of female students choose mining-related subjects, this will enhance talent pipeline. Scholarships for women in mining can remove financial barriers for entry into the industry. Lastly, implementing industry-wide leadership development initiatives tailored for women will fortify the talent pipeline and improve gender diversity in senior positions.

7.3.3. For Women in Mining

Strategic networks among women in mining can help improve their professional advancement. Engaging in organizations of women in mining can create channels for shared experiences and advocacy. Improving cross-industry mentorship links, where appropriate, will provide more extensive career support, albeit with informal peer support groups in addressing the common challenges at the workplace (Banwell, Kerr, & Stirling, 2020) Moreover, cultivating strategic alliances with both male and female executives can provide access to significant funding and leadership opportunities.

To foster their personal advancement, women should look for leadership training opportunities that are tailored to their specific requirements for career growth, obtaining knowledge in operational fields that used to be male dominated. Developing an authentic

leadership style that aligns with both personal values and organisational expectations can enhance professional success. In addition, keeping objective recording of achievements can help offset potential bias mechanisms in performance appraisal and promotion decisions.

Women in leadership, just as their male counterparts, have a responsibility to drive systemic change. Leading and being visible in the mentorship of emerging female talent into the mining sector is a means to ensure there is a sustained pipeline of future female leaders. Personal stories, advocating structural barriers in light of the experiences of women, bring awareness and further encourage change. Engaging and spearheading programs and forums in various industries on gender transformation should also support the efforts in advocacy. They should influence other female professionals to build inclusive workplace policies and challenge any practices that exclude others.

7.3.4. For Academic Institutions

Academic institutions will lead the future of gender inclusion in mining by furthering their research mandate. By conducting longitudinal studies of the effects of gender transformation interventions, they will be generating useful data by assessing best practices and challenges (Saunders & Lewis, 2018; Queirós et al., 2017). The development of empirical South African case studies on successful gender inclusion initiatives in mining leadership will allow for localized learning. Researching the intersection of gender with other identity dimensions such as race, socioeconomic background, and disability can further refine policy recommendations. An exploration to justify gender diversity from a business perspective in mining leadership can therefore be done.

Revamping educational programs is crucial to integrate gender diversity into future mining leadership. Evaluating mining education curricula to eliminate gender biases and integrating gender perspectives into engineering and management courses might facilitate the transformation of industry standards. Developing executive education programs centred on inclusive leadership in mining will equip future leaders for transformation. Furthermore, providing work-integrated learning experiences that immerse female students in authentic mining situations will facilitate the connection between school and industry.

Ultimately, promoting information transfer between academics and industry is essential for continuous advancement. Forming research collaborations with mining corporations helps enhance understanding of transformation initiatives. Establishing communities of practice that unite academics and industry experts will foster collaboration on gender inclusion strategies. Facilitating channels for disseminating research outcomes to industry stakeholders will guarantee that research leads to implementable change. Enabling discourse between gender scholars and mining industry executives will reconcile the disparity between theory and practice, fostering significant reform within the sector.

By executing these specific recommendations, stakeholders in the mining sector can transcend compliance-focused strategies to establish authentically inclusive environments where women can flourish and assume leadership roles.

7.4. Proposed Framework

The research findings are synthesized in the MEKGWE (Mobilizing Equity and Knowledge for Gender Workforce Empowerment) Framework and its structured approach to gender transformation gaps that have been identified within and around mining leadership. This is a substantive framework that guides organizations through the labyrinthine process of making real rather than surface change.

Brief Description of the MEKGWE Framework

The MEKGWE (Mobilising Equity and Knowledge for Gender Workforce Empowerment) Framework table offers a thorough strategy for overcoming obstacles to women's progression in mining leadership. The table is structured into six fundamental components, each signifying a pivotal stage of gender transformation:

Mapping (M): The diagnostic framework that evaluates the present condition via organisational audits, leadership pipeline assessment, and recognition of formal and informal obstacles. This component

sets baseline measures for measuring progress.

- Engagement (E): Concentrates on fostering commitment and alliances for transformation by obtaining leadership endorsement, cultivating male allies, and instituting governance frameworks. This component fulfils the essential requirement for transparent support and accountability from organisational leadership.
- Knowledge (K): Focusses on enhancing competencies and frameworks that promote inclusiveness via leadership initiatives, mentorship systems, and policy formulation. This component addresses the recognised deficiency in professional development options for women.
- Growth (G): Delivers focused initiatives to cultivate women leaders via career pathway reconfiguration, succession planning enhancements, and the rectification of experience disparities. This component directly addresses the phenomena of "career clipping" observed in the research.
- Work Environment (E): Focusses on the evolution of physical infrastructure and organisational culture to establish inclusive workplaces. This component addresses data related to exclusionary tactics and physical obstacles in mining sites.
- Evaluation (E): Implements systems for assessing impact, guaranteeing accountability, and enhancing methodologies based on data analysis. This component tackles the essential deficiency in substantial progress monitoring beyond mere numerical representation.

For each component, Table 8 below outlines specific elements, success metrics, potential risks, and mitigation strategies, providing organisations with a practical roadmap for implementation.

Table 5: MEKGWE Framework

Framework Component	Description	Elements	Success Metrics	Potential Risks	Mitigation Strategies
M - Mapping (Diagnostic Assessment of Barriers)	Establish a clear understanding of existing barriers through data-driven diagnostics.	<ul style="list-style-type: none"> - Organisational culture audit - Leadership pipeline analysis - Policy effectiveness evaluation - Informal network mapping - Intersectional analysis (race, age, socio-economic background) 	<ul style="list-style-type: none"> - Comprehensive baseline data - Identified critical barriers - Clear understanding of formal vs. informal power structures 	<ul style="list-style-type: none"> - Surface-level analysis - Resistance to transparency - Failure to identify informal biases 	<ul style="list-style-type: none"> - Use external facilitators - Conduct anonymous surveys - Ensure diverse representation in assessments - Triangulate data from multiple sources
E - Engagement (Building Commitment and Coalitions for Change)	Secure genuine leadership buy-in and create inclusive networks that champion gender transformation.	<ul style="list-style-type: none"> - Leadership commitment training - Male ally development - Cross-company partnerships 	<ul style="list-style-type: none"> - Executive sponsorship secured - Critical mass of advocates - Clear governance structures 	<ul style="list-style-type: none"> - Superficial commitment - Resistance from informal power networks 	<ul style="list-style-type: none"> - Link gender transformation to business outcomes - Integrate gender KPIs into performance evaluations

		<ul style="list-style-type: none"> - Identification of change champions 		<ul style="list-style-type: none"> - Limited engagement beyond leadership 	<ul style="list-style-type: none"> - Establish public progress tracking dashboards - Implement peer accountability mechanisms
<p>K - Knowledge (Building Capabilities for Inclusion)</p>	<p>Equip women with leadership development opportunities and integrate gender-inclusive policies into decision-making.</p>	<ul style="list-style-type: none"> - Leadership development programs - Structured mentorship vs. sponsorship programs - Work-life integration policies - Inclusive decision-making processes - Structured onboarding for new leaders 	<ul style="list-style-type: none"> - Increased representation of women in leadership programs - Higher retention rates post-maternity leave - Higher promotion rates among sponsored women - Stronger perceptions of inclusivity in decision-making 	<ul style="list-style-type: none"> - Training without application - Mentorship without sponsorship - Policy without implementation - Knowledge silos 	<ul style="list-style-type: none"> - Require sponsorship accountability (sponsors must advocate for mentees' promotions) - Use action learning methods to ensure practical application - Implement structured knowledge-sharing platforms

<p>G - Growth (Targeted Leadership Development & Career Progression)</p>	<p>Eliminate career stagnation by ensuring real opportunities for leadership advancement.</p>	<ul style="list-style-type: none"> - Career pathway redesign - Succession planning reform - Experience gap interventions - Stretch assignment access - Leadership shadowing programs 	<ul style="list-style-type: none"> - Increased promotion rates for women - Greater lateral mobility into technical roles - Reduction in time-to-leadership disparity 	<ul style="list-style-type: none"> - Career clipping - Token appointments - Over-preparation requirements - Inadequate exposure to operations 	<ul style="list-style-type: none"> - Implement leadership authority audits to verify real decision-making power - Ensure transparent promotion criteria - Standardise preparation requirements - Introduce structured rotations in technical roles
<p>W - Work Environment (Cultural and Physical Transformation)</p>	<p>Create inclusive workspaces through cultural reform and infrastructure improvements.</p>	<ul style="list-style-type: none"> - Gender-sensitive workplace design - Behavioural standards & microaggression training - Inclusive communication reforms - Workplace culture audits 	<ul style="list-style-type: none"> - Improved environmental accessibility - Increased reporting of behavioural incidents - Enhanced inclusivity metrics in workplace surveys 	<ul style="list-style-type: none"> - Superficial cultural change - Resistance to new behavioural norms - Resource limitations 	<ul style="list-style-type: none"> - Implement mandatory cultural sensitivity training for leaders - Conduct third-party workplace culture audits - Link diversity improvements to executive

					performance appraisals
E - Evaluation (Measuring Impact and Refining Approaches)	Establish robust measurement systems to track progress and ensure continuous improvement.	<ul style="list-style-type: none"> - Progress tracking metrics - Regular assessment cycles - Independent gender audits - Corrective action plans for non-compliance 	<ul style="list-style-type: none"> - Data-driven decision-making improvements - Sustained gender equity progress - Increased public accountability 	<ul style="list-style-type: none"> - Focusing on easy-to-measure metrics - Defensive responses to data - Evaluation without corrective action - Measurement fatigue 	<ul style="list-style-type: none"> - Balance quantitative and qualitative indicators - Foster psychological safety in feedback processes - Link evaluation findings to corrective action plans

7.5. Strengths and Limitations of the Study

This section evaluates the strengths and limitations of the study, providing a balanced perspective on its contributions and areas for improvement.

7.5.1. Strengths of the Study

(a) Real-world insights from industry participants

The study draws from this multi-stakeholder perspective. Views from women holding mid-level to senior as well as HR professionals and top male leaders hence providing a balanced, multi-dimensional perspective on gender dynamics at the workplace. Through their, this study provides a more holistic understanding of how structural and cultural barriers hinder or foster female leadership progression in the male-dominated mining sector.

(b) Strong Theoretical Foundation

This study used of theoretical underpinnings from Role Congruity Theory (Eagly & Karau, 2002), Institutional Theory (Zucker, 1987), and Human Capital Theory articulating gender biases, organizational barriers, and resource accessibility in leadership progression. Theoretical metaphors (Glass Ceiling, Old Boys' Club, Labyrinth, Leaky Pipeline) explain the structures and cultures through which gender relations are organized while the Hofstede Cultural Dimensions concept expounds on the role of power distance and masculinity in workplace gender dynamics. These frameworks enhance the study's academic credibility.

(d) Exploration of the Effectiveness of Policy

A key strength of this study is the review of gender transformation policy, the Mining Charter, without just identifying the barriers that hinder women's progression into senior leadership roles. The response of the participants was mixed, reflecting both the strengths and weaknesses of the policy implementation. The results of this study are extremely important for the policymaker and corporate leader community on the ground to bridge the gap between policy intentions and workplace realities. By directing the spotlight on areas

where policies are weak and poorly enforced, this study provides actionable recommendations towards strengthening policy effectiveness, improving enforcement mechanisms, and reducing tokenism in gender transformation effort.

7.5.2. Limitations of the Study

(a) Limited sample size

While the study had 19 interviewees of differing demographic, career, and mining company backgrounds, this sample size has limitations in achieving very broad-based mining experiences (Vasileiou, Barnett, Thorpe, Young, 2018). Although the diverse backgrounds of participants provided valuable insights, a larger sample could offer a more comprehensive understanding of gender barriers across various mining operations, particularly in different organisational cultures and geographic locations.

Solution for Future Research:

To build onto the finding of this study, future research should enlarge the sample to involve more participants from mining companies representing a broader geography and leadership so that results can be generalized. A mixed-method approach with both a survey of sufficient quantitative strength and qualitative interviews would be beneficial to comparatively assess gender disparities in progressing to leadership and have a larger reach.

(c) Industry-Specific Focus Limits Generalisability

Another limitation of this study is that there is no cross-industry comparison. It only presents findings for the mining sector without checking whether gender barriers are the same in other male-dominated industries like construction, energy, and heavy manufacturing (Creswell & Poth, 2018). Although one participant drew parallels between their experiences in mining and manufacturing, the study did not cater to an in-depth analysis. Mining cultures and operational dynamics are unique, but general structural factors that impede the advancement of women into leadership positions may be widespread among most other sectors. In the absence of such comparisons, the findings are limited to this industry alone. They give very little latitude for generalizing the recommendations beyond the mining sector.

Solution for Future Research:

Future research should consider cross-industry comparative research in male-dominated industries such as construction, energy, and heavy manufacturing. To determine whether or not there are mainly industry-specific barriers to gender and leadership challenges. Learning how other industries have effectively advanced gender diversity can contribute best practices for the mining industry.

(d) Longitudinal Analysis of Gender Transformation in Mining

Limitations

A key limitation of this study is its cross-sectional approach to gender barriers in mining leadership at a specific point in time (Saunders & Lewis, 2018; Queirós et al., 2017). It is therefore becoming difficult to estimate dynamics (positive or negative) within this time gap and without statistical data. Policymakers and mining house may benefit from statistical benchmarks to track how effectively gender equity programs work.

Directions for Future Research

Future research needs to be designed longitudinally, tracking the progress of women growing in leadership over time. Such methodology may provide insights about the sustainability initiatives aimed at advancing the career of female leaders within industry. An opportunity might be given to scrutinize the long-term effects of gender policies, female retention, and career progression compared to their male counterparts. Further, an analysis of leadership representation trends post/gender-focused policy would allow for an empirical test of the mining sector's responsiveness to transformation initiatives.

(e) Limited examination of intersectionality.

A critical limitation of this exploration is the very narrow form of intersectionality, mainly issues of how race, age, or marital and parental status intersect with gender discrimination in leadership within mining. While the study recognizes that black women face double discrimination, it does not offer an in-depth comparative analysis of how issues of racial identity play into career progression against lagging white counterparts. Details of age and marital status rose from within the interviews as part of the basic determinants on which

issues of leadership are highlighted. Younger women, who were part of the research, faced perceptions of being inexperienced. The study did not explore on further discussion of the impacts of women's child-breeding propensity upon her career path, although women did raise the issue of the demands of leading teams with the demands of childcare.

Solution for Future Research

Adopt an intersectional core to examine the way the race, age, marital status, and parent responsibility dimensions influence women's progression into leadership roles. A comparative study with the experiences of black and white women can lead to better evidence of differences in challenges at work. Studying ageism as a barrier indicate whether younger women have any credibility challenge at the workplace, and also analyses how marital status and children make an impact towards a more structured corporate and workplace policy in supporting women with care responsibilities.

7.5.3. Final Summary of Strengths and Limitations

Table 6 below provides a summary of the strengths and limitations of this study and identifies the recommendations for future research to overcome these limitations.

Table 6: Summary of Strengths and Limitations

Category	Strengths	Limitations	Recommendations for Future Research
Data Collection	Captures real-world experiences from industry participants across different demographics and career levels.	Limited sample size, which, while diverse, may not fully represent all mining environments and leadership experiences.	Expand the participant pool across more mining companies and regions and adopt a mixed-methods approach to combine qualitative interviews with large-scale quantitative surveys.

Industry Focus	Provides unique insights into gender barriers in the mining sector, a historically under-researched industry.	No cross-industry comparison to determine if similar gender barriers exist in other male-dominated industries such as construction, energy, or heavy manufacturing.	Conduct comparative research across multiple male-dominated industries to identify common challenges and best practices for gender transformation.
Time Horizon	The cross-sectional design allowed for efficient data gathering within time constraints.	Does not track long-term changes in gender transformation efforts or the career progression of women over time.	Conduct longitudinal studies to track leadership progression, retention rates, and policy impact over multiple years.
Cultural Factors	Explores deep-rooted gender norms and organisational barriers to women's leadership advancement.	Potential response bias, as some participants may have been reluctant to share experiences due to workplace repercussions.	Use anonymous surveys and triangulate findings with HR reports and gender audits to encourage honest responses and validate findings.
Theoretical Framework	Strong grounding in established leadership and gender theories, such as Role Congruity Theory, Institutional Theory, and the Glass Ceiling Effect.	Does not integrate emerging gender theories that account for intersectionality and evolving workplace dynamics.	Continue integrating new gender theories that consider intersectionality, leadership perceptions, and power dynamics in male-dominated industries.
Intersectionality	Recognises the compounded challenges faced by women, particularly black women in mining leadership.	Limited exploration of how race, age, marital status, and parental responsibilities intersect with gender discrimination in leadership.	Conduct comparative studies on how black vs. white women experience leadership challenges, and explore the impact of age, marital status, and caregiving responsibilities on career progression.

7.6. Conclusion

This research sought to explain the inertia of female top leadership under-representation in the South African mining industry despite transformation efforts through legislative frameworks. Although legislations such as the Employment Equity Act and the Mining Charter have established compliance-driven programs, there are still structural, organizational, and cultural barriers hindering women from advancing into leadership roles within the mining industry.

The study discovered and referred to crucial barriers, such as male-dominated leadership criteria traditionally perpetuated by organizational culture inflexibility, unconscious bias within talent development, and exclusive leadership networks. Women remain excluded from decision-making positions due to prevailing cultural expectations and traditional gender roles that continue to influence perceptions of their leadership potential. While mining houses adopt gender change strategies, many of these efforts are only surface-level, concentrating on numerical compliance rather than tackling underlying structural problems.

The study emphasises the necessity of clear succession planning, organised mentorship programs, and more robust accountability systems to guarantee significant change in order to close this gap. The suggested MEKGWE Framework mobilises inclusive leadership development initiatives that go beyond compliance, offering an organised method for attaining gender equity.

In the end, changing industry attitudes, demonstrating leadership commitment, and enforcing policies more strictly are necessary to overcome the organisational and cultural obstacles that prevent women from advancing to positions of leadership in the mining sector. A more inclusive and diverse leadership environment in South Africa's mining industry can be fostered by mining businesses putting the study's recommendations into practice and providing long-term opportunities for women to rise into senior leadership positions.

Reference List

- Acker, J. (2006). Inequality Regimes: gender, class, and race in organizations. *Gender & Society, 20*(4), 441–464. <https://doi.org/10.1177/0891243206289499>
- Adeoye-Olatunde, O. A., & Olenik, N. L. (2021). Research and scholarly methods: Semi-structured interviews. *JACCP JOURNAL OF THE AMERICAN COLLEGE OF CLINICAL PHARMACY, 4*(10), 1358–1367. <https://doi.org/10.1002/jac5.1441>
- Aksom, H., & Tymchenko, I. (2020). How institutional theories explain and fail to explain organizations. *Journal of Organizational Change Management, 33*(7), 1223–1252. <https://doi.org/10.1108/jocm-05-2019-0130>
- Alhazmi, A. A., & Kaufmann, A. (2022). Phenomenological qualitative methods applied to the analysis of Cross-Cultural experience in novel educational social contexts. *Frontiers in Psychology, 13*. <https://doi.org/10.3389/fpsyg.2022.785134>
- Almukhambetova, A., Torrano, D. H., & Nam, A. (2021). Fixing the leaky pipeline for talented women in STEM. *International Journal of Science and Mathematics Education, 21*(1), 305–324. <https://doi.org/10.1007/s10763-021-10239-1>
- Alolayyan, M. N., Alyahya, M. S., & Omari, D. A. (2021). Strategic human resource management practices and human capital development: The role of employee commitment. *Problems and Perspectives in Management, 19*(2), 157–169. [https://doi.org/10.21511/ppm.19\(2\).2021.13](https://doi.org/10.21511/ppm.19(2).2021.13)
- Alqahtani, T. (2020). The status of women in leadership. *Archives of Business Research, 8*(3), 294–299. <https://doi.org/10.14738/abr.83.8004>
- Amenta, E., & Ramsey, K. M. (2009). Institutional theory. In *Handbooks of sociology and social research* (pp. 15–39). https://doi.org/10.1007/978-0-387-68930-2_2
- Anglin, A. H., Courtney, C., & Allison, T. H. (2021). Venturing for others, subject to role expectations? A Role Congruity Theory Approach to Social Venture Crowd

- funding. *Entrepreneurship Theory and Practice*, 46(2), 421–448.
<https://doi.org/10.1177/10422587211024545>
- Anglin, A. H., Kincaid, P. A., Short, J. C., & Allen, D. G. (2022). Role Theory Perspectives: past, present, and future applications of role theories in management research. *Journal of Management*, 48(6), 1469–1502.
<https://doi.org/10.1177/01492063221081442>
- Anglin, A. H., Milanov, H., & Short, J. C. (2022). Religious Expression and Crowdfunded Microfinance Success: Insights from Role Congruity Theory. *Journal of Business Ethics*, 185(2), 397–426. <https://doi.org/10.1007/s10551-022-05191-1>
- Atieno, O. (2009). AN ANALYSIS OF THE STRENGTHS AND LIMITATION OF QUALITATIVE AND QUANTITATIVE RESEARCH PARADIGMS. *Problems of Education in the 21st Century*, 13.
- Bangani, A., & Vyas-Doorgapersad, S. (2020). The implementation of gender equality within the South African Public Service (1994–2019). *Africa's Public Service Delivery and Performance Review*, 8(1). <https://doi.org/10.4102/apsdpr.v8i1.353>
- Bansal, S., Nangia, P., Singh, S., & Cichoń, D. (2024). Where's our share: Agenda for gender representation in mining industry. *Resources Policy*, 90, 104820.
<https://doi.org/10.1016/j.resourpol.2024.104820>
- Banwell, J., Kerr, G., & Stirling, A. (2020). Benefits of a female coach mentorship programme on women coaches' development: an ecological perspective. *Sports Coaching Review*, 10(1), 61–83. <https://doi.org/10.1080/21640629.2020.1764266>
- Barkhuizen, E. N., Masakane, G., & Van Der Sluis, L. E. C. (2022). In search of factors that hinder the career advancement of women to senior leadership positions. *Sa Journal of Industrial Psychology*, 48. <https://doi.org/10.4102/sajip.v48i0.1986>
- Beloskar, V. D., Haldar, A., & Gupta, A. (2024). Gender equality and women's empowerment: A bibliometric review of the literature on SDG 5 through the

management lens. *Journal of Business Research*, 172, 114442.

<https://doi.org/10.1016/j.jbusres.2023.114442>

Benya, A. (2018). Women of the mines: apartheid and post-apartheid lived realities of South African women. *DOAJ (DOAJ: Directory of Open Access Journals)*.

<https://doi.org/10.13128/sdd-23957>

Beyer, M., Els, C., & Rossouw, L. (2023). Investigating the prevalence of gender stereotypes in a South African mine. *African Journal of Employee Relations*, 47.

<https://doi.org/10.25159/2664-3731/13601>

Botha, D. (2016). Women in mining still exploited and sexually harassed. *SA Journal of Human Resource Management*, 15. <https://doi.org/10.4102/sajhrm.v14i1.753>

Botha, D. (2017). Barriers to career advancement of women in mining: A qualitative analysis. *South African Journal of Labour Relations*, 41.

Boyce, C., & Neale, P. (2006). Conducting In-Depth interviews: A Guide for Designing and Conducting In-Depth Interviews for Evaluation input. In *Pathfinder*. Pathfinder International Tool Series, Monitoring and Evaluation-2.

http://www.pathfind.org/site/DocServer/m_e_tool_series_indepth_interviews.pdf?docID=6301

Braun, V., & Clarke, V. (2022). Toward good practice in thematic analysis: Avoiding common problems and becoming a knowing researcher. *International Journal of Transgender Health*, 24(1), 1–6. <https://doi.org/10.1080/26895269.2022.2129597>

Busetto, L., Wick, W., & Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and Practice*, 2(1).

<https://doi.org/10.1186/s42466-020-00059-z>

Buss, M., Andler, S., & Tiberius, V. (2024). Female leadership: An integrative review and research framework. *The Leadership Quarterly*, 101858.

<https://doi.org/10.1016/j.leaqua.2024.101858>

- Carrasco-Santos, M. J., Seyfi, S., Hosseini, S., Hall, C. M., Mohajer, B., Almeida-García, F., & Macías, R. C. (2024). Breaking boundaries: Exploring gendered challenges and advancing equality for Iranian women careers in tourism. *Tourism Management, 103*, 104913. <https://doi.org/10.1016/j.tourman.2024.104913>
- Castañeda-Burciaga, S., Guirette-Barbosa, O. A., Ramírez-Salazar, M. A., Celaya-Padilla, J. M., & García-Estrada, L. I. (2025). Inclusion of women in the mining sector: Challenges and opportunities through education. *Education Sciences, 15*(1), 69. <https://doi.org/10.3390/educsci15010069>
- Castleberry, A., & Nolen, A. (2018). Thematic analysis of qualitative research data: Is it as easy as it sounds? *Currents in Pharmacy Teaching and Learning, 10*(6), 807–815. <https://doi.org/10.1016/j.cptl.2018.03.019>
- Cole, M. J., & Broadhurst, J. L. (2020). Mapping and classification of mining host communities: A case study of South Africa. *The Extractive Industries and Society, 7*(3), 954–964. <https://doi.org/10.1016/j.exis.2020.06.007>
- Collinson, D., & Hearn, J. (1994). Naming Men as Men: Implications for Work, Organization and Management. *GENDER, WORK AND ORGANIZATION, 1*(1), 2–22.
- Cotter, D. A., Hermsen, J. M., Ovadia, S., & Vanneman, R. (2001). The glass ceiling effect. *Social Forces, 80*(2), 655–681. <https://doi.org/10.1353/sof.2001.0091>
- Creswell, J. W., Hanson, W. E., Plano, V. L. C., & Morales, A. (2007). Qualitative Research designs. *The Counseling Psychologist, 35*(2), 236–264. <https://doi.org/10.1177/0011000006287390>
- Cruise, J. (2011). The gender and racial transformation of mining engineering in South Africa. *Journal of the Southern African Institute of Mining and Metallurgy, 111*(4), 217–224. <http://www.scielo.org.za/pdf/jsaimm/v111n4/01.pdf>

- Cullen, Z., & Perez-Truglia, R. (2023). The Old Boys' Club: Schmoozing and the gender gap. *American Economic Review*, 113(7), 1703–1740.
<https://doi.org/10.1257/aer.20210863>
- Dacin, M. T., Goodstein, J., & Scott, W. R. (2002). Institutional Theory and Institutional Change: Introduction to the Special Research Forum. *Academy of Management Journal*, 45(1), 45–56. <https://doi.org/10.5465/amj.2002.6283388>
- Daniel, L. (2024). Mitigating the barriers to female inclusion in the mining sector: a Framework for change. *Open Journal of Business and Management*, 12(05), 3208–3222. <https://doi.org/10.4236/ojbm.2024.125161>
- De Villiers, C., Farooq, M. B., & Molinari, M. (2021). Qualitative research interviews using online video technology – challenges and opportunities. *Meditari Accountancy Research*, 30(6), 1764–1782. <https://doi.org/10.1108/medar-03-2021-1252>
- Del Carmen Triana, M., Gu, P., Chapa, O., Richard, O., & Colella, A. (2021). Sixty years of discrimination and diversity research in human resource management: A review with suggestions for future research directions. *Human Resource Management*, 60(1), 145–204. <https://doi.org/10.1002/hrm.22052>
- Del Carmen Triana, M., Song, R., Um, C. T., & Huang, L. (2023). Stereotypical Perception in Management: A Review and Expansion of Role Congruity Theory. *Journal of Management*, 50(1), 188–215.
<https://doi.org/10.1177/01492063231180836>
- Deming, D. J. (2022). Four Facts about Human Capital. *The Journal of Economic Perspectives*, 36(3), 75–102. <https://doi.org/10.1257/jep.36.3.75>
- Donkoh, S. (2023). Application of triangulation in qualitative research. *Journal of Applied Biotechnology & Bioengineering*, 10(1), 6–9.
<https://doi.org/10.15406/jabb.2023.10.00319>

- Dozier, D. M. (1988). Breaking public relations' glass ceiling. *Public Relations Review*, 14(3), 6–14. [https://doi.org/10.1016/s0363-8111\(88\)80041-9](https://doi.org/10.1016/s0363-8111(88)80041-9)
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573–598. <https://doi.org/10.1037/0033-295x.109.3.573>
- Eftekhari, H. (2024). Transcribing in the digital age: qualitative research practice utilizing intelligent speech recognition technology. *European Journal of Cardiovascular Nursing*, 23(5), 553–560. <https://doi.org/10.1093/eurjcn/zvae013>
- Eshete, S. K., & Birbirssa, Z. A. (2024). Strategic Human Resource Management (SHRM) in Creating Inclusive Workplace: Systematic review. *SAGE Open*, 14(4). <https://doi.org/10.1177/21582440241287667>
- Espinosa, M. P., & Ferreira, E. (2022). Gender implicit bias and glass ceiling effects. *Journal of Applied Economics*, 25(1), 37–57. <https://doi.org/10.1080/15140326.2021.2007723>
- Feldman, S. (2019). CROSS-CULTURAL LEADERSHIP AND ORGANIZATIONAL CULTURE: A SOUTH AFRICAN PERSPECTIVE. *International Journal of Social Sciences Management and Entrepreneurship*, 3(2), 79–94.
- Flabbi, L., Macis, M., Moro, A., & Schivardi, F. (2019). Do female executives make a difference? The impact of female leadership on gender gaps and firm performance. *The Economic Journal*, 129(622), 2390–2423. <https://doi.org/10.1093/ej/uez012>
- Franczak, J., & Margolis, J. (2022). Women and great places to work: Gender diversity in leadership and how to get there. *Organizational Dynamics*, 51(4), 100913. <https://doi.org/10.1016/j.orgdyn.2022.100913>
- Galdiero, C., Maltempo, C., Marrapodi, R., & Martinez, M. (2024). Gender Diversity: an opportunity for socially inclusive human resource Management policies for

organizational sustainability. *Social Sciences*, 13(3), 173.

<https://doi.org/10.3390/socsci13030173>

Gannouni, K., & Ramboarison-Lalao, L. (2020). Examining Gender Effects on Leadership among Future Managers: Comparing Hofstede's Masculine vs. Feminine Countries*. *Management International*, 23, 42–51.

<https://doi.org/10.7202/1068534ar>

Gasser, C. E., & Shaffer, K. S. (2014). Career development of women in Academia: Traversing the leaky pipeline. *The Professional Counselor*, 4(4), 332–352.

<https://doi.org/10.15241/ceg.4.4.332>

Gottardello, D. (2023). The maze: Reflections on navigating intersectional identities in the workplace. *Gender Work and Organization*, 30(5), 1839–1854.

<https://doi.org/10.1111/gwao.13030>

Groenmeyer, S. (2011). Intersectionality in apartheid and post-apartheid South Africa. *Gender Technology and Development*, 15(2), 249–274.

<https://doi.org/10.1177/097185241101500204>

Guest, G., Bunce, A., & Johnson, L. (2005). How many interviews are enough? *Field Methods*, 18(1), 59–82. <https://doi.org/10.1177/1525822x05279903>

Gupta, V. K., Mortal, S. C., Silveri, S., Sun, M., & Turban, D. B. (2018). You're fired! Gender disparities in CEO dismissal. *Journal of Management*, 46(4), 560–582.

<https://doi.org/10.1177/0149206318810415>

Hanyane, B. R., & Ahiante, J. (2022). The Effect of Misogyny on Women's Leadership in South Africa. *Administratio Publica*, 30(2).

Heilman, M. E., & Caleo, S. (2018). Combatting gender discrimination: A lack of fit framework. *Group Processes & Intergroup Relations*, 21(5), 725–744.

<https://doi.org/10.1177/1368430218761587>

- Hennink, M., & Kaiser, B. N. (2021). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine*, 292, 114523. <https://doi.org/10.1016/j.socscimed.2021.114523>
- Herbst, T. H. (2020). Gender differences in self-perception accuracy: The confidence gap and women leaders' underrepresentation in academia. *SA Journal of Industrial Psychology*, 46. <https://doi.org/10.4102/sajip.v46i0.1704>
- Hertzog, L., Wittesaele, C., Titus, R., Chen, J. J., Kelly, J., Langwenya, N., Baerecke, L., & Toska, E. (2021). Seven essential instruments for POPIA compliance in research involving children and adolescents in South Africa. *South African Journal of Science*, 117(9/10). <https://doi.org/10.17159/sajs.2021/12290>
- Huaman-Morillo, S. R., Linden, K. L. V., & Palmieri, P. A. (2024). Metaphors Describing the gendered organization in the Career Advancement of Women: An Integrative review. *Administrative Sciences*, 14(9), 196. <https://doi.org/10.3390/admsci14090196>
- Ibarra, H., Carter, N. M., & Christine, C. (2010). *Why Men Still Get More Promotions Than Women*. Harvard Business Review.
- Jenkins, K. (2014). Women, mining and development: An emerging research agenda. *The Extractive Industries and Society*, 1(2), 329–339. <https://doi.org/10.1016/j.exis.2014.08.004>
- Kaggwa, M. (2019). Interventions to promote gender equality in the mining sector of South Africa. *The Extractive Industries and Society*, 7(2), 398–404. <https://doi.org/10.1016/j.exis.2019.03.015>
- Kankam, P. K. (2019). The use of paradigms in information research. *Library & Information Science Research*, 41(2), 85–92. <https://doi.org/10.1016/j.lisr.2019.04.003>

- Kansake, B. A., Sakyi-Addo, G. B., & Dumakor-Dupey, N. K. (2021). Creating a gender-inclusive mining industry: Uncovering the challenges of female mining stakeholders. *Resources Policy*, 70, 101962.
<https://doi.org/10.1016/j.resourpol.2020.101962>
- Kumar, A. (2019). Strategic HRM practices to deal with gender diversity problems in organizations. *SSRN Electronic Journal*.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3720803
- Kumar, J. (2019). Understanding Different Issues of Unit of Analysis in a Business Research. *Journal of General Management Research*.
- Kumar, S. (2018). Understanding Different Issues of Unit of Analysis in a Business Research. *Journal of General Management Research*, 5(2).
- Lahiri-Dutt, K., & Macintyre, M. (2007). Women Miners in developing Countries: Pit women and others. *Development in Practice*, 17(2), 312–314.
<https://doi.org/10.1080/09614520701197374>
- Leoni, S. (2023). A historical review of the role of education: From human capital to Human Capabilities. *Review of Political Economy*, 1–18.
<https://doi.org/10.1080/09538259.2023.2245233>
- Lewis, L., & Wescott, H. (2017). Multi-Generational workforce: four generations united in lean. *ResearchGate*. <https://www.researchgate.net/publication/316160639>
- Lewis, S. (2024, May 16). *Switch to electric vehicles disrupting workforces worldwide*.
<https://www.wardsauto.com/electric/switch-to-electric-vehicles-disrupting-workforces-worldwide>
- Maida, A., & Weber, A. (2019). Female Leadership and Gender Gap within Firms: Evidence from an Italian Board Reform. *SSRN Electronic Journal*.
<https://doi.org/10.2139/ssrn.3390087>

- Makhutla, N. E., Naidoo, G. M., & Rugbeer, H. (2021). Challenges to Women's Leadership Role and Cross-Cultural Communication in Corporate Career Success in South Africa. *African Journal of Gender Society and Development (Formerly Journal of Gender Information and Development in Africa)*, 10(2), 157–179. <https://doi.org/10.31920/2634-3622/2021/v10n2a9>
- Mangaroo-Pillay, S., & Botha, D. (2020). An exploration of women's workplace experiences in the South African mining industry. *Journal of the Southern African Institute of Mining and Metallurgy*, 120(8). <https://doi.org/10.17159/2411-9717/1099/2020>
- Mashaba, N., & Botha, D. (2023). Factors affecting the attraction of women to technical mining positions in South Africa. *SA Journal of Human Resource Management*, 26(1). <https://doi.org/10.4102/sajhrm.v21i0.2227>
- Mashaba, N., & Botha, D. (2024). Employee engagement among women in technical positions in the South Africa mining industry. *Journal of the Southern African Institute of Mining and Metallurgy*, 123(11), 527–538. <https://doi.org/10.17159/2411-9717/2269/2023>
- Mcculloch, J. (2003). Women mining asbestos in South Africa, 1893-1980. *Journal of Southern African Studies*, 29(2), 413–432. <https://doi.org/10.1080/03057070306201>
- McGowan, L. J., Powell, R., & French, D. P. (2020). How can use of the Theoretical Domains Framework be optimized in qualitative research? A rapid systematic review. *British Journal of Health Psychology*, 25(3), 677–694. <https://doi.org/10.1111/bjhp.12437>
- McKinsey & Company. (2021, September 13). *Why women are leaving the mining industry and what mining companies can do about it*. <https://www.mckinsey.com/industries/metals-and-mining/our-insights/why->

women-are-leaving-the-mining-industry-and-what-mining-companies-can-do-about-it

- Meyer, J. W., & Rowan, B. (1977). Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology*, *83*(2), 340–363.
<https://www.jstor.org/stable/2778293>
- Michelman, V., Price, J., & Zimmerman, S. D. (2021). Old boys' clubs and upward mobility among the educational elite. *The Quarterly Journal of Economics*, *137*(2), 845–909. <https://doi.org/10.1093/qje/qjab047>
- Mincer, J., & Polachek, S. (1978). An Exchange: The Theory of Human Capital and the Earnings of Women: Women's Earnings Reexamined. *The Journal of Human Resources*, *13*(1), 118. <https://doi.org/10.2307/145305>
- Mkhatshwa, T., & Genc, B. (2022). Women's representation in senior and executive management positions in a South African coal mine: A case study. *Resources Policy*, *79*, 102957. <https://doi.org/10.1016/j.resourpol.2022.102957>
- Moalusi, K. P., & Jones, C. M. (2018). Women's Prospects for Career Advancement: Narratives of women in core mining positions in a South African mining organisation. *SA Journal of Industrial Psychology*, *40*.
- Mohamed, F., Elsaid, A. M., & Ela, G. M. (Eds.). (2001). Literature Reflections on Career Women development. *The Business and Management Review*, *12*(2), 28–46.
- Moraka, N., & Van Rensburg, M. J. (2015). Transformation in the South African mining industry - looking beyond the employment equity scorecard. *Journal of the Southern African Institute of Mining and Metallurgy*, *115*(8), 669–678.
<https://doi.org/10.17159/2411-9717/2015/v115n8a2>
- Moratti, S. (2018). What's in a word? On the use of metaphors to describe the careers of women academics. *Gender and Education*, *32*(7), 862–872.
<https://doi.org/10.1080/09540253.2018.1533927>

- Msibi, P., & De Waal, M. (2025). Guidelines toward Mainstreaming Gender Inclusivity in the Mining Sector in South Africa. *Medicon Medical Sciences*, 8(2).
- Muko, K. (2024). An ethical critique of the sexist mining myths and the gender factor in the extractive industry of Southern Africa. *Reports*, 4(3), 37–47.
<https://doi.org/10.11648/j.reports.20240403.12>
- Naderifar, M., Goli, H., & Ghaljaie, F. (2017). Snowball sampling: a purposeful method of sampling in qualitative research. *Strides in Development of Medical Education*, 14(3). <https://doi.org/10.5812/sdme.67670>
- Naeem, M., Ozuem, W., Howell, K., & Ranfagni, S. (2023). A Step-by-Step process of thematic analysis to develop a conceptual model in qualitative research. *International Journal of Qualitative Methods*, 22.
<https://doi.org/10.1177/16094069231205789>
- Naguib, R., & Madeeha, M. (2023). “Making visible the invisible”: Exploring the role of gender biases on the glass ceiling in Qatar’s public sector. *Women S Studies International Forum*, 98, 102723. <https://doi.org/10.1016/j.wsif.2023.102723>
- Neubauer, B., Witkop, C. T., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. *Perspectives on Medical Education*, 8(2), 90–97.
<https://doi.org/10.1007/s40037-019-0509-2>
- Noland, M., Moran, T., & Kotschwar, B. (2016). Is Gender Diversity Profitable? Evidence from a Global Survey. In *Peterson Institute for International Economics*. Peterson Institute for International Economics.
- Oranga, J., & Matere, A. (2023). Qualitative Research: Essence, types and Advantages. *OALib*, 10(12), 1–9. <https://doi.org/10.4236/oalib.1111001>
- Otoo, F., Kuar, M., & Otoo, E. (2022). Does human capital mediate the nexus of human resource management (HRM) practices and organizational performance?

- International Journal of Research in Business and Social Science (2147-4478)*, 11(5), 199–209. <https://doi.org/10.20525/ijrbs.v11i5.1829>
- Pandey, P., & Pandey, M. (2015). *Research Methodology: Tools and Techniques*. Bridge Center.
- Penkala, M. (2024). THE ROLE OF HUMAN CAPITAL IN THE INNOVATION MANAGEMENT PROCESS. *Humanities and Social Sciences Quarterly*, 31(3), 107–119. <https://doi.org/10.7862/rz.2024.hss.34>
- Posel, D., & Casale, D. (2019). Gender and the economy in post-apartheid South Africa: Changes and challenges. *Agenda*, 33(4), 3–10. <https://doi.org/10.1080/10130950.2019.1679439>
- Pugliese, F. (2020). Mining companies and gender(ed) policies: The women of the Congolese Copperbelt, past and present. *The Extractive Industries and Society*, 8(3), 100795. <https://doi.org/10.1016/j.exis.2020.08.006>
- Queirós, A., Faria, D., & Almeida, F. (2017). STRENGTHS AND LIMITATIONS OF QUALITATIVE AND QUANTITATIVE RESEARCH METHODS. *European Journal of Education Studies*. <https://doi.org/10.46827/ejes.v0i0.1017>
- Saleem, F., & Mateou, S. (2024). How glass ceiling perceptions affect job performance: finding the missing link through career satisfaction and work–life balance support. *Journal of Organizational Effectiveness People and Performance*. <https://doi.org/10.1108/joepp-03-2024-0097>
- Sato, S., Gyax, P. M., Randall, J., & Mast, M. S. (2020). The leaky pipeline in research grant peer review and funding decisions: challenges and future directions. *Higher Education*, 82, 145–162.
- Saunders, M. N. K., & Lewis, P. (2017). *Doing research in business and management*. Pearson Higher Ed.

- Schutte, P. J. (2009). *visiting Hofstede among South African students: some intercultural communication guidelines for the workplace*.
<https://scholar.ufs.ac.za/xmlui/handle/11660/7274>
- Serpa, S., & Ferreira, C. M. (2019). Micro, meso and macro levels of social analysis. *International Journal of Social Science Studies*, 7(3), 120.
<https://doi.org/10.11114/ijsss.v7i3.4223>
- Sesele, K., Marais, L., & Van Rooyen, D. (2021). Women and mine closure: A case study of policy in South Africa. *Resources Policy*, 72, 102059.
<https://doi.org/10.1016/j.resourpol.2021.102059>
- Setkute, J., & Dibb, S. (2022). “Old boys’ club”: Barriers to digital marketing in small B2B firms. *Industrial Marketing Management*, 102, 266–279.
<https://doi.org/10.1016/j.indmarman.2022.01.022>
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2), 63–75. <https://doi.org/10.3233/efi-2004-22201>
- Sileyew, K. J. (2020). Research design and methodology. In *IntechOpen eBooks*.
<https://doi.org/10.5772/intechopen.85731>
- Sorensen, P. (2011). Legislative transformation of South African mining since 1994: what progress? *International Journal of Environmental Studies*, 68(2), 171–190.
<https://doi.org/10.1080/00207233.2010.542314>
- Taparia, M., & Lenka, U. (2022b). An integrated conceptual framework of the glass ceiling effect. *Journal of Organizational Effectiveness People and Performance*, 9(3), 372–400. <https://doi.org/10.1108/joepp-06-2020-0098>
- Terzi, H., Özdemir, F., & Özkan, T. (2022). The Relationship between Gender Gap in Employment and Hofstede’s Culture Dimensions depending on Country Scores.

Psikoloji Çalışmaları / Studies in Psychology, 42(2), 473–507.

<https://doi.org/10.26650/sp2021-941054>

- Thetsane, R. M., Meyer, D., & Chambwe, M. (2024). An application of Hofstede's cultural dimensions and golden circle in entrepreneurship education. *The Southern African Journal of Entrepreneurship and Small Business Management*, 16(1). <https://doi.org/10.4102/sajesbm.v16i1.934>
- Vaismoradi, M., Jones, J., Turunen, H., & Snelgrove, S. (2016). Theme development in qualitative content analysis and thematic analysis. *Journal of Nursing Education and Practice*, 6(5). <https://doi.org/10.5430/jnep.v6n5p100>
- Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology*, 18(1). <https://doi.org/10.1186/s12874-018-0594-7>
- Vaz, E. R. D., Gallon, S., & Fraga, A. M. (2023). "We Go through a Bit of Everything": The labyrinth career of the professional trajectories of executive women. *Review of Business Management*, 25(1), 88–107. <https://doi.org/10.7819/rbgn.v25i1.4213>
- Vyas-Doorgapersad, S., & Shava, E. (2022). A situational analysis of women's leadership in South African politics. *African Journal of Gender Society and Development (Formerly Journal of Gender Information and Development in Africa)*, 11(2), 137–155. <https://doi.org/10.31920/2634-3622/2022/v11n2a7>
- Wang, J. C., Markóczy, L., Sun, S. L., & Peng, M. W. (2018). She'-E-O Compensation Gap: A role Congruity view. *Journal of Business Ethics*, 159(3), 745–760. <https://doi.org/10.1007/s10551-018-3807-4>
- Watson, I., & Olalde, M. (2019). The state of mine closure in South Africa - what the numbers say. *Journal of the Southern African Institute of Mining and Metallurgy*, 119(7). <https://doi.org/10.17159/2411-9717/331/2019>

Wickware, P. (1997). Along the leaky pipeline. *Nature*, 390(6656), 202–203.

<https://doi.org/10.1038/36639>

Williams, M., & Moser, T. (2019). The art of coding and thematic exploration in

qualitative research. *International Management Review*, 15(1), 45.

<https://www.questia.com/library/journal/1P4-2210886420/the-art-of-coding-and-thematic-exploration-in-qualitative>

World Economic Forum. (2023). *Global Gender Gap Report 2023*.

<https://www.weforum.org/publications/global-gender-gap-report-2023/>

World Economic Forum. (2024). *Global Gender Gap Report 2024*.

<https://www.weforum.org/publications/global-gender-gap-report-2024/>

Zeidan, R., Van Holt, T., & Whelan, T. (2020). Existence inductive theory building to study coordination failures in sustainable beef production. *Journal of Cleaner*

Production, 267, 122137. <https://doi.org/10.1016/j.jclepro.2020.122137>

Zucker, L. G. (1987). Institutional Theories of Organization. *Annual Review of Sociology*,

13, 443–464. <http://www.jstor.org/stable/2083256>

Appendix A: Ethical Clearance

**Gordon Institute
of Business Science**
University of Pretoria

**Ethical Clearance
Approved**

Dear Keletso Marsh,

Please be advised that your application for Ethical Clearance has been approved.

You are therefore allowed to continue collecting your data.

We wish you everything of the best for the rest of the project.

[Ethical Clearance Form](#)

Kind Regards

This email has been sent from an unmonitored email account. If you have any comments or concerns, please contact the GIBS Research Admin team.

Appendix B: Interview Guide

SECTION A: Background information

A.1. Can you please tell me about your current role and how long have you been working in the mining sector?

A.2. What is your experience with leadership roles within the industry?

SECTION B

B.1. In your experience, what are the key organisational barriers that have hindered your or other women's progression to senior leadership roles in the mining industry?

B.2. How do you perceive the impact of cultural and social norms on women's career progression in the mining sector?

B.3. Do you feel that the male-dominated nature of the mining industry has created specific obstacles for women in leadership roles? If so, can you provide examples?

B.4. What is your perspective on the effectiveness of existing policies, such as the Mining Charter, in promoting gender equality within your organisation?

B.5. Have you seen any tangible outcomes from initiatives aimed at increasing female representation in leadership?

B.6. What additional policies or support do you believe are necessary to help women advance to senior leadership positions in the mining industry?

B.7. What challenges do you think women face when trying to reach senior and executive management positions in the mining industry?

B.8. How do you think the underrepresentation of women in leadership roles affect the overall organisational culture and decision-making processes?

B.9. What do you think can be done to increase the representation of women in senior leadership roles within the mining industry?

Appendix C: Code Categorisation

Table 7: Theme 1 Codes

Theme: 1	Subthemes	Codes
Systemic and Structural Barriers	Organisational Barriers	Boys Club Culture organisational culture organisational values disconnect. organisational decision-making impact; organisational diversity impact organisational support structures structural barriers; systematic exclusion toxic work environment.
	Industry-Specific Challenges	industry attractiveness industry perception Industry transformation industry decline impact physical barriers to the workplace infrastructure challenges location challenges

Table 8: Theme 2 Codes

Theme: 2	Subthemes	Codes
Career Development and Progression	Career Advancement Barriers	Career clipping career path barriers career mobility constraints career progression timeline Career progression trade-offs limited career progression opportunities. slow progression in representation
	Professional Development	competency development needs formal development. Training and development gaps educational investment Professional development needs exposure opportunities. experience gap. Technical Competence Perceptions
	Leadership Pipeline	leadership roles progression succession planning pipeline development. peripheral leadership roles Under-representation in leadership under-representation in decision-making

Table 9: Theme 3 Codes

Theme: 3	Subthemes	Codes
Discrimination and Bias	Gender-Based Discrimination	gender bias and stereotypes gender discrimination gender differences in leadership traditional gender roles systemic gender pays disparity. pay discrimination
	Multiple Forms of Bias	age-based discrimination race discrimination pregnancy discrimination readiness bias selection bias performance bias potential vs. experience bias conscious bias
	Behavioural Perceptions	gender-based behavioural perceptions Competency Perceptions behavioural expectations double standards in leadership evaluation

Table 10: Theme 4 Codes

Theme: 4	Subthemes	Codes
	Cultural elements	internalised cultural norms. cultural and societal barriers; Cultural and Religious Influences cultural and societal expectations
	Power and Politics	Power dynamics. Hierarchical Challenges Strategic Exclusion tokenism window dressing intentional sabotage
	Support Networks	informal networks exclusion Mentorship Needs sponsorship needs inadequate support systems leadership networking

Table 11: Theme 5 Codes

Theme: 5	Subthemes	Codes
Work-Life Integration	Balance Challenges	Work-life balance. Work-family balance family-career trade-offs flexibility needs inflexible work arrangement
	Caregiver Responsibilities	maternity impact maternity career impact caregiver responsibilities
	Workplace Adaptability	Remote Work Challenges role flexibility Technology adaptation supportive workplace practices

Table 12: Theme 6 Codes

Theme: 6	Subthemes	Codes
Transformation and Change	Change Management	resistance to change. Resistance to generational change transformation challenges Transformation initiatives positive transformation slow transformation pace
	Accountability Measures	accountability measures. Inappropriate progress tracking outcome of the initiative Compliance vs. Genuine Inclusion merit-based advancement

Table 13: Future Frameworks Codes

Element: Insights for Future Frameworks	Codes
Transformation and Change	top-down implementation. reactive vs. proactive approach proactive leadership mindset transformation proposed interventions