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Department of Chemical Engineering

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Gender Equity and Business Leadership in the South African Mining Sector

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*A thesis accepted in fulfilment of the requirements for the degree of  
Doctor of Philosophy*



minerals to metals

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## Abstract

Despite existing legislation and frameworks that are intended to protect women's rights, women remain under-represented in all aspects of the mining sector. Although scholarship has engaged with the challenges of women in the workplace across a wide range of contexts, it has not yet specifically addressed the challenges and possible opportunities in specific relation to women in business (service providers and contractors) in the mining industry. The industry has the potential to rectify some of the gender equity issues by creating business leadership opportunities for women. This study therefore explores ways to achieve this gender equality in South Africa's mining industry by identifying ways of empowering women in the business of mining.

The research questions sought to explore: 1) The current landscape of women participating in the business of mining in South Africa; 2) What the key barriers and drivers are with respect to improving participation of women in the business of mining; 3) What needs to change to bring more women into business in the mining industry. A grounded theory approach was considered most appropriate for this research because it draws on the lived experiences of participants, both female and male, occupying a wide range of leadership and management positions. Expert interviews with high profile leaders were selected as the best research method because of the value to be gained from their varied perspectives.

The research indicated that, over time, women have been systematically excluded from the sector. To participate in the business of mining, women have had to integrate into the prevailing male-dominant culture. Not only has this prevented the full inclusion and participation of women but the industry has failed to harness the benefit of diversity. The research makes clear the challenges that women face in this industry; the findings can form the basis for new strategic and economic opportunities, a priority for the mining sector. The value of these research outcomes extends beyond the mining industry into the broader context of gender equity in business leadership. Actions taken on the research insights can positively address economic growth, private and public sector performance and income inequality. Together, these strategies have the potential to promote gender equality and create an environment which enables women's greater participation and advancement in the business of mining, and beyond.

## Statement of Originality

### **DECLARATION**

I know the meaning of plagiarism and declare that all the work in the document, save for that which is properly acknowledged, is my own. This thesis/dissertation has been submitted to the Turnitin module and I confirm that my supervisor has seen my report and any concerns revealed by such have been resolved with my supervisor.

Signature:

## Dedication

To my husband Minesh, for making it possible in so many ways. And to our children Talita & Minav

*Life is good, because I share it with you*

## Acknowledgements

*“You give but little when you give off your possessions. It is when you give off yourself that you truly give”. – Khalil Gibran*

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## List of Acronyms

<b>ASM</b>	Artisanal and Small-scale Mining
<b>BEE</b>	Black Economic Empowerment
<b>BBBEE</b>	Broad-Based, Black Economic Empowerment
<b>CEO</b>	Chief Executive Officer
<b>CFO</b>	Chief Financial Officer
<b>COO</b>	Chief Operational Officer
<b>CSD</b>	Commission on Sustainable Development
<b>DME</b>	Department of Minerals and Energy
<b>DTI</b>	Department of Trade and Industry
<b>ESG</b>	Environmental, Social and Corporate Governance
<b>GDP</b>	Gross Domestic Product
<b>IWIM</b>	International Women in Mining
<b>HDSA</b>	Historically Disadvantaged South Africans
<b>MD</b>	Managing Director
<b>MDGs</b>	Millennium Development Goals
<b>MPRDA</b>	Mineral and Petroleum Resources Development Act, 2002
<b>PGM</b>	Platinum Group Metals
<b>PPE</b>	Personal Protective Equipment
<b>RBCT</b>	Richards Bay Coal Terminal
<b>ROE</b>	Return on Equity
<b>SBI</b>	Small Business Institute
<b>SDGs</b>	Sustainable Development Goals
<b>UN</b>	United Nations
<b>UNCED</b>	UN Conference on Environment and Development
<b>WEGE</b>	Women's Empowerment and Gender Equality
<b>WCED</b>	World Commission on Environment and Development
<b>WIM</b>	Women in Mining
<b>WIMBIZ</b>	Women in Mining Business
<b>WIMSA</b>	Women in Mining South Africa
<b>WSSD</b>	World Summit on Sustainable Development

## CHAPTER 1: INTRODUCTION

### 1.1 Introduction

The 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) represent the world's plan of action for social inclusion, environmental sustainability and economic development (Biggeri et al., 2019; Gonitzka & Wilson, 2020; Pedersen, 2018). This has particular significance for the South African mining industry. While mining has undoubtedly been at the heart of creating many of the inequalities the SDGs are trying to address, mining also has the potential to create jobs, spur innovation and, at a game-changing scale, bring in investment and infrastructure over long time horizons. The industry thus has an unprecedented opportunity to mobilize significant human, physical, technological and financial resources to advance the SDGs (Sonesson et al., 2016; United Nations, 2019).

SDGs must be interpreted and applied in the context of specific economic sectors in order to achieve tangible outcomes (Vanclay et al., 2015). For the purpose of this research, the context is the mining industry in South Africa and its majority of outsourced operations to specialist providers (Hanlin & Kaplan, 2011). This has particular relevance to SDG5. This SDG calls for the full participation of women and equal leadership opportunities at all levels of political and economic decision-making for women (Sen, 2014). The South African mining industry has the potential to offer opportunities for women to participate more fully in the business of mining.

Mining has long been, and remains, a significant economic sector in South Africa. However, the industry faces numerous challenges. Chief among these is policy uncertainty, decreased commodity prices, rising costs and increased stakeholder expectations (Burger et al., 2019; Mbazima, 2020). Critical to dealing with these challenges is the empowerment of women especially in the business of mining, but despite the legislation and existing legal frameworks in South Africa intended to protect women's rights, women in mining remain underrepresented both as employees and as business participants (Marabwa, 2021). Globally women in senior leadership are least represented in the mining, gas and oil industries; they account for less than a quarter of the employees in comparison to any other industry (World Economic Forum, 2023). Women continue to face challenges that range from gaps in legislation to health and safety concerns (Adam Smith International & International Women in Mining, 2017; April & Sikatali, 2019). As employees, women represent just 12% of the South African mining industry

(only 56691 of the total 454861 employees) (Minerals Council South Africa, 2020); in contrast women represent 42% in South Africa's finance industry (1,02 million of the total 2,404 million employees) (StatsSA, 2019). This comparison must be treated with caution given the vast differences between the two sectors.

Critical functions in South Africa's mining industry are outsourced to specialist providers, also known as contractors (Hanlin & Kaplan, 2011). My observation is that very few of the numerous contracted businesses which serve the mining industry are women-led or women-owned. Studies on women-led businesses in the mining industry cannot be found in the literature. There is a lack of theoretical perspectives of business growth factors for women-owned businesses globally (Hechavarría, 2018) and there is even less research exploring women-owned businesses in developing countries (Lewis, 2015; Welter, 2011). Due to so little study having been done, it is difficult to formulate plans on the way forward to improve participation. South Africa's mining history (colonialism followed by apartheid) and its far-reaching historical discrimination and patriarchy has resulted in a unique socio-political context. While I acknowledge that my research could be extended to women at all levels and across different jurisdictions in the mining industry, my focus is on women in leadership and business in the mining industry in South Africa.

## **1.2 Research Goals and Objectives**

Literature has shown that there is very little known on women in the business of mining and that makes it very difficult to address the challenges and possible opportunities. This research study aims to explore why women in the business of mining have not become empowered and how their experiences can be used to formulate strategies that will empower women in the South African mining industry. Changes made as a result of these insights will create a far more efficient industry while improving the overall sustainability of the industry.

In the context outlined above, these are the specific key questions that this study seeks to answer:

1. What is the current landscape of women participating in the business side of the mining industry in South Africa?

2. What are the key barriers and drivers with respect to improving participation of women in the business of mining?
3. What needs to change to bring more women into business in the mining industry?

### **1.3 Research Approach and Scope**

A constructivist grounded theory approach was considered most appropriate for this study as current literature does not adequately answer the research questions. Grounded Theory is a research method in which the theory is developed from data when little is known about the phenomenon (Gehman et al., 2017; Glaser & Strauss, 1967). Based on the findings from the literature review of the broader context, scholarship has engaged with the challenges of women in the workplace across a wide range of contexts but has not yet specifically addressed the challenges and possible opportunities in specific relation to women in business (service providers and contractors) in the mining industry.

One of the issues that a grounded theorist needs to consider, as it is unlikely that they would enter their study with absolutely no knowledge of it, is how to situate themselves in the study because their world view, education, experiences and assumptions determine how they interpret the data. Due to these circumstances the interactions with the 32 research participants and the ensuing discussions generate data that is unique (Charmaz, 2014). It is important to note that I began this research with a good understanding of the mining industry (from the mine face to the boardroom). As a female entrepreneur specialising in underground roof support and underground ventilation for 23 years I have faced many challenges and am aware of the challenges and threats currently confronting the mining industry. I therefore felt the need to explore ways in which the maximum knowledge and human talent within the industry could be utilized. This is in alignment with advancing SDG5 as the research explores how better gender equality can be achieved in the mining business sector. This is essential for the future success of South African mining as it will improve overall sustainability in how the business operates, while contributing meaningfully towards the true empowerment of women.

As much as my experience in the industry helped me shape the conversations and gave me access to the relevant participants, I was mindful of the bias that could result from my experience and took conscious steps to mitigate the effect on interview outcomes. The risk of bias lies in the interpretation of the researcher. It is commonly accepted that all research is

shaped by the perspective or position of the researcher (Malterud, 2001). To avoid influencing the interviewees' responses or the interpretation of the comments I acknowledged my preconceptions by not using leading questions and by trying to stay objective. It was imperative that I understood and interpreted the social world from the interviewees' perspectives while recognising that my own background could influence interpretations of the phenomenon under study (Creswell, 2007). Quotations from participants were included in order for me to confirm whether the findings on the phenomena were true to the participants' accounts (Noble & Smith, 2015).

The literature review for this thesis was conducted in two parts. The first provided context on the current research around women in mining in general and the second part was when I dug deeper into the actual theory of women in mining during the development of my own interpretation. During data collection and analysis, I put aside the literature that was explored in the lead up to this study, as recommended by several grounded theorists (Binder & Edwards, 2010; Charmaz, 2014; Sbaraini et al., 2011). Data was collected and systematically recorded. Documented patterns emerged of the current experiences of women in the business of mining, what the barriers and influencing factors are and what the opportunities for change are. I then used thematic analysis to analyse the findings. Thematic analysis is a method that can be used in its own right but, if done in an inductive way, is consistent with the grounded theory methodology. This approach enabled the key themes to emerge, and these informed the development of my interpretation.

In essence, I incorporated thematic analysis within the grounded theory methodological framework. I then returned to the literature in order to contextualize how my findings related to previous work, as encouraged by grounded theorists (Charmaz, 2014; Glaser & Strauss, 1967). I examined topics that I had explored prior to data collection, as well as new topics that emerged through the data collection process. The collection and analysis of the data provided a sense of context, making the idea of gender equity and business leadership realistic and achievable. Based on the understanding of the analysis of the data collected, causal relationships were established, thereby developing an interpretation of the evidence. I then

used this interpretation to propose a strategy for achieving better inclusivity of women in the business of mining<sup>1</sup>.

This thesis was concerned with the role of businesswomen and leaders in the formal sector only, and specifically excluded the informal sector. Nevertheless, it is recognized that artisanal and small-scale mining (ASM) in Africa provides approximately 9 million rural jobs where women represent as much as 50% of the total labour force, with a growing body of evidence revealing that women are differently, and more negatively, impacted by their engagement in ASM in their communities than are men (Gamu et al., 2015; Hilson & McQuilken, 2014; Hinton et al., 2003).

#### **1.4 Thesis Outline**

Chapter 1 – this chapter provides a brief background of the study. Chapter 2 (literature review) provides information on the current literature around the topic. Chapter 3 (methodology) describes the research setting, data collection and analysis, and ethical considerations. Chapter 4 (findings) presents the thematic analysis of the data gathered from the interviewees. Chapter 5 is where I apply this analysis to establish relationships in the context of challenges and barriers, the perspectives of the interviewees and the causal relationships. Chapter 6 draws conclusions against the research questions and suggests a co-operative and collaborative strategy for improving gender equity.

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<sup>1</sup> I do recognise that I have not taken LGBTQI (lesbian, gay, bisexual, transgender, queer and intersex identities) into account. I have adopted a more binary perspective where a person is defined as woman if they identify as such.

## Chapter 2: LITERATURE REVIEW

### 2.1 Introduction

Mining has remained a male-dominated industry at all levels despite the focus on diversity and inclusion over the last two decades (Abrahamsson et al., 2017; Alexander, 2007). Women's rights and the development of their potential continue to be undermined in the mining industry despite their human right to participate and make decisions (Blitt, 2012; Hill & Madden, 2016; Lahiri-Dutt, 2019). Sustainable Development Goal 5 (SDG5) is therefore of particular importance. This goal calls for reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national law (Eftimie et al., 2009; World Bank Group, 2013).

South Africa is ranked in the top three countries globally in terms of production of Platinum Group Metals (PGM) and 5<sup>th</sup> internationally in terms of mining contribution to GDP (Wits Mining Institute, 2016). The mining industry therefore has the potential to create opportunities for women thereby contributing to SDG5 by empowering women in the business of mining. This chapter identifies existing literature on the topic in order to provide a broad context for this study (as illustrated in Figure 1).

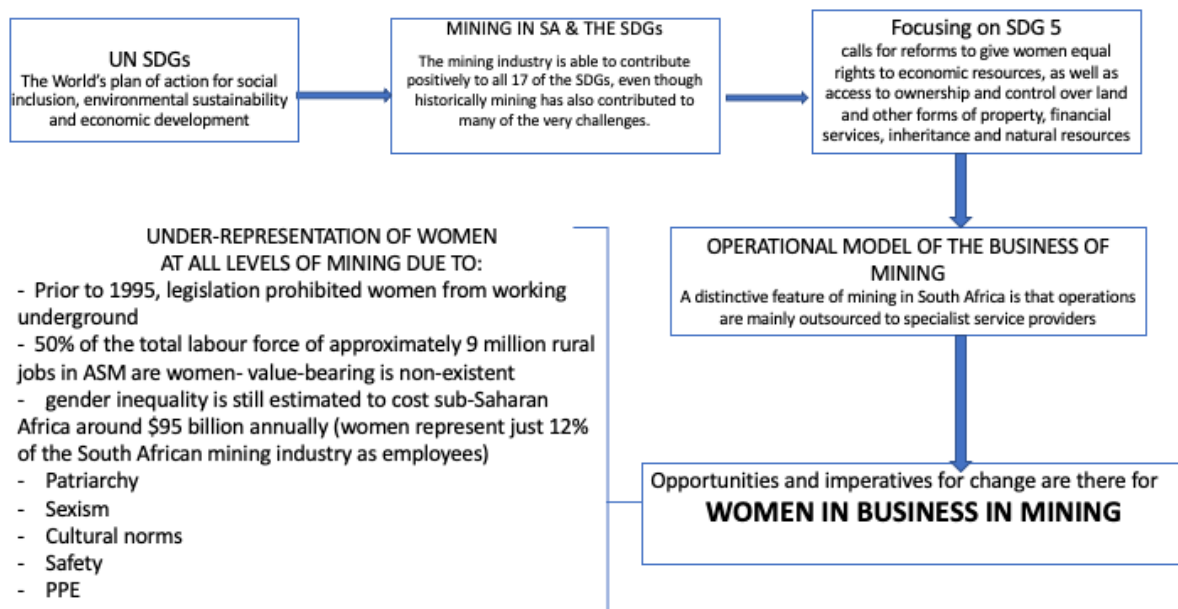


Figure 1: Diagram of literature review

## 2.2 United Nations Sustainable Development Goals: purpose and obligations

The 17 Sustainable Development Goals are designed to be a "blueprint to achieve a better and more sustainable future for all" by 2030 (Department of Economic and Social Affairs, 2020; United Nations, 2015c; Yakovleva et al., 2017). The SDGs are not a theory in themselves; rather they are goals that stem from the proposition that sustainability, across a number of fronts, is essential for future global prosperity. The overarching purpose of the SDGs is a global call to action to end poverty while protecting the environment, thereby ensuring that "no one is left behind" by 2030 (Department of Economic and Social Affairs, 2020; United Nations, 2015b; Yakovleva et al., 2017). The SDGs apply to all countries and their people and cover all aspects of humanity: education, health, justice, peace, equality and security (Fukuda-Parr, 2016; Prilepok et al., 2022).

In order to meet the SDG targets, each country needs to adapt the SDGs to their own context and adopt global indicators (United Nations Environment Programme, 2016; Vandemoortele, 2018). However, even though women, youth and children are at risk of being left behind, only 36% of countries, including South Africa, have included them as part of their development plans (Kindornay & Gendron, 2020). All stakeholders need to identify national and local priorities, targets and indicators through inclusive and participatory processes in order to adapt the goals to country-specific contexts. This will help countries implement targets in line with their existing circumstances (Department of Economic and Social Affairs, 2020).

Significant economic inequalities impede progress towards these objectives. The average income in developing countries that are export commodity-dependant is less than in 2014 (Kindornay & Gendron, 2020). Despite not being well integrated with global trading networks, less developed countries witnessed growth in 2019, but in Africa a rate of just 0,5% has been recorded over the last ten years. In order to eliminate poverty on the continent, a per capita income growth rate of 8,7% is required (Department of Economic and Social Affairs, 2020).

In Africa, quality of life remains at risk due to inequality, food insecurity and the climate crisis (Brundtland, 2020). Policy uncertainties and trade disputes have also contributed to a global deterioration of the economy (Easterly, 2015; United Nations, 2020). If not correctly addressed, these challenges could further prevent countries from meeting the 2030 goals.

Even though historically mining has also contributed to many of the challenges that the SDGs attempt to address, the mining industry also has the potential to contribute positively to all 17 of the SDGs (Sebestyén et al., 2020; van Zanten & van Tulder, 2021). Some of these challenges are population displacement, deteriorating environment, increase in social and economic inequality, gender-based violence, tax evasion and corruption, violent conflicts and health hazards (Sonesson et al., 2016).

At the same time, mining has the potential to drive economic growth. By attracting investment and improving human, physical, technological and financial resources, mining can advance the SDGs on a large scale, from exploration to production and all the way to mine closure. By aligning mining with the SDGs, the transformative power of collaboration and partnership between the mining industry and other stakeholders, including local communities, government and the private sector, can be leveraged (Sonesson et al., 2016; World Business Council for Sustainable Development, 2014).

SDG5 is the most relevant to research on gender inequality in the South African mining industry. This goal aims to achieve gender equality by ending all forms of discrimination, violence and any harmful practices against women and girls in the public and private spheres (StatsSA, 2019). In order to meet this goal, the role of women in the South African mining industry needs to be addressed.

### **2.3 Women in mining in South Africa and the SDGs**

The historic image of mining as physically demanding still discourages women from fuller participation in the industry despite improvements in mechanization and automation (Kilu, 2017). Other cultural, social and legal factors also contribute.

This difference is usually a reflection of existing gender inequalities manifested in the division of labour and the cultural norms that lower the status and authority of women relative to men. Patriarchy and sexism remain prominent in many African cultural groups and thus contribute further to the problem (Botha, 2010; Connell & Claughton, 2018). Due to the informal nature of the ASM sector, women have difficulty in asserting their rights with regards to equal pay or safety (Yakovleva, 2007). Cultural and institutional constraints have ensured that involvement of women in ASM for access to finance and ownership is non-existent despite them being

involved in crushing, sluicing, amalgam decomposition, provision of goods and services, amongst other activities (Weldegiorgis et al., 2014). The *de jure* and *de facto* inequity of access to resourceful land and property rights also prevents women from access to finance (De Jong & Sauerwein, 2021).

In formal mining, the biggest challenge to women is their safety underground, especially their vulnerability to harassment, sexual violence and rape (Kansake et al., 2021; Lahiri-Dutt, 2019; Moodley, 2012). The problem is aggravated by poorly lit areas, crowded transportation and the lack of toilet and changing facilities. Additionally, PPE for mining (Personal Protective Equipment designed to protect the human body from injury or infection) has been primarily designed with men in mind. For example, the boots are too wide and long, gloves do not fit women, one-piece unisex overalls make using underground ablution facilities awkward and equipment is designed for larger, male hands and for male weight-lifting capabilities (Minerals Council South Africa, 2020).

The situation on the ground is compounded by the stratification and social, environmental and economic pressures the industry can create; these problems extend from the mine pit to the boardroom (Buxton, 2012; Weldegiorgis et al., 2014). Scholarship has shown that workplace diversity in the mining sector is problematic (Hogan Lovell & Africa Legal, 2017; Laplonge, 2014; Mayes & Pini, 2014; Williams et al., 2012) because the workplace is “fundamentally harnessed by the industry to perpetuate the status quo - which is of a highly masculinized sector - while presenting a modern and acceptable face to society” (Macdonald, 2017, p. 144), a view supported by other research (Nel & Joel, 2019; Spence, 2016). Being underrepresented at different levels of decision-making, women are often denied the benefits of social and economic development and have limited participation in mining-related consultations (Laplonge, 2017; Thomas, 2020).

The benefits of women in leadership positions have been well established. Research shows that companies with women on board positions perform better. As an illustration, listed companies without women on their boards had a Return on Equity (ROE) of 11,1% in comparison with 23,3% ROE in companies with women on boards (Arnold & Costanza, 2022; Gutiérrez-Fernández & Fernández-Torres, 2020; Hillman et al., 2007; Lückcrath-Rovers, 2013). Research has also shown that companies in the top quartile for gender diversity on executive teams were 25% more likely to have above average profitability than companies in the bottom

quartile (Dixon-Fyle et al., 2020) while companies with at least 30% female executives are more likely to outperform companies that do not have female executives (Brahma, 2020). In South Africa 33,5% of companies reporting on improvement of profits due to gender diversity stated that profits increased between 10% and 15% while 31% reported an increase between 5% to 10% (Women in Business and Management, 2019).

Research has thus proved that gender diversity has benefits beyond the advantages to the women employed; it “is a boon to societies, economies and the enterprises themselves” (Kuykendall, 2023). Research by McKinsey & Company has also proven that for every 10% gender diversity increase, earnings of companies increased by 3,5% before interest and taxes (Chin, 2017; Dixon-Fyle et al., 2020). In a survey conducted in 2019 in 70 countries with 13 000 global enterprises, 57,4% interviewees agreed that gender diversity improves business performance, as illustrated in figure 2 below (Women in Business and Management, 2019).



Figure 2: The business case for change

Source: International Labour Organisation, 2019

The mining sector thus offers a range of potential contributions towards reaching the 17 SDGs (Chicksen et al., 2018). Among these are contributing to the reduction of poverty (SDG1) (Addison & Roe, 2018) and hunger (SDG2) (Milligan, 2013) while ensuring rigorous workplace health and safety monitoring (SDG3) (Chatham House, 2020). At the same time efforts could be made to improve skills by sponsoring scholarships, apprenticeships and

graduate programmes (SDG4) (Barclay et al., 2014).

Mining has the potential to practice gender inclusion by offering equal opportunity and equal pay to women and men (European Bank for Reconstruction and Development, 2020; Hill & Newell, 2009) while ensuring decent work and economic growth (SDG8). These measures would reduce inequalities (SDG10) (Vanclay et al., 2015) and create sustainable cities and communities (SDG11) (Vijayaraghavan, 2011). These changes in turn would contribute to peace, justice, strong institutions (SDG16), industry, innovation and infrastructure (SDG9) (Toledano et al., 2014) and partnerships in order to meet goal of SDG17. Mining directly impacts water and sanitation (SDG6) (Toledano & Roorda, 2014), clean energy (SDG7) (EY, 2014), responsible consumption (SDG12) (BHP, 2020), climate (SDG13) (Moss et al., 2011), life below water (SDG14) (Drew, 2020) as well as life on land (SDG15) (Department of Environmental Affairs & South African National Biodiversity Institute, 2013).

It is evident that all the SDG targets must be viewed from a gender perspective and incorporate an analysis of the gender dimension (Pimpa, 2019). The SDGs will not succeed if the gender blindfold remains (Giannetti et al., 2020).

This transformation in leadership requires relationship and consensus building, communication and working together for a common purpose (Dixon-Fyle et al., 2020; Trinidad & Normore, 2005). This change is of particular relevance to research into the role of women in the business of mining because the opportunity and imperatives for change are there; they are not yet being addressed.

## **2.4 Operational model of the business of mining**

A distinctive feature of mining in South Africa is that operations are mainly outsourced to specialist service providers. The majority of employees on mines are from contracting companies or service providers (business owners) and critical functions on mines are performed mainly by them (Hanlin & Kaplan, 2011). As an example, Figure 3 is an organogram of mining camp site management at Gold Fields Limited South Africa, which outsources the majority of their operations (Gold Fields, 2022). Similar models are followed in all operational aspects of mining. Among the benefits of appointing contractors is to minimise mine owners' capital exposure while optimising mining, plant and equipment utilisation rates and labour productivity as well as scaling of economies through capital

equipment and human resource access. Administrative costs for mines are also reduced because the contractor takes on this function as well (Keel, 2018). The main driver behind sourcing decisions often relates to cost (Steenkamp & Van Der Lingen, 2014). Despite mining houses diluting the burden of responsibility, this situation provides numerous opportunities for business owners to own and expand their businesses.

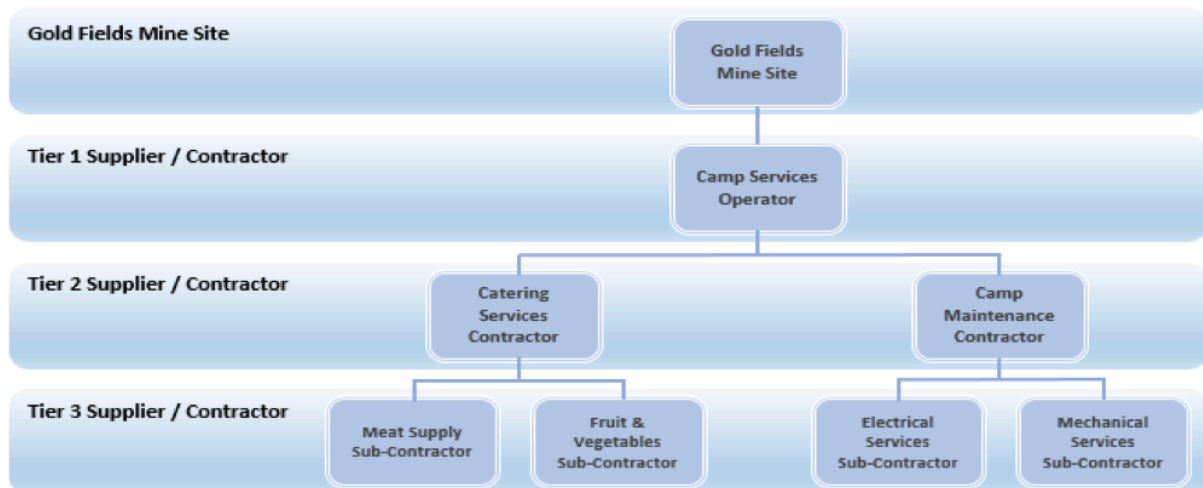


Figure 3: Gold Fields Limited, South Africa organogram of mining camp site management (Gold Fields, 2022)

This practice of outsourcing the majority of mining operations to privately owned businesses is well established, as illustrated in Figure 4 (Quélin & Duhamel, 2003; Statistics South Africa, 2019; Steenkamp & Van Der Lingen, 2014). Figure 4 indicates that, amongst other opportunities, procurement opportunities for private owned businesses have increased by over 20% for site formation, clearance services and prospecting/ exploration by mines. However, not only are very few of these contracted businesses women-led but research has not explored women’s representation in the mainstream economy of minerals and mining at both the mining houses and contracted businesses. (Williams-Elegbe, 2021). There is very little quantitative or qualitative data on business activities that service the mines (Meireles & Edmonds, 2021). This is the gap which this research aims to address.

Type of service	2015 <sup>1</sup>	2019 <sup>2</sup>	Annualised % change
	R million		
Support services to oil and gas extraction	543	464	-3,9
Mining activity	12 860	16 039	5,7
Transport/loading and haulage	6 173	7 840	6,2
Drilling	1 374	1 698	5,4
Draining and pumping	146	241	13,3
Geotechnical services	475	475	0,0
Other support services to other mining	2 045	2 874	8,9
Shaft sinking	991	536	-14,2
Tunnelling	395	233	-12,4
Hoisting	431	115	-28,1
Other mining facility construction services	332	383	3,6
Earth moving/excavating/stopping	682	606	-2,9
Blasting	1 728	1 553	-2,6
Backfill and landfill	83	123	10,3
Site preparation/overburden removal	222	109	-16,3
Other site formation and clearance services	93	259	29,2
Engineering services	3 191	4 104	6,5
Prospecting/exploration undertaken by mines	162	350	21,2
Other services	8 220	7 884	-1,0
<b>Total</b>	<b>40 146</b>	<b>45 886</b>	<b>3,4</b>

Figure 4: Services outsourced by the mining industry, 2015 and 2019

Source: Statistics South Africa, 2019

## 2.5 The legacy of history

South Africa's mining industry plays a key role in attracting foreign investment and creating multinational organisations (Antin, 2013). However, because of the challenges that the industry faces there has been extensive criticism of this economic sector (Burger et al., 2019; Mbazima, 2020). The reasons for this go far back. Inequalities in mining are historically entrenched. The 1911 Mines and Work Act constituted a system that guaranteed highly skilled and high paying jobs, but for white males only, consigning menial tasks to black labourers (Tambe Endoh, 2015). The victory of the white National Party in the 1948 elections saw the birth of the apartheid policy, institutionalising racial inequalities across all economic sectors, including mining (van der Walt, 2006). As a result, the mining industry in South Africa was fundamentally shaped by legalised racial discrimination and a system of migrant labour enforced through pass laws (Mariotti & Fourie, 2014). Men were forced to migrate to hostels near their place of employment without their families, making it impossible for women to be part of this ecosystem (Vosloo, 2020).

South Africa's transition to democracy in 1994 was the result of internal and external resistance movements, economic sanctions and global political pressure (Wilson, 2011). The end of apartheid in 1994 came about from the combined efforts of all ages, nationalities, genders and classes; South Africans therefore know that the concept of working together to end poverty,

inequality, hunger and other societal requirements globally is possible and achievable (Chicksen et al., 2018).

Today, South Africa's mining industry is governed by revised legislation and regulations that are consistent with the requirements of the country's post-apartheid Constitution. However, many challenges remain (Nupen, 2020). This is evidenced by continual crises within the sector, the unresolved standoff between labour unions and the mining industry, macro-economic tension between capitalist and socialist paradigms, regulatory uncertainty and the controversy between mining management and members of the community (Budhu & Scheepers, 2022; Leonard, 2018; Mbazima, 2020; Mokgalaka, 2019). If not in crisis, the industry is in a state of flux where new models are necessary. One potential new model is greater engagement of women in the business of mining as women bring new outlooks and perspectives, provide better mentorship and have the "ability to wear many hats", all while enhancing teamwork (Natural HR, 2021, p. 1).

## **2.6 The role of legislation for gender equality in mining**

Despite the progress made with SDG5, gender inequality has been estimated annually to cost the global economy around \$12 trillion (Ferrant & Kolev, 2016; Woetzel et al., 2015) and sub-Saharan Africa around \$95 billion (Larsen, 2011). Currently, the World Bank reports that only 1% of the \$11 trillion spent on procurement globally was awarded to women and in South Africa only 1% to 6% of government spend of \$94 billion is awarded to women. This is despite women making up 51,2% of the population, owning between 19% and 31% of businesses and the existence of a 40% public procurement policy commitment by the President in 2020 (Gauteng Legislature, 2022; UN Women, 2023; Williams-Elegbe, 2021). It is not clear whether this is because women do not apply or are not awarded the tenders as there is no data available. Current policies in South Africa focus on targets for women in the mining workforce but without any stipulation on the targets for women in leadership positions in mining (Mkhatshwa & Genc, 2022).

This gender equality deficit of women in mining is present in the South African mining sector despite corrective legislative measures (Minerals Council South Africa, 2020). As of July 2019, women's representation in the work force of South Africa's mining industry was:

- 17% of top management;

- 17% of senior management;
- 24% of professionally qualified employees; and
- 18% of employees in the skilled and technical area. (Minerals Council South Africa, 2020).
- 24% of employees in the unskilled area

The Mining Charter was initiated in 2002 and its objective was intended to facilitate meaningful participation of Historically Disadvantaged South Africans (HDSAs) in the mining and minerals industry (Mudimba, 2017). Black Economic Empowerment (BEE) is an economic policy that was designed to advance black ownership and control over the economy (Francis & Valodia, 2021). The Broad-Based Black Economic Empowerment (BBBEE) Act with its BBBEE scorecards that stipulates specific targets on black ownership, preferential procurement, enterprise development, socio-economic development, management control, employment equity and skills development is the implementation of the BEE policy (Balfourkaipa, 2008). The third version of the Mining Charter – Mining Charter 3 - stipulates a 20% shareholding by Black Economic Empowerment (BEE) entrepreneurs, of which 5% should preferably be held by women, with up to 30% of junior management level positions held by women. The stipulations of this Charter provide for a minimum of 30% broad-based, black economic empowerment (B-BBEE) shareholding that should be distributed, at minimum, as 20% effective ownership in the form of shares to a B-BBEE entrepreneur. Of these, 5% preferably should be for women (Leon & Hogg, 2019; Minerals Council South Africa, 2019; Oosthuizen, 2019). While these figures may sound like progress, more than 50% of South Africa's population are women and therefore any and all targets below that level still debar and thus discriminate against women (Moalusi & Jones, 2019; StatsSA, 2018).

Again, this gender inequality has its roots in past labour practices. Prior to 1995, legislation prohibited women from working underground (Business & Human Rights Resource Centre, 2018; Ntswana, 2015). As a result of these and other historical imbalances, women have had less access to education, particularly in the fields of mining and engineering. This has led to constraints on them in reaching and occupying leadership positions (Halliday et al., 2021; Silva et al., 2023). African tradition has also precluded women from working in both surface and underground mining operations (Mokotopong, 2016, p. 2). Because physically strenuous and demanding work is associated with masculinity (Abrahamsson et al., 2014), mining has been moulded in an image and likeness of hypermasculinity, not only due to the number of

men working on mines, but also by their constructed brotherhood, solidarity and sense of belonging (Harris, 2000; Lahiri-Dutt, 2011).

Although the Employment Equity Act No 55 of 1998 promotes equality between men and women and stipulates that there should be no discrimination against employees based on gender (Republic of South Africa, 1998), the UN Women (2023) report indicates that despite measures in place, women earn 21% less than men in all sectors in Southern Africa (Chamberlain et al., 2022; Alarakhia et al., 2023; Miller & Vagins, 2018). It has been found that women exit the mining industry mainly due to pay issues and lack of opportunities for growth, with family commitments and dissatisfaction with working conditions given as secondary reasons (Hunt, 2016; Keller et al., 2023). Investment in organisational policies aimed at wage equality between genders positively influences women's opportunities to reach leadership positions (Gregorič et al., 2017; Halliday et al., 2021; Sharma et al., 2019).

The Mineral and Petroleum Resources Development Act (MPRDA) No 28 of 2002 stipulates that the mining industry must promote participation of historically disadvantaged groups (HDSA) including women. In addition, South Africa's Labour Relations Act finds its legitimacy under section 23 of the Constitution of 1996. Of particular relevance to mining, this legislation places men and women on equal grounds, thereby invalidating legislative restrictions on the employment of women in the mining industry (Botes, 2014). The Mine Health and Safety Act 29 of 1996 makes it mandatory for employees to be issued with the necessary personal protective equipment (PPE) and that all health and safety facilities be provided and maintained in a hygienic condition (Mine Health and Safety Council, 2018). The Minerals Council South Africa, having undergone a number of name changes, established in 1887 is a mining industry employers' organization that was established to support and promote mining in South Africa. It provides strategic support and advisory input to members and acts as a principal advocate for mining to government, communicating major policies endorsed by its members (Minerals Council South Africa, 2023). The mining industry, therefore, has the support of a regulatory framework that provides for the sustainable development of women-owned enterprises (Esteves, 2011, p. 141). In order to maximise benefits from the extractives industry and work towards the empowerment of women and girls in alignment with SDG5, "a holistic approach to gender equality in legislation, regulation, policy, education and training" should be adopted (Ovadia, 2022, p. 1).

## 2.7 Women empowerment and leadership

The WEF Global Gender Gap Report (2023) postulates that without changes to current policies and practices it will take 169 years to close the Economic Participation and Opportunity gender gap globally. Sub Saharan Africa is ranked 6<sup>th</sup> amongst the eight regions and is only likely to close the gender gap in 102 years, as illustrated in Figure 5 (World Economic Forum, 2023).

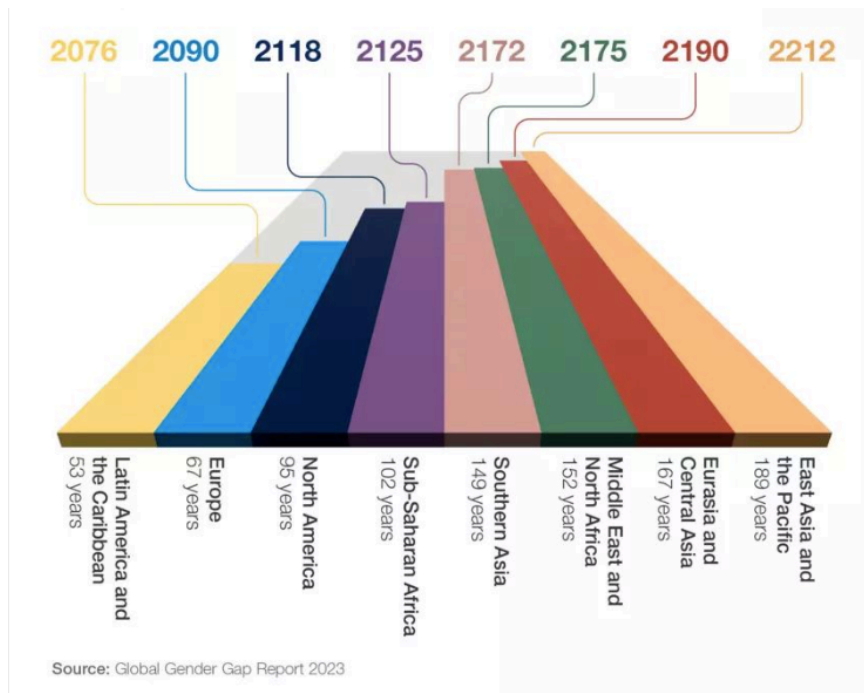


Figure 5: Global Gender Gap Report 2023

Despite there being a strong correlation between women in executive positions and their positive influence on governance, financial, social and environmental metrics, women remain underrepresented (Lückerath-Rovers, 2013). In order to reduce gender gaps in households, economies and societies, women's participation in leadership in business is imperative (World Economic Forum, 2023).

Obstacles that hinder women from entering and staying in leadership positions in mining are the "male-dominated organisational culture, job dissatisfaction, and work-family conflict" (Çaha & Turgunali, 2016; Esteves, 2011). Women also experience challenges that range from toxic masculinity, prejudice and socio economic disadvantages that prevent them from progressing in their careers (Mkhatshwa & Genc, 2022). Globally, 37% of women face sexual harassment, predominantly committed by superiors (Kansake et al., 2021). Other factors influencing underrepresentation of women in mining are gender discrimination, cultural norms, lack of policies, a gender pay gap and fewer role models (Hill et al., 2010; Kansake et al., 2021;

Nimmesgern, 2016; Pugliese, 2021). Female entrepreneurs experience difficulties in accessing finance (Wasiuzzaman & Nurdin, 2019). Financial institutions tend to penalise women when assessing funding applications on the basis of gender bias, cultural and societal factors and other discrimination (Malmström & Wincent, 2018; Ogundana et al., 2021). Institutes such as the UNDP Funding Windows and the World Bank's Women Entrepreneurs Finance Initiative (We-Fi) have started to fund women's initiatives (undp.org, 2024; World Bank, 2021).

An additional factor is that women tend to doubt themselves and their capability as successful entrepreneurs; i.e. they experience the imposter syndrome (Ladge et al., 2019). This is mainly due to entrepreneurship historically being predominantly male. However, in order for women to reach their full potential as entrepreneurs maintaining their identity is important (Ladge et al., 2019). It has been suggested that a gender perspective should be included in the curriculum for energy studies to promote gender diversity and inclusion (Pailman & de Groot, 2022). The results of the use of social media in the public sphere indicated that it had a positive effect with promoting female leadership (Shockley et al., 2020).

Leaders have the ability to initiate change and the power to influence people in order to achieve successful results (Holmberg et al., 2016). Inclusive leadership has the power to overcome challenges of “turnover, discrimination, communication issues, conflict between team members, and low team cohesion” (Arnold & Costanza, 2022, p. 1). Yet despite these known advantages, the mining industry has the lowest number of women on boards in comparison to any other industry. There is an estimated 7.59% of women on boards in the top 100 mining companies and 4% in the top 101-500 mining companies. The representation in other major sectors such as consumer goods (17.35%), consumer services (16.36%), financial services (14.08%), telecommunications (13.35%), technology (11.43%) and oil and gas (8.29%) is higher, as illustrated in Figure 4 (Mining.com, 2018; Sawyer & Valerio, 2018; World Economic Forum, 2023; Mining.com, 2018; World Economic Forum, 2023).

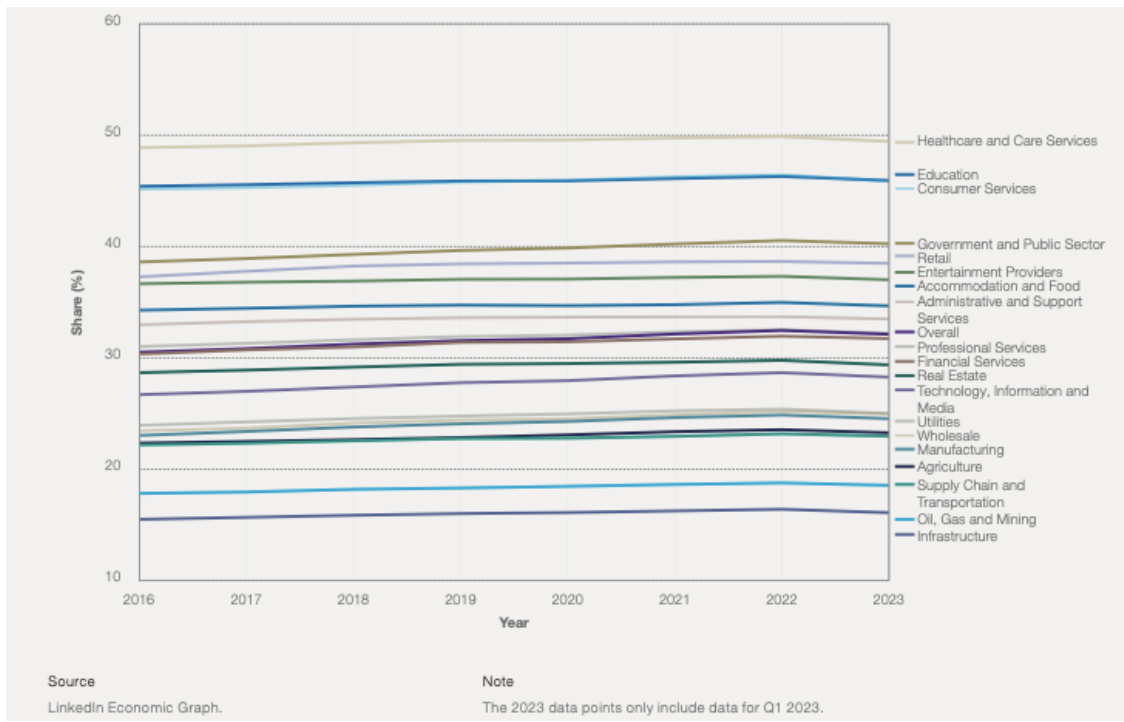


Figure 6: Share of women in leadership, by industry, 2016-2023

In this context, it is encouraging that, in comparison to 2021, the number of women in leadership positions in the mining industry in 2023 has increased by 1.6% for C-suite positions, 1.7% in executive positions and 4.3% in board positions. The result is that 12.1% of C-suite positions, 14% of executive roles and 12.3% in board positions are held by women, as illustrated in Figure 7 below (Kuykendall, 2023).

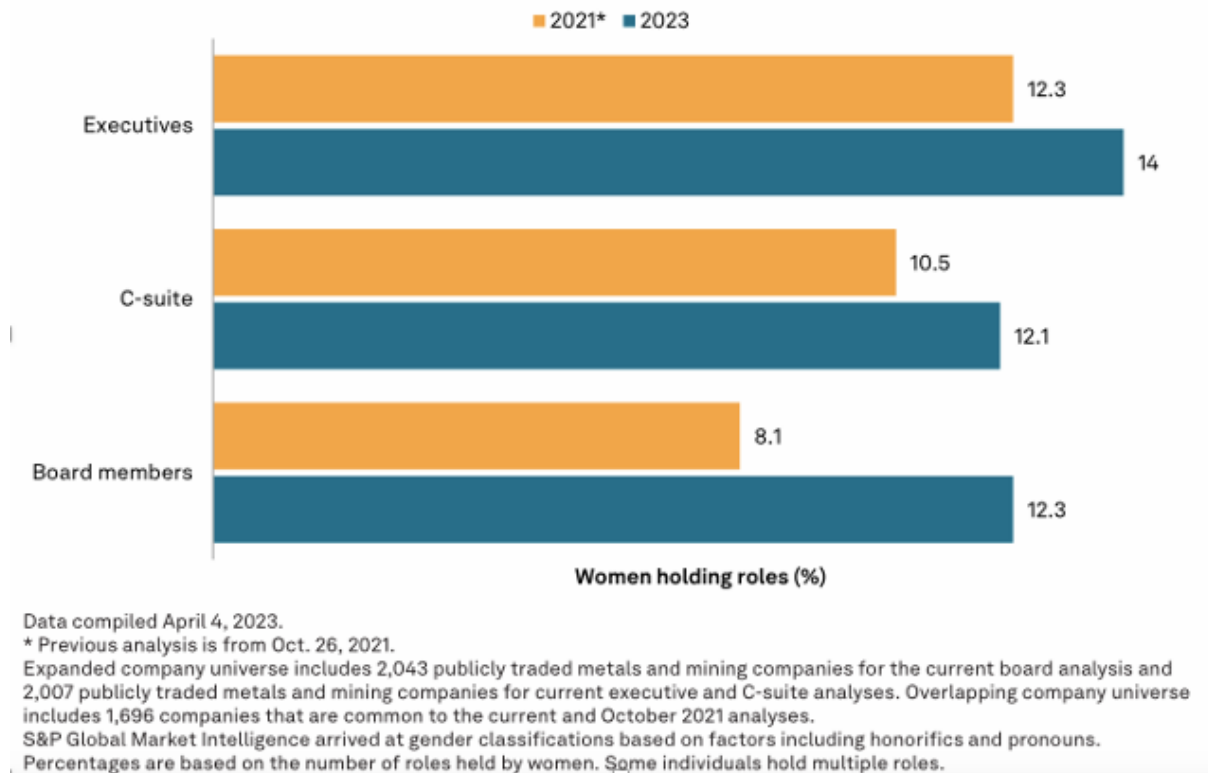


Figure 7: Comparative analysis of share of executive and board roles held by women in publicly traded metal and mining companies

Source: S&P Global Community, 2023

In an attempt to unify women entrepreneurs and professionals in the mining sector, there has been a formation of women’s organisations such as International Women in Mining (IWIM), Women in Mining UK (WIM UK), Women in Mining SA (WIMSA) and Women in Business SA (WIMBIZ). WIMBIZ provides an open platform where the opportunities to tender from all mines can be advertised, thereby ensuring opportunities are widely known while supporting, mentoring and advocating for the inclusion of women in business (Women in Mining Business, 2023). Focussed on the mining workforce WIMSA provides mentorship and training and has committed to measurable improvements in the employment of women in the industry generally and particularly at the management level (Minerals Council South Africa, 2023). WIM UK is also focussed on the labour workforce and advancing women in mining while IWIM focusses on gender equality globally (International Women in Mining, 2023; Women in mining UK, 2023).

## 2.8 Theoretical framework

While rich data may be uncovered during the research process, in the absence of a theoretical foundation “these details may only devolve into a story that cannot be applied to other settings” (Collins & Stockton, 2018, p. 163). Given the paucity of existing research on the role, and potential, of women in the business of mining, grounded theory was deemed the most suitable framework for this research.

Grounded theory was initially developed by Glaser and Strauss in the 1960s. At the time, they found that most social research followed the traditional approaches, that focussed on developing a hypothesis and conducting research to validate it. They pioneered an alternative approach that was based on an iterative process of data collection, comparison and analysis. With the grounded theory approach, findings emerge from the data, instead of from preconceived literature, theories and assumptions (Gehman et al., 2017; Glaser & Strauss, 1967).

Grounded theory is derived from the lived experiences of participants (Charmaz, 2014; Eisenhardt et al., 2016; Gehman et al., 2017) and is an inductive research method as it primarily relies on the data collected to determine the outcome of the research (Burck, 2005). According to Charmaz (2014), “a theory can alter your viewpoint and change your consciousness” enabling “you [to] see the world from a different vantage point and create new meanings of it” (p. 233). The data collected guides the analysis and creation of theory, leading to novel discoveries and making this approach a good choice for this study (Creswell, 2007; Pidgeon & Harwood, 1996).

There are three main grounded theory methods: traditional grounded theory championed by Glaser, evolved grounded theory associated with Strauss and Corbin and constructivist grounded theorists such as Charmaz (Charmaz, 2014; Corbin & Strauss, 1990; Glaser & Strauss, 1967). Constructivist grounded theory is defined as “systematic, yet flexible guidelines for collecting and analysing qualitative data to construct theories from the data themselves” (Charmaz, 2014, p. 1). *“Unlike [Glaser and Strauss’] position, I assume that neither data nor theories are discovered either as given in the data or the analysis. Rather, we are part of the world we study, the data we collect and the analyses we produce”* (Charmaz, 2014, p. 17). Charmaz’ constructivist grounded theory guidelines were followed in this

research study as this approach allows the researcher's world view, values and beliefs to be articulated with the development of the interpretation of the data.

## **2.9 Gaps in the Literature**

The literature review indicates that there has been extensive research in the field of mining and the SDGs (Department of Economic and Social Affairs, 2020; United Nations, 2015a; Yakovleva et al., 2017). The statistics show that in South Africa's mining industry workforce there is a higher representation of women in technical (18%) and professional services (24%) than in management (17%) (Minerals Council South Africa, 2020). Scholarship has started to engage directly with the issues of women in the mining industry (Kansake et al., 2021; Lahiri-Dutt & Macintyre, 2017; Moodley, 2012). However, although organisational scholarship has focused on the challenges of women in the workplace, it has not yet specifically addressed these challenges and identified possible opportunities in specific relation to women in leadership and business in the mining industry. It is clear that studies with regards to women in leadership roles in mining must be developed in order to contribute to changing the paradigm (Silva et al., 2023).

This qualitative study will analyse the challenges faced by women in business in the mining industry. It will do so by collecting detailed information on their experiences, successes and challenges in order to get an understanding of the mechanisms that present barriers to their inclusion.

## **2.10 Conclusion**

In summary, South Africa's mining industry faces many challenges. The industry has historically operated in a male-dominated way. The exclusion of women from mining has been attributed to their physiological attributes, despite 18% of employees in the skilled and technical area being women (Minerals Council South Africa, 2020). The majority of mining operations are owned by men, resulting in lack of control by women over these resources and there are only 17% of women in senior positions and top management in mining industry businesses (Lahiri-Dutt, 2019; Minerals Council South Africa, 2020). Professionally qualified women make up just 24% of employees in the mining industry (Minerals Council South Africa,

2020). Despite the legislation and existing legal frameworks in South Africa that are intended to protect women's rights and enhance empowerment, women in mining remain underrepresented. Women in business and leadership in mining are even more underrepresented whether in formal or informal employment, in management or as entrepreneurs.

This thesis aims to explore why women in the business of mining have not become empowered and how their experiences can be used to formulate strategies for the empowerment of women in the mining industry. Changes made as a result of these insights will create a far more efficient industry while improving the overall sustainability of the industry.

## Chapter 3: RESEARCH DESIGN & METHODOLOGY

### Introduction

This chapter presents the research design and methodology used to explore the current landscape in which women in mining participate, the key barriers and drivers with respect to improving the participation of women, and the changes required to include more women in the business side of mining in South Africa. This research design will address the key research questions outlined in Chapter 1.

To do this, the extent to which women were already engaged in businesses in the mining sector in South Africa was investigated. Interviews with experts in the sector were selected as the best source of evidence because of the value to be gained from insights into the lived experiences of senior leaders in the business of mining.

Expert interviews differ from other types of interviews in specific and significant ways. In order to ensure that the interviews are more meaningful and the analysis is easier, these interviews “require skill and thoughtful design” (Stander & Broadhurst, 2019, p. 23). Discussion on this is provided in this chapter, along with details on sampling strategy, data collection and data analysis and an overview of the theory generation process.

The final sections in this chapter relate to the trustworthiness of the research data and the credibility of this research study.

### 3.1 Epistemological orientation

Because this research was interpreted through the perceptions of various stakeholders, including my own, the research paradigm selected is constructivist, in that reality is constructed and experienced by the participants themselves (Bloomberg & Volpe, 2019; Guba & Lincoln, 1994). Through this process, the interviewer and interviewee co-create an understanding about the world (Guba & Lincoln, 1982, 1994).

### 3.2 Research assumptions

The overarching aim of this research was to interrogate the current gaps, discourse, opportunities, challenges and aspirations with regard to women in leadership positions and women-owned businesses in South Africa’s mining industry. The intention was that the data

collected from the participant interviews would contribute to shaping future and sustainable trends and initiatives in the South African mining industry, primarily through the greater inclusion of women. A further aspiration was that the findings and implementation of this research will provide an implementable road map for the mining industry, enabling shifts towards both gender equality in the business of mining and significant improvement in the practices and productivity in key aspects of mining processes.

### **3.3 Research sampling strategy**

Grounded Theory allows for purposeful sampling techniques (Birks & Mills, 2011). In qualitative research, purposeful sampling is defined as intentionally selecting participants based on their experience and knowledge relevant for the purpose of the study (Babbie & Mouton, 2013; Suri, 2011). Other forms of data collection were considered, such as participant observation. However, in the present context this was neither practical nor valuable because of the confidential nature of the business discussions. The process of collecting, coding and analysing the data happens iteratively, allowing interpretations to emerge (Morse, 2009).

In this study the qualitative research process involved in-depth interviews with a wide range of stakeholders involved in different capacities across the sector in order to capture their experiences and interpretations. Participants were selected because they were most likely to provide substantive responses and answers (Saldana, 2011). The profile of thirty-two interviewees, of which 20 were women and 12 were men, is provided in Figure 8. 43% of the interviewees were under the age of 50. Many had experience of mining globally.

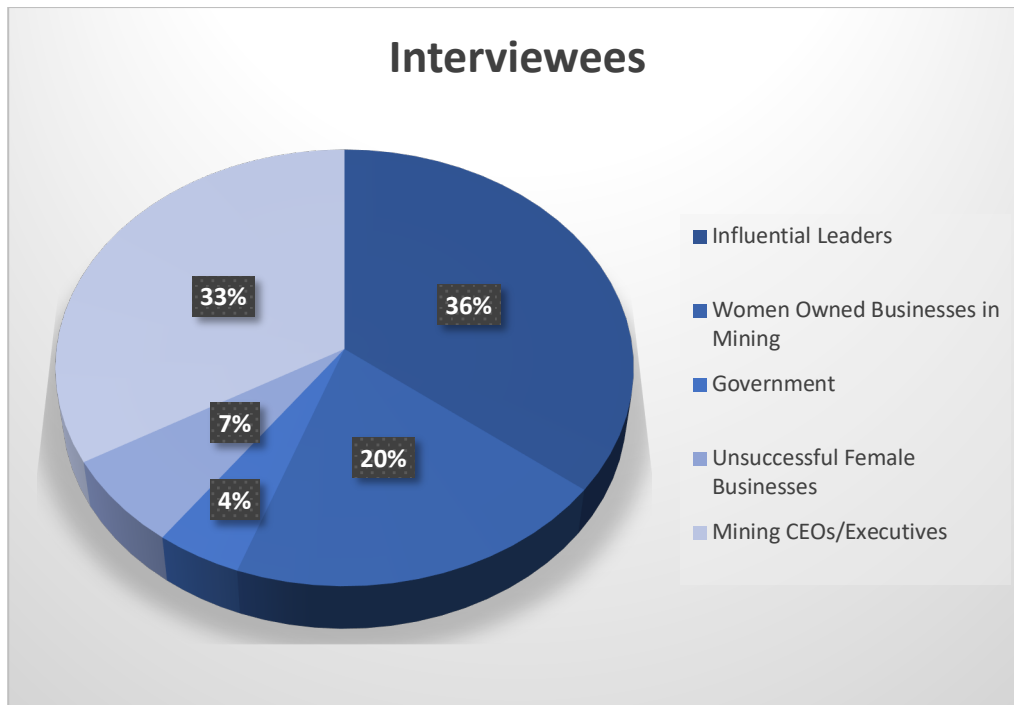


Figure 8: Profile of thirty two interviewees

To increase the diversity of stakeholder views, fourteen CEOs from the mining industry, of which two were women, were included. Nine women owners of private businesses that have been successful in the business of mining servicing the formal sector were also interviewed, as were a further three businesswomen who have been unsuccessful in breaking into the mining industry. Additionally, two influential business leaders from other industries were interviewed in order to obtain complementary insights, again enhancing the variety, richness and depth of data gathered (Noble & Smith, 2014). Among these participants there was an overlap in positions; for example interviewees (mining CEOs and executives, women owned businesses in mining and senior government officials) were also influential leaders in the industry. Table 1 summarises the interviewees' information, gender and experience, attributes which lent depth to the analysis of experience and insights. These interviewees provided an "insider's perspective" as they all had an understanding of the rules, expectations and culture of the business of mining.

<b>Interviewee</b>	<b>Gender</b>	<b>Position / Company</b>
1	Female	Currently Director and Founder of two international women in Mining organisations
2	Male	Retired CEO of two mining houses, Chairperson, Executive Director, Chairperson of Richards Bay Coal Terminal.
3	Male	CEO and five times a board member of mining houses, founder of an events company in the mining industry, Chairperson of SBI (Small Business Institute).
4	Female	Owner of a company providing services and products to the mining industry since 2012.
5	Male	Interim chairperson, Vice President, MD and CEO of two Mining companies.
6	Female	Global CEO, CFO, Chief of Staff of mining houses, listed in the Top100 Global Women in Mining 2018 three times acknowledged as “South Africa Mining Rainmaker”.
7	Male	CEO of a company that provides industry-focused assurance, advisory and tax services to the mining sector in Africa
8	Female	Senior official at Minerals Council South Africa, chairperson of the Mining Lekgotla, Head of International Relations.
9	Male	General Secretary of a national union, Branch Chairperson of a mine, Deputy Chairperson on the Board in the banking sector.
10	Female	Drilling, exploration owner, president and chair of her country’s WIM and IWIM chapters and president of an women in mining association for Africa
11	Female	MD and owner of company contracting to the mines for the last 17 years.
12	Male	Four times CEO of South African and global mining houses, Vice President and Non-Executive Director of two mining houses.
13	Female	CEO WIMBIZ (Women in Mining Business) South Africa, activist, founder of Women Matter.
14	Female	Senior executive and founder of Women in mining business SA, owner-director of a mining resource company, non-Executive Director of a mining company, listed in the Top100 Global women in mining.

15	Female	Female MD and owner of a diamond core drilling exploration company, ex-chairperson of WIMSA (Women in Mining South Africa), patron and board member of WIMSA and WIMBIZ SA, listed in the Top100 Global Women in mining 2018.
16	Male	Three times Director, Chairperson of global listed companies (two in mining), CEO of listed insurance company, member of global executive committee.
17	Male	CEO/ Non-Executive/COO Director/Chairperson, member of the Group Management Committee of numerous mining houses.
18	Male	General Manager of two multinational mining houses with 40 years' experience in mining.
19	Male	Executive head, ex-CEO, founder, President of the Minerals Council of South Africa, founder of one of the larger coal mines in South Africa and Business Leader of the Year 2022.
20	Female	Youngest Managing Director of an internationally listed precious metals mine, board member of a medical aid, a pension fund, bank and an accountancy college.
21	Female	CEO and board member of large Platinum Mining company.
22	Female	Senior Advisor : Gender Equality & Sustainable Development, Diversity & Inclusion.
23	Male	Four times CEO, Executive Director, Vice President of the Minerals Council South Africa.
24	Female	Principal Geoscientist, geological consultant, Ex chairwoman WIMSA.
25	Female	Ex-chairperson WIMSA, Head of Business improvement of a multinational mining house.
26	Female	former female cabinet member in SA; now senior leader in the women portfolio of an international organisation
27	Female	Managing Director of a company that develops and produces materials that assist mining companies to monitor laboratory performance, chairperson of a women in mining organisation in South Africa, a chemist by profession.

28	Female	Strategic Advisor on areas surrounding gender, natural resources, renewable energy, Managing Director Women in Mining UK, social impact investment.
29	Female	CEO and founder of an engineering and mining company, director of WIMBIZ, listed in the Top100 Global women in mining.
30	Female	Mining executive, Woman in Mining task team leader, previous chairperson of Women in Mining, Vice President of Strategy and business development.
31	Female	Vice President of an association for Women in Mining in Africa, President of Women in Mining in her country, Executive Director of a company in mining.
32	Male	President and CEO of an International Council on Mining and Metals, lead climate & ESG analyst, Co-head of Europe, Middle East and Africa, and Corporate Advisory and consulting business experience.

Table 1: Interviewee information

The success of this research methodology depends on access to participants. This could have been particularly challenging in this context because at this level the pool of experts is relatively small (Stander & Broadhurst, 2019). However, my more than two decades of experience in the mining industry placed me in the fortunate position of being able to access this leadership stratum<sup>2</sup>.

Figure 9 (next page) summarises the design and organisation of the research.

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<sup>2</sup> My experience has included ownership of a company specialising in underground roof support and underground ventilation for 23 years and the owner of a patent of an overall compliant to policy for women underground since 2015 (an overall endorsed by the Mine Health and Safety Council and the Department of Minerals and Energy). Additionally, I am a speaker for International Women in Mining (IWIM) since 2018; a patron of Women in Mining South Africa (WIMSA); a director of Women in Mining Business South Africa (WIMBIZ) and I have been recognised as one of the Top 100 Global Women in Mining for being a pioneer in the mining industry.

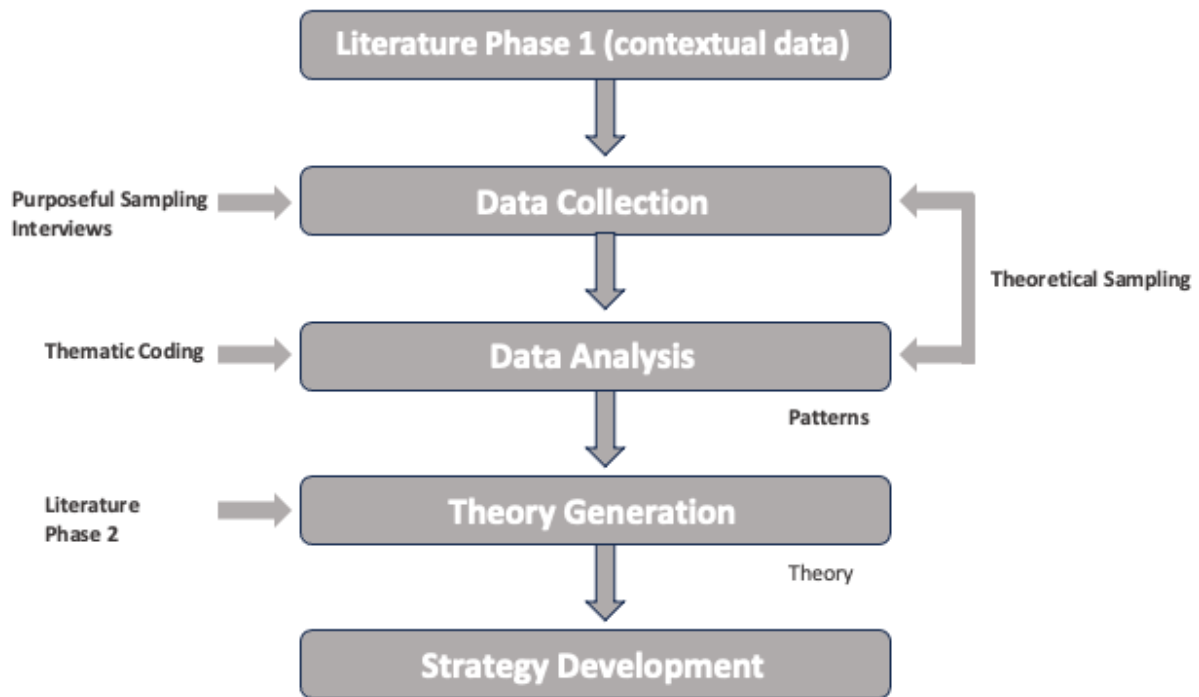


Figure 9: Research design flow chart

### 3.5 Data Collection methods

Semi-structured interviews that generated rich qualitative data were conducted with 32 male and female leaders (Annexure 6). The research questionnaire was drawn up with the aim of guiding the conversations to ensure that the data that I obtained was in line with my research questions, namely: 1) The current landscape of women participating in the business of mining in South Africa; 2) What the key barriers and drivers are with respect to improving participation of women in the business of mining; 3) What needs to change to bring more women into business in the mining industry.

As far as possible interviews were conducted face-to-face at venues convenient for the interviewee. The online platforms of Zoom and Teams were used where necessary. I preferred to collect data personally through face-to-face interviews as that gave me the opportunity to deal with ambiguities around the questions and to maintain consistency among the interviewees (Wood et al., 2011). To ensure confidentiality, individual interviews were conducted as interviewees could have been reluctant to speak openly about controversial issues in the presence of others (Fonseca et al., 2014; Siew, 2015). Most of the interviewees were contacted via email, in some instances telephonically, in order to request interviews. The consent forms

(Annexure 3) with the abstract (Annexure 5) were emailed to the interviewees once they had agreed to participate in this study. Interviewees returned signed completed consent forms before the interviews were conducted. The informed consent form and interview process were discussed prior to conducting the interviews. Participants were approached only once the research proposal had been approved and ethical clearance received.

It is essential for a researcher to prepare well prior to conducting the interviews (Littig, 2009; Pfadenhauer, 2009). This not only assists the interview question formulation but provides the researcher with a reference point from which to engage in discussion on the research topic with each interviewee. In preparation for these interviews, I also familiarised myself with the background of the interviewees via my networks and information in the public domain. All this background preparation and a degree of familiarity due to my experience as a woman business leader indicated to the interviewee that I understood their discourse and spoke the “language” of most of them. This gave the interviewee confidence in me and my research (Bogner & Menz, 2009; Meuser & Nagel, 2009; Trinczek, 2009).

The semi-structured interviews took a maximum of one hour as this was a reasonable time to ask of high-profile leaders. It was important that I stayed within these time limits (Robson, 2002). However, where necessary, I did ask for more of the interviewee’s time. Semi-structured interviews were appropriate as they gave the interviewee the opportunity to respond at length while also providing me with a structure to ensure that I gained insights on all the aspects of the research questions. Interviews were conducted in English and recorded. I also used unstructured, open-ended questions in order to elicit general perspectives and opinions (Chen & Orr, 2009; Creswell et al., 2006). The questions were not prepared so as to stimulate the interviewee to speak with the hope of extracting their opinion and thoughts (Hitchcock et al., 1995; Lofland et al., 2022). These questions proved valuable as they provided me with answers which became the main source of data in this study. I allowed the interviewees to venture further into the conversation and discuss topics that they perceived relevant to the study. These insights are shared in Chapter 4.

Recording the interviews allowed me to revisit the data to ensure that emerging themes remained true to the interviewees’ opinions and the information they supplied. This also allowed me to focus my attention on the interview in process. I chose recording in preference to field notes as taking notes during the interviews could have been time consuming and might

have distracted the participants. A field note was only jotted down when information shared by the participant needed to be emphasized in the analysis (Aurini et al., 2016).

Immediately after each interview, the interview data was transferred to my personal laptop, backed up on personal equipment for storage, as well as in Dropbox, and then transcribed verbatim. Confidentiality was thus ensured (Saunders et al., 2019). Consistent with the principles of theoretical sampling, the notetaking and transcripts also created a platform from which I reflected on the interviews, thus serving as a form of initial analysis. This facilitated and guided further data collection (both in terms of the nature of the questions and the selection of additional participants) and enabled deeper insights, as data analysis during the course of data collection allows the researcher to organize data for a deeper analysis later (Miles et al., 2014).

### **3.6 Data analysis and synthesis**

The framework used to interpret the data in this thesis was thematic analysis. According to Stander and Broadhurst (2019) thematic analysis is regarded as the most likely method to be used for expert interviews because the “phenomena of interest are not as latent (hidden) as in other types of research, for example education research” (Stander & Broadhurst, 2019, p. 143). The data was analysed as a rich description of all themes arising from the dataset without reference to any pre-existing assumptions (inductive analysis) and based on surface level meanings in the data (semantic).

Braun and Clarke (2006) describe thematic analysis as “identifying, analysing and reporting patterns (themes) within the data” (p. 79). Thematic analysis is an iterative process that consists of four stages: familiarisation of the data, coding, themes, and reporting.

The first stage of thematic analysis is *familiarisation of the data*. Each of the thirty-two interviews was transcribed and checked immediately after it had been conducted to ensure that the transcript was true to the interview. This also enabled me to reflect on the interviews and make adjustments, where necessary, for future interviews (Stander & Broadhurst, 2019). In order to familiarise myself further with the data, I read and reread the interview transcripts whilst taking notes of important thoughts in the data. The transcribed text yielded 444 typed pages (181 323 words) of rich data for analysis and coding.

The second stage of thematic analysis is *coding*. This is the process of sorting the data (interview transcripts) into codes. These are “words or short phrases that represent recurrent features or elements of the data that are relevant to the research topic or question(s)” (Stander & Broadhurst, 2019, p. 145). According to Miles et al. (2014), the transcriptions can be read, coded, commented on and analysed by utilising data analysis software such as Nvivo, as suggested by Patton, because it allows for quick and comprehensive access to the entire transcript (Dollah et al., 2017; Miles et al., 2014; Patton, 2014). All double-checked transcripts were imported to Nvivo12 software to make the analysis of data simpler and more efficient as many codes were created and many interviews needed to be analysed (Joffe & Yardley, 2004). This software facilitated direct access to quotes by interviewees, iterative data re-categorisation, coding and recoding (Annexure 7).

First cycle coding remained open, and nodes were generated. Interviewees’ exact words were retained. Codes were assigned to the information compiled in order to link the data collected from the various interviews and this was used for pattern detection, categorizing and theory building (Eaves, 2001). Each transcript was scrutinised line by line, resulting in 84 codes during the first phase of coding with a total of 1312 short phrases relevant to the research topic emerged.

The third stage of thematic analysis is the *establishment of themes*. The first coding summarised segments of data while second cycle coding grouped these summaries, creating a smaller set of categories or constructs (Miles et al., 2014). This process of categorizing similar data helped me cluster the segments relating to a particular theme, thereby establishing a foundation for further analysis (Miles et al., 2014). The identification of themes involved numerous iterations in which themes were formulated, reviewed and refined. These themes provided a further level of categorising, forming the structure for the final report of the results.

Data was not pushed into categories; categories emerged as required by the data. Charmaz (2014) advocates that pre-existing categories should not be applied. Once data has been thoroughly analysed, the fourth and final stage of thematic analysis is initiated – *reporting*, communicating the study’s validity in a concise, coherent and logical way (Braun & Clarke, 2006; Stander & Broadhurst, 2019). A detailed analysis for each individual theme was reported in the context of the research questions. Quotations from the interviews and an indication of the number of interviewees that supported the theme were included (Braun & Clarke, 2006).

These quotations give the reader an idea of what was actually said. Contradicting reports were also included to indicate differing points of view (Stander & Broadhurst, 2019, p. 21).

### **3.7 Reliability, validity and ethics**

Reliability refers to the ability of a study to yield the same results when repeated (Noble & Smith, 2015). Enabling replication requires the collection and reporting of information about the setting or context in which the phenomena reside (Yin, 2014), as well as the recordings and transcripts that are protected and safeguarded. The reiterative coding cycles also contribute to reliability through the replication process during analysis and coding of data fosters reliability and validity (Morse et al., 2002). The necessary conditions for reliability have been fully met in this study.

Validity refers to the extent to which the findings of a study accurately reflect the situation (Noble & Smith, 2015). Cosgrove (2018) distinguishes between interpretive and descriptive validity; interpretive validity refers to the researcher's interpretation of the description and descriptive validity refers to the researcher's version of what is heard and observed (Cosgrove, 2018). This research was impacted by my extensive experience in the mining industry in both the boardroom and the mineshaft. Therefore, I continuously reflected with rigour on my personal opinions and interests in order to reduce bias in the study (Ngozwana, 2018; Van de Ven, 2007). I consciously reminded myself to remain critical through examining and considering plausible, rival explanations when interpreting the findings (Yin, 2014).

In order to ensure “protection of human subjects by making informed consent the centrepiece of regulatory attention” an ethical research process was essential (Saunders et al., 2019, p. 19). An Ethics Application form (Annexure 2) was completed and signed off by the primary supervisor, Chair Faculty EIR Committee, the Head of Department and myself once the research proposal had been approved and prior to data collection (conducting of interviews). This form, together with the guidelines for semi-structured interviews (Annexure 1), was submitted to the University of Cape Town's Engineering and Built Environment Research Ethics Committee for approval. The committee was satisfied that the interview process complied with ethical research practices and the ethics clearance was approved.

All interviewees were informed of the ethics clearance. They confirmed their willingness to participate by signing a research consent form prior to the interview process (Annexure 3). This form informed them that their participation was voluntary and that they could withdraw from the study at any time should they choose to. Interviews were held at times that suited both parties. Interview recordings, transcriptions and reference material supporting the data were anonymised and securely held. This ethics process ensured trust and rapport between the research participants and the researcher (Saunders et al., 2019).

This attention to ethics in turn provided assurance on the reliability and validity of the data that was produced. The following chapter presents this data grouped under the main thematic categories.

### **3.9 Conclusion**

Chapter 3 presented the research processes followed in this investigation. The review in Chapter 2 revealed the gap in the literature on this area of concern so the constructivist paradigm was selected because of the value to be gained from investigating the perceptions of various stakeholders. This stakeholder perception also applies to me, particularly given my role in the industry, so various research assumptions were explored, and mitigating steps put in place. Purposive sampling was used to select the interviewees. The final group consisted of 32 interviewees, both male and female, whose experiences covered a range of positions in and perspectives on the business of mining. Discussion of the data collection and data analysis methods led to the assessment of the research reliability and validity and the ethical principles under which the research was conducted. These methodological processes provide assurance on the data gathered. This is now presented and discussed.

## Chapter 4: FINDINGS

### Introduction

Chapter 3 described the techniques and processes used for the data analysis of the transcribed interviews. Drawing on this analysis, Chapter 4 provides an understanding of women in the business of mining from the perspectives of CEOs and executives in the industry, government leaders, women-owned private businesses (successful and unsuccessful) and other influential leaders (business leaders whose actions and opinions strongly influence the industry). The 100% positive response rate to my requests for interviews was very encouraging, with the exception of South African female CEOs of mining houses who were initially reluctant to participate. However, they eventually agreed to be interviewed and in all categories the interview process exceeded the number proposed. Thirty-two interviews were conducted against the intended thirty.

Using Nvivo12, transcripts were uploaded in order to analyze codes and themes. Each interview was coded manually using this software. The first coding resulted in 84 themes with 1312 quotations. During the second coding, categories that emerged from similarities in the coding were identified. This content and thematic analysis of the transcriptions yielded three thematic categories:

- The Evolving Landscape: Women in the Business of Mining;
- Barriers and Influencing Factors;
- Drivers and Opportunities for Change

There were eleven sub themes (Figure 10).

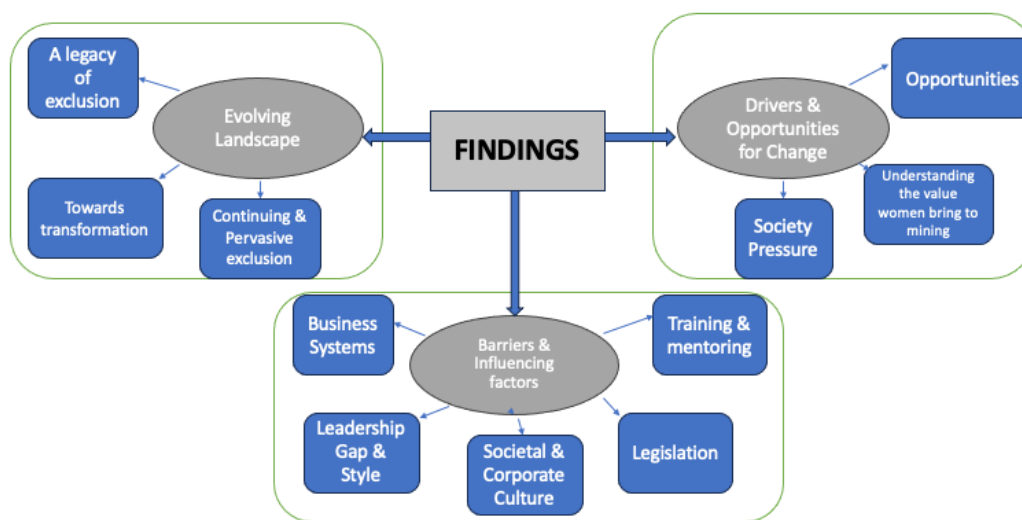


Figure 10: Findings: The three main thematic categories & 11 respective sub-themes

## 4.1 The Evolving Landscape: Women in the Business of Mining

In open-ended questions participants were asked for their views with regards to their thoughts, experiences and learnings about women in business in the mining context. A number of trends emerged, particularly around legacy issues and how women experienced exclusion which led to them feeling disrespected and undermined. As the purpose of this research is to better understand how women contribute to the industry, and can continue to do so, these perspectives provided insights on important aspects under the subthemes of A Legacy of Exclusion, Continuing and Pervasive Exclusion and Towards Transformation (see Figure 11).

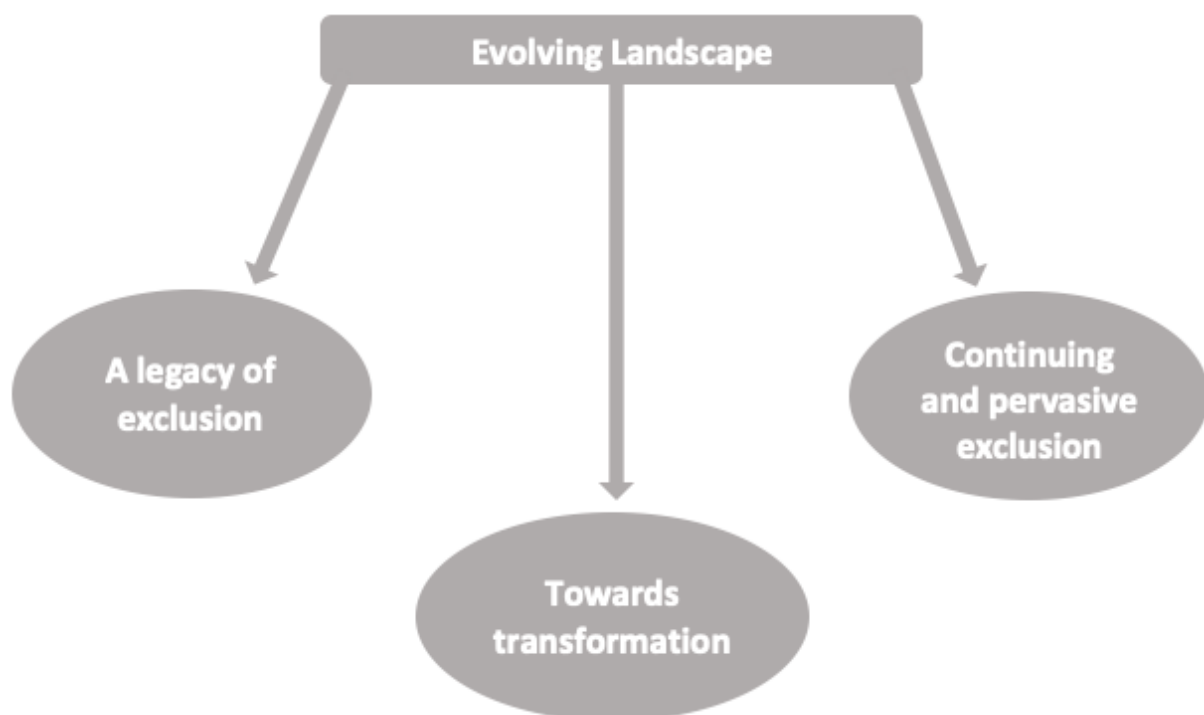


Figure 11: The Evolving Landscape: Women in the Business of Mining

### 4.1.1 A legacy of Exclusion

Many of the problems and the challenges that interviewees experienced have their roots in the politics and history of mining. R7 (male, CEO of a company providing industry-focussed advisory and tax services) summed up the apartheid era and its effect on the mining industry: *“The tragedy and travesty of apartheid, and the exclusion that that resulted in, it's such a pity that this industry that virtually made this country excluded so many and so there's certainly a lot of catch up to be done.”*

Women were non-existent in the mining industry until 1996, to the extent that they were not even employed in housekeeping positions, as confirmed by R9 (male, Board member in mining, labour and banking sector): *“Literally, there would be no women in the shaft I was working at, including domestic workers were male, especially from Malawi, especially working for your senior management. Your bosses would hire the Malawian males to be chefs, to do the cleaning and do everything.”* This situation put men at an advantage, as explained by R3 (male, CEO): *“Yes, my race and my gender.”* R17 (male, CEO at numerous mining houses) agreed: *“I have absolutely no doubt one of the reasons that helped me getting a mining traineeship back in 1976 was the fact I was a male. No women. They weren't taking applications from women.”* R23 (male, former CEO, VP of the Minerals Council) concurred: *“So, I think men have had that advantage over many years, because it's been a male dominated industry.”* R30 (female, mining executive, VP Strategy and Business Development) added: *“I mean, obviously, women were only allowed to get into mining, you know, in the 1990s... So, definitely not equal access at all.”*

R31, a black female leader in the mining industry, commented further: *“Historically there were no black miners, there were no female miners”*, a view with which R19 (male, ex-CEO, President of the Minerals Council) concurred: *“We understood very well that this has been a very male dominated and even then white male dominated, if we have to go even that step further. So, if you are a black female, you almost didn't exist.”*

This situation affected the career choices of R24 (female, Principal Geoscientist) from the beginning. Now a female leader in the mining industry she commented: *“When I started, when I just finished university, women weren't allowed to work underground. So, already at university, there was quite a large career decision that was made for me, because I couldn't work underground.”* Even job titles were designed around men, as mentioned by R31 (female, VP, Executive Director): *“You know, like in Afrikaans, voorman<sup>3</sup>. ....called female voormanne, but you can't call them voorman.”* This patriarchy remains, as expressed by R26 (female, government minister): *“...patriarchy is intense, which has meant that for every*

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<sup>3</sup> *‘Voorman’ is an Afrikaans word for foreman; it was, and in most mines, remains one of the job titles in the mining industry for a supervisor and so confirms just how male dominated the industry is.*

*intervention you make, you have to be super prepared... you always are on your wits about this, the strategy to operate in every minute, and I can tell you, it is exhausting.”*

A consequence of apartheid was that it provided often premature opportunities for growth and promotion of white males irrespective of their experience or expertise, as noted by R3 (male CEO): *“It was an industry that was in gold struggling [sic] and yet it had phenomenal opportunities and we got given opportunities way beyond our readiness.”* R2 (male, retired CEO) did not think that much has changed: *“The whole world is in the same place of failure and we're trying to do the same things we did 100 years ago, bring the same males, bring the same white males”*

These discriminatory views are often historically pervasive. *“People like me, old white men in power, positions of privilege and power, we are the problem. Until we change, nothing else will change.”* (R32: male, President and CEO of International Council for Mining and Metals). R32 gave this at the 2023 Mining Indaba while discussing the issue of women in the mining industry during an interview. In this he is supported by R24 (female, Principal Geoscientist) : *“I think we get back to the whole thing about as long as we have men in command, they're going to be hiring men”* and R3 (male, CEO): *“On the one hand, we were white at the right time and male at the right time.”* In the view of R9 (male, Board member in mining, labour and banking sector) this behaviour is unintentional and he attributes this to: *“Occupational blindness. When you are used to a particular environment, you can't even see what's supposed to be of concern or wrong.”*

R3 (male CEO) thought that history played a role in the challenge of accepting minorities in the industry: *“I think the typical power hierarchy is problematic because in the mining industry you almost need to be like the generation before you for you to be able to step into their shoes. Now if the generation before you were white males it is a transformation challenge, not only for woman, but also for blacks.”*

For many years women tolerated being mistreated as they did not know how else to deal with the situation. R24 (female, Principal Geoscientist) shared that: *“It was your job to get done what needed to be done and if the men were hostile or disrespectful, you just sucked it up and you did the job.”* Through challenges like this, organisations were established to support women in the mining industry. Initially these organisations were not well received, as

confirmed by R1 (female, Director and Founder of IWIM): *“I would also say that when I was setting up Women in Mining in 2006, way before the term Women in Mining, diversity and inclusion...people were laughing me out of the room and that included women, not just men.”*

The organisations were also found to be ineffective in bringing about change, as commented on by R14 (female, Chairperson of WIMBIZ SA) *“...all that we were doing was to meet once in three months and complain. And nothing happened up to now.”* In her view women continued to experience challenges: *“So for me, it's quite a few initiatives that I was involved in, developed, presented to mining companies that they did not take. I mean, even beneficiation (she presented an initiative to improve the value of the ore) it did not go far.”*

#### **4.1.2 Continuing and pervasive exclusion**

The perception on the exclusion of women was experienced by many interviewees. The impact of all these experiences and perceptions was that women were excluded from many of the business opportunities that were available to their male colleagues. The resultant exclusion is based on perceived differences between men and women, as expressed by R10 (female, drilling exploration owner) *“Sometimes people will just feel they'll say to me, Oh, this one is for big boys.”* R29 (female, founder and CEO of an engineering and mining company) commented: *“I'm not treated equally. I think every day I have to prove that I am. You know I can deliver like any other male companies.”* The experience of R11, a woman-owned business contracted with the same mine for 17 years, endorses this: *“Remember, they used to have these board meetings or they have a meeting where they invite all the contractors. And most of the time they'll only invite the men or they'll say, ‘Oh, I forgot to tell you about it.’”* As further evidence of this gender-based exclusion based on misperceptions of competence, she added: *“But they won't discuss the problem or they will make a decision and they won't inform you of what decisions they have made or they won't include you in the discussion about the problem.”*

The experiences of women-owned businesses were equally challenging. Several of the women-owned business interviewees commented that they were willing to settle on just procuring goods and accepted that they would not be included in larger mining contracts. The response of R31 (female, Executive Director of a company in mining) supported this: *“But you [mining industry] cannot argue with me about why you will not give me a supply chain job as a female in the mining industry.”* R12 (male, CEO of global multinational mining houses) explained how women were threatened and bullied if they questioned why they were excluded from

opportunities to tender: *“I mean, she had her life threatened, because, you know, they said don't dig too deep, otherwise, you know, things can happen.”*

R30 (female, mining executive) blamed the lack of attention to women in business on a lack of awareness of the need to do so. It was not company policy to ensure the inclusion of women in the business of mining: *“We are doing it, ...It's not an entrenched blueprint that is followed. It's, you know, in my absence it would not have happened... It's an ad hoc initiative, initiated by somebody who's, sort of, aware of what's happening around them.”*

R1 (director and founder of two International Women in Mining organisations) also noted that there was no initiative to increase the number of women in the business of mining within her organisation: *“But we don't have the space or the team or the capacity to specifically address or be so, we have sometimes to do something specific, say, for women that are business owners.”* R17 (male, CEO) commented that while they do not exclude women-owned businesses, neither do they have policies to include them *“And I'm just trying to think if there's anything I'm aware of that we've done and there's some, certainly not something consciously done. In many cases we don't ask who owns, it's very clear who leads”.*

R18 (male, General Manager in mining) was adamant that access to information on opportunities to tender was available and that he was not sure why it seemed difficult to find women-owned companies, if they existed: *“So, access to the information, I think is totally equal, however you do it. They are looking for these companies. So, if they're there, I'm not too sure why they're not finding them.”.* R23 (male, former CEO and VP of the Minerals Council South Africa) supported this: *“I think that clearly, the majority of participants are still men and therefore the allocation of work unfortunately, statistically, results going to them.”* He added that his organisation was not making a concerted effort to increase the number of women but that there were more women in business now than before: *“I don't think that that's a situation we should allow to continue and we should make a concerted effort to normalise the situation, but I would just say that there are a lot more women-led suppliers and service companies than there were before.”*

Even though many of the interviewees were businesswomen with extensive experience in the mining industry, none commented positively when asked if they felt that they had equal access to business opportunities and many were unsure where to find these opportunities. As R10 (female, drilling and exploration company owner) mentioned: *“There is not like some service*

*that you subscribe to that will be giving you opportunities... if I don't keep going on site all the time to look out for opportunities, it doesn't come to me.*” This is supported by R11 (female, MD and owner of contracting company): *“I don't think opportunities are freely available.”* R9 (male, Board member in mining, labour and banking sectors) echoed the sentiment: *“I don't think that they've got equal access to, especially in the mining space. You have to search for it, you have to hunt for it, you have to dig for it”*. R8 (female, Executive head at Minerals Council SA) suggested that mining companies should display opportunities on their website with an intended quota set aside for women-owned companies. R4 (female, owner of company providing services to mines) suggested that businesswomen should familiarise themselves with the process that each mine follows regarding tender opportunities: *“I think it needs a person to also know how does each and every mine work, so that you can also follow on their way of making things.”*

R9 (male, Board member in mining, labour and banking sectors) also observed that the predominant beneficiaries of business in the industry are men: *“You will find that dominantly service providers in the mining space are male. In terms of ownership they are male.”* R10 (female, drilling exploration owner), often has to supply other male-owned businesses so that they can supply the mines as she is not invited to tender: *“I have to supply the things to other guys who hear about it.”* R15 (female, Managing Director and owner of an exploration company) supported this: *“We don't know even what business is there available for us. We don't know when tenders come out.”* R14 (female, entrepreneur, Chairperson of WIMBIZ SA) viewed the mining sector as one that undermined women. In order to succeed she also had to subcontract to larger companies that were contracted to the mines: *“I didn't play in there even though I provided services, I was coming through the big companies and they didn't know that I was there.”* This is a situation she would like to change: *“And is it supposed to be like that? No, I know I have to be able to go get business, compete.”*

Procurement led by men also needs to be addressed, as suggested by R16 (male, former director and chairman of global listed companies, two in mining): *“I say the whole sector is largely dominated by men, especially at the senior levels and especially in the supply chain. So this is something that needs to be addressed, so that we normalize things.”* However, R30 (female, mining executive, previous chairperson of Women in Mining) was also the only mining executive who confidently said that her company was making attempts to meet this target: *“We*

*are being deliberate about enforcing the 5%. So, I think it's about being deliberate and tracking and holding yourself to account.”*

Because of the challenges she encountered R14 had sustained significant losses as a woman entrepreneur in the mining industry: *“I get very emotional because I have lost money too... Tell us that this sector is closed for women. We will understand that, but don't be calling us under a pretence that you are empowering us.”* Her comment raises the issue of the gap between empowerment in policy and empowerment in action. R22 (female, senior advisor for gender equality in government) explained that the empowerment of women in South Africa is more than 20 years behind where it should be: *“And we should have done this as early as 1995, because when we came back from Beijing [the 1995 Fourth World Conference on Women in Beijing], the world was already in[to] gender and development. So, we have lost over 20 years as women in the democracy where we are not a priority.”*

In R4's view (female, owner of company providing services) she was not given the opportunity to grow despite providing excellent service: *“If I'm giving a service and I am the best, why am I not given that opportunity everywhere?”* R29 (female, founder and CEO of engineering and mining company) commented on the capability that women bring to business if given the chance: *“So that when we now compare, they're actually here, but when we have one here, one here, this woman could possibly do a better job than this guy.”*

The experiences of R20 (female, MD of internationally listed diamond mine) illustrate the point of how hard women have to work within the ecosystem. It took her some 17 years to reach her goal: *“I swear, including myself I never thought I'd get to this position. It was just so difficult. Seventeen years down the line I get what I want”.* However, now that she is at the top, she feels that men are intimidated by her presence: *“I'm still about the only female in the boardroom or in the meeting room. ...So, you've got to deal with these gentlemen or individuals who are, I take it, intimidated by women, especially in the mining industry. They struggle to understand how a mining fraternity can have a woman at the helm.”* She elaborated further on a challenge of having to first demonstrate her competency in order to be heard: *“For example..., you've got to first demonstrate that you're technically competent first, before you even sell your idea.”* R27 (female, MD of mining support company) endorsed this: *“My competency is constantly in question.”* R29 (female, founder and CEO of engineering and mining company) commented that she was often redirected from tendering for structural

engineering to the supply of goods as the mining houses assumed she was not competent enough: *“They tend to redirect you to other service offerings to say why don’t you try supply us with this and that because you see this industry is tough.”*

Many interviewees also talked of the challenge of being heard. According to R21, currently a successful female CEO in the mining industry: *“A male counterpart will either be heard firstly or very often, I find their behaviour might be just robust and rude, and that would be acceptable. When we become a little bit rude, then it’s typical female kind of thing.”* R27 (female, MD mining services company) had a similar view: *“Yeah, I think there was definitely phases that I needed to work through where it was difficult for people to accept, because whilst you had leadership supporting you, you still needed to work and be successful in a broader system. And still today, I feel that sometimes you’re not heard.”* R21 added: *“Well, for starters, definitely, you had to do more to stand out.”*

R24 (female, Principal Geoscientist), recalled situations where she was made to feel inadequate: *“I do think as a woman you are held back...And I think that the most common one for me was to be provided with the leadership position within a team and then halfway through, for it to be yanked away, you know.”* R27, a female director of a mining services company, supports this view: *“It was hard, I mean I would cry in toilets sometimes I would want to crawl under the desk and hide and I think my husband always says to me always fight on fact and not on emotion... I wanted to resign a couple times because I couldn’t handle it anymore I was like being bullied by senior managers.”*

Many women leaders in the mining industry reported lack of support and having to resort to using their authority to get people to perform their duties. A former leader in government, R26 (female, UN Under Secretary, senior government minister) recounted: *“They would start a meeting with the thinking that we are either disarming me by talking about how complicated this industry is and how they know that I don’t know a lot about this ...And I would just quickly say, I have a job to do here and I want results. I don’t know every step what needs to be done, but I know the results that I want... You are the experts in the industry. You have to figure it out and I’ll bring my team from the department to work with you.”* Even with the authority of her position in government she encountered resistance based on her gender: *“So, I had to put my foot down within my department and then in the industry. So, I would say, I would deploy my guys to work with you and these are the results that I want.”*

Exclusionary practices were not restricted to those perpetrated by men on women. Not all women were willing to search for opportunities within the industry, as mentioned by R4 (female, owner of an established service company): *“What is it that you are doing to make sure that you get information. It's a two-way thing.”* Some interviewees commented on a belief by women that opportunity is owed to them, as expressed by R24 (female, Principal Geoscientist): *“I'm finding that and there's a twofold thing to this. So, the one is like, women are more militant I think about, ‘Oh, you have to employ me. I'm a woman. You have to make my workplace better for me’.. She went on to observe that: “It's almost as if women go, well, look, I'm doing you a favour, like, joining your company or joining the mining industry. So, now, turn it around, so that it's the way I want it to be.”*

R16 (male, former Director in mining industry) had encountered situations where women do not support each other. He observed that: *“There are instances where there is a board vacancy, you ask colleagues to recommend potential candidates, you'll find the female colleagues will recommend male candidates, and then it's the men that recommend females....sometimes some women once they get there, they want to shut the door for others.”* R24 (female, Principal Geoscientist) held a similar view: *“A lot of women just pull their female colleagues down.”*

A point widely raised is that women often feel the need to look like and behave like a man in order to feel included and be successful: *“It's so easy to fall into the trap, is, I'm in a man's world. I've got to look and behave like a man to do a man's job”* (R6: female, global CEO). Many women felt like imposters, as explained by R6: *“You know, as female leaders, automatically we take on the imposter syndrome jacket the minute we sit in powerful positions as well”*. An educated women leader in the industry, R31 (VP Women in Mining; Executive Director) still experienced the imposter syndrome despite having all the prerequisite qualifications to be an entrepreneur in the mining industry: *“However, because of the way they view me, ‘Why is this woman leading me?’, immediately I put on the imposter syndrome, because a cultural norm comes up.”* R2 (male, retired CEO) echoed this: *“There is also a culture of thinking that they [women] don't belong here.”*

Many women entrepreneurs tend to give up, as commented by R14 (female, Chairperson of WIMBIZ SA): *“This relationship doesn't work for me. I'm gonna leave. We shouldn't. That's why we have engineers, mining engineers, working at the bank because you fighting, you get*

*tired, but we shouldn't. We have to fight and actually challenge the status quo.*” R25 (female, Head of Business Improvement at multinational mining house) agreed: *“I think we have to find ways that women who own businesses in the mining industry are taken seriously.”* On this recurring theme, R29 (female, founder and CEO of engineering and mining company) felt that because she was often the only woman in the boardroom she was not heard: *“Because I’m a business owner but as a women my decision-making is limited because when you sit in a boardroom you only find males and sometimes they don’t listen to your voice so you end up doing what they say even though you can come up with better solutions to finish the project so those are my limitations.”*

R4, a highly experienced businesswoman in the mining industry, insinuated that male-owned businesses were given preferential treatment: *“You as a female, you’ve got the same job as a male, but a male will want, it’s an example, he’ll want a prepayment. And you as a female, you go and want the prepayment, you won’t get it...But it’s like, every day they will want to embrace the men than the women.”* R10 (female, owner of a drilling and exploration company) was of the opinion that women business owners were excluded because the males in the industry did not know how to deal with them *“I think that sometimes people don’t know how to deal with you. And when they don’t know how to deal with you, they would rather not deal with you.”*

R20 (female, MD of internationally listed diamond mine) supported this view: *“In any organisation or any meeting when you’re proposing something new and there’s change, people struggle. So, when they [men] see a dynamic that they’re not used to, it’s changed for them. So, automatically they’re on the defence before they even come to you.”* R25 (female, Executive in multinational mining house) experienced similar challenges: *“You know when I stepped into the role of MD. I had so many people watching, waiting for me to fail and I think the first year of my role was all about almost trying to prove people wrong.”*

R6 (female, global CEO) felt that women may contribute to their exclusion because they do not feel like they belong: *“And then sometimes I think why women don’t respond is because, this whole imposter syndrome, etcetera, we feel that we don’t belong.”* R22 (female, Senior Advisor) suggested that women were expected to step back at a certain point: *“Because a woman at some point is expected to know her place. And is also expected to know when to back off and just take instructions. And it’s so ingrained that when you don’t do it, you actually are rubbing even some female colleagues around you the wrong way.”*

The proposed Mining Charter (Chapter 2) stipulates that 5% of procurement spend should be allocated to women and youth. Despite this, R30 (female, mining executive) admitted to not providing opportunities to women for large contracts: *“We’re not giving them that big mining contract. It’s still the, call it the “rats and mice”. You know, not the big deal breakers, not something of substance.”* R10 (female, drilling and exploration company owner) said she had been told that the larger tenders and contracts are intended for male-owned companies: *“It’s a business for big boys. So I get small business, but I don’t get contracts.”*

A third of the interviewees commented that women are often excluded from the core mining business, as mentioned by R14 (female, owner-director of a mining resource company): *“Women are undermined as suppliers in the mining sector.”* The business opportunities outsourced to women are mainly tangential to the actual business, as described by R3 (male CEO): *“The cleaning and catering .... of course, catering is a perfectly legitimate economic activity, but to assume that it’s all that woman can do is inherently stupid and insulting.”* R9 (male, Board member in mining, labour and banking sectors ) corroborated this: *“You’ll find that where women tend to come in to provide certain services are soft services, secretarial services, cleaning services, you know. You don’t see them being deliberately in the core of the business.”* Four interviewees claimed that even these opportunities were denied to women. R28 (female, Managing Director of an International Women in Mining organisation) said: *“Women-owned businesses ... actually if I think about all the food suppliers for mining companies, they’re owned by men. So, I’m actually struggling to see how the mining sector has really looked at their suppliers or their service providers and how inclusive they are there from a gender lens”.* She further commented on traditional CSR programmes: *“Oh, we’re doing this, like, women’s sewing initiative.” Nice. It’s nice. It’s lovely. They’ll make all the things for the mines. Great, that’s good. Who’s running it? Are we just teaching women to be workers or are we teaching women to be able to lead in their own work and have agency over their own work and to manage their own work?”*

In acknowledging that the working environment is high risk, many interviewees commented that lack of experience prevented work from being awarded to new companies and that this further affected the inclusion of women. As R20 (female, MD of internationally listed diamond Mine) said: *“So, when women are in the industry and they’re not given the opportunity, they can’t produce that experience and automatically they’re already at a disadvantage.”* R30

(female, mining executive) agreed: *“They don't have a track record, unlike a male business. So also, track record speaks volumes”*. R27 (female, MD of service company) was not aware of women-owned businesses: *“One of the biggest challenges is that we don't necessarily know all of the female owned businesses that are applicable to our industry.”*

R11 (female, woman-owned business) summed up the difficulty women in business faced entering the industry: *“Yeah, it is very tough.... they will not accept women just like that.”*

Considering ways of being more inclusive, CEOs were asked what they thought were the strengths of their businesses in terms of supporting women-owned businesses in the mining industry and how such strengths could be augmented and enhanced. R20 (female, MD of internationally listed diamond mine) said that her organisation had other priorities and had not yet dealt with developing women in business: *“We're focusing on the workforce at the moment... We've done well on the value chain, but specifically looking at women-led businesses, we haven't really done very well on that.”* R7 (male, global CEO of service company) thought that the historical racial inequality was still diverting focus away from current gender inequality. He mentioned that the inclusion of women *“would probably be overshadowed and upstaged”* because the industry still faced the challenge *“to provide greater equity and more opportunities to black owned businesses and enterprises”* which was a legislated requirement..” R18 (male, GM in mining) did not think prioritisation of women was possible.

Where leaders were aware of the need to advance the inclusion of women, change did happen. A male global leader in transformation of the mining industry, R17 said that they do not discriminate against women-owned businesses. However, despite extensive experience of 63 years as a leader in the mining industry, R17 was not aware of any initiatives that supported women-owned businesses and added that gender had brought in other issues: *“I'm certainly not aware of us taking a different view of a company owned or led by a woman. Gender's the big one, because I think it's such a big issue that also has elements of religion and other issues.”*

R23 (male, former CEO) made it clear that planning and process were required in order to change the culture and include women: *“An initiative like Women in Mining is a changing culture that's needed... So, it's not just a decision we are going to include women and everything just happens. There's a lot of things to do”*. Allied with this, R16 (male, former

Director of global listed companies) also raised the point of lack of access to finance for women: *“The problem also is the access to finance at the general level in the country for a woman is a difficult issue.”* This point was supported by R29 (female, founder and CEO of engineering and mining company): *“Another limitation is that I don’t have access to funds”* and also R20 (female, MD of internationally listed diamond mine): *“And there needs to be funding opportunities from the banks all the way to the government to say, okay, we will sponsor this here.”*

Race has also played a role with the challenges that women face. R6 (female, global CEO) commented: *“Firstly, no one wants a woman of colour. They don’t want an intelligent woman of colour who’s an engineer next to you either. So, I think for all of those reasons there was a lot of, you know, if I could be suppressed longer, I was.”*

R27 (female, MD of a service company) spoke of situations where comments about her gender are made in an attempt to ridicule her: *“He used call me out on things to the point where it’ll be like – is it that time of the month, is that why you being so passionate about this. Or don’t you want to go out and make some tea for everybody while we have this quick discussion you get this bullshit like that.”* She added *“I am talking about this happening last week. We have been through this journey and it has been so many years and I still have to prove myself as the valid choice as MD of this organisation.”*

As a black female executive in the earlier days R14 felt excluded to the extent that she left the industry after two years: *“It was only your peers at the executive level when you’re sitting with them - they would make you feel like you are a woman and you’re black, and we’ve been here and you can’t come tell us what to do. But in the office, we put together strategies, procedures and documents that never got implemented. So two years was enough for me.”* R30 (female, mining executive) was similarly challenged: *“When I was starting to be a miner, so I’ve gone to varsity, I’ve graduated cum laude and you’d think, oh, okay, that would matter. But when it’s time to then get appointed to a section, ... their bias said, “No, she’s female. What does she know about mining?”* Only by persistence and assertiveness was she eventually able to get a position: *“I said, ‘Well, I’m here, you know. If you really want to make a difference, please hire me.’ And he did.”* but this achievement came after months of R30 sitting waiting because of the bias held by managers at various mines.

*“Nothing about us, without us.”* asserted R9 (male, Board member in mining, labour and banking sectors). He was clear that women have to be present when discussions are being made about them: *“So, then you don't have a caucus, a group of men caucusing and deciding which woman must be in, which woman must be out.”* This view was supported by R14 (female, owner-director of mining resource company) who was caustic about how poorly women were represented during the current Mining Charter deliberations: *“I was shocked to the core when I found out that women are not represented the way that I thought they would. The Charter was silent on women.”*

All these factors have affected the experiences of women in the business of mining. They thus face *“a huge amount of challenges”* and feel that *‘you almost have to prove your stripes even 10 times over’*, as mentioned by R25 (female, executive in multinational mining house). She cited the experience of a colleague who went to great lengths in her attempt to grow her business: *“She sent an e-mail directly to [the director of a multinational mining company] saying ‘Why don't you want to employ my business?’... And he actually replied and said, ‘I'm going to be at the Mining Indaba so come and speak to me. I'll have a meeting with you.’ She was highly pregnant at the time, and she induced her birth so that she could have the baby and then still go to the mining indaba.”* R29 (female, founder and CEO of engineering and mining company) emphasized the challenges faced by women: *“But it doesn't come easy. I have to sacrifice other things. Like sometimes I spend three weeks without seeing my kids and yeah, it's tough here.”*

Summing up the difficulties that the industry presents to women, R9 (male, Board member in mining, labour and banking sectors) claimed that women were often overlooked or excluded irrespective of circumstances: *“Even if there's resistance based on numbers, based on capabilities, based on skills, we have seen highly skilled females in the mining space who are overlooked.”* To deal with these challenges R10 (female, drilling and exploration company owner) suggested that more awareness should be created around the inclusion of women in the industry: *“But I think that there should be more awareness created that woman come to participate, that there is no there is no reason why being female should be a challenge.”*

### 4.1.3 Towards transformation

*“I’ll accept there’s a long way to go.”* (R12: male, CEO)

Progress towards integration of women in the workforce has been made, despite being very slow. R23, a male CEO and recognised as a champion for women in mining in South Africa, commented: *“In the past it was 99% men, which is why we started with the women in mining initiative at 13%. I think within our company we are now starting to approach 15, 16 (percent of women in the workforce). So, we are making a conscious effort to sign on and award bursaries and learning programmes to something more like the demographics of the country”*. R7 (male, global CEO of a service company), seconded this view: *“And to be fair to the mining industry, I think it has come a long way. On the labour side it does deserve some credit. Uh, even though, you know, there are those who will still criticize it for the slow pace of transformation.”*

There was general agreement that progress towards the integration of women in mining was happening, despite this progress being very slow *“So, I would not completely throw out the baby with the bath water. So, I think the tools that we’ve used have taken us from a very, very low level to I think the mining industry claims 14%.”* (R3, male, CEO of a major mining company and business owner). To illustrate that there have been changes R27 (female, Managing Director of a service company) considered that there was now more interaction between genders at conferences: *“Umm whenever we go to conferences and that sort of stuff you can see more of the co-mingling and male and female type interaction.”* This interviewee was also of the opinion that more emphasis should be placed on both genders working together: *“So I think it’s changing slowly I don’t think it is necessarily enough that exists together.”* The recent experience of R25 (female, executive in a multinational mining house) supports the view that change is happening. She attended a Women in Mining event at what, until this year, had been an all-boys club for miners and noted: *“I went to first Thursday club two or three weeks ago and if that was in the late 80s, nineties, OK, women wouldn’t have been allowed in that club... and we had a Women in Mining South Africa event there, which was equally attended by women and men.”*

However, even with this conscious drive to include more women at all levels of mining, more than half of the interviewees agreed that the environment was not conducive to this. R9 (male, Board member in the mining, labour and banking sectors): *“The environment is still very*

*conservative.*” R3 (male, CEO) added : *“I think systemically, I think it's still a very un-woman friendly place. Everything. The culture, the habits that, you know, the change houses.”* Despite these incremental shifts, according to a global mining body only one of the 26 CEOs is a woman. This was confirmed by R32 (male, President and CEO of the International Council for Mining and Metals, co-Head of Europe, Middle East and Africa) : *“There are more people in the group of 26 with the name ‘Mark’ than there are women. So, we have one woman out of 26 CEOs. This is the global mining body.”* The perspective from the public sector was also not encouraging. R26 (female, UN Under Secretary, senior government minister) noted that the mining industry was not very appealing for women despite a career there being fulfilling: *“Well, obviously in the first place, we have to encourage women first, so that women want it. It's not the most attractive industry...And at the same time, if you do well, it can be very fulfilling. So, you have to, sort of, project that.”*

Furthermore, despite many encouraging experiences that showed how the representation of women in mining had improved, there was less evidence on how the role of women in the actual business of the industry had advanced. Women were better represented in some departments than in others, as noted by R3 (male CEO): *“I mean, HR is probably one of the departments in [the] mining industry where we took a better representation of women.”* Of the thirty two interviewees, only R21 (female, mining company CEO) could report on any progress within her organisation with regard to women in business. This was due to procurement programs that focussed on a minimum requirement of including women and youth in processes which extended beyond just the company: *“ We do have our procurement programmes when we do capital allocation. There's very specific focus on women and youth. The recent energy projects that we for now host has got community pre-carry, but there's also a minimum requirement for youth and women involvement.”* The challenge is to build on progress and for that women need to become more visible.

R17 (male, CEO) explained how the company had increased the number of women working there by reacting to natural attrition and had done so without male counterparts feeling that their positions were threatened: *“We'd be hiring two women for each male in those top roles... it's on the basis of that at least 50%, you're getting at least 50% in the roles. It's probably more like 60%, 60, 65%. So, it's working it out, but it's not seen to be threatening. We're reacting to natural attrition in the workplace.”* Following on from this, R25 (female, Executive in multinational mining house) added her support for women in the workforce: *“I think we're*

close to 30% women at this point in time. But of course we want to get some more woman. So we have to always look at female candidates first.” She further explained: “I think because there's quotas and there's targets we're trying to achieve in terms of women in mining, ...female candidates get preference in HR interviews. Because we have to because of employment equity and all that sort of stuff.”

R2 (male, retired CEO) drew comparisons with the success of women in other industries: “look at Norway, in their turnaround for Covid programmes and others with a female prime minister,” with which R16 (male, former Director) agreed: “It's about how things should be and its 51% of the general population comprises women. Then it's a no brainer that we should seek to reflect that at all levels of our organisation, and also, more importantly, in our supply chain.”

## 4.2 Barriers and Influencing Factors

Analysis of the interview data revealed a number of barriers and challenges in terms of achieving greater equity for women engaged in the business of mining. Discussion provided insights which can be grouped under the five sub themes of: Leadership Gap and Style; Societal and Corporate Culture; Legislation; Training and Mentoring; and Business Systems (Figure 12).

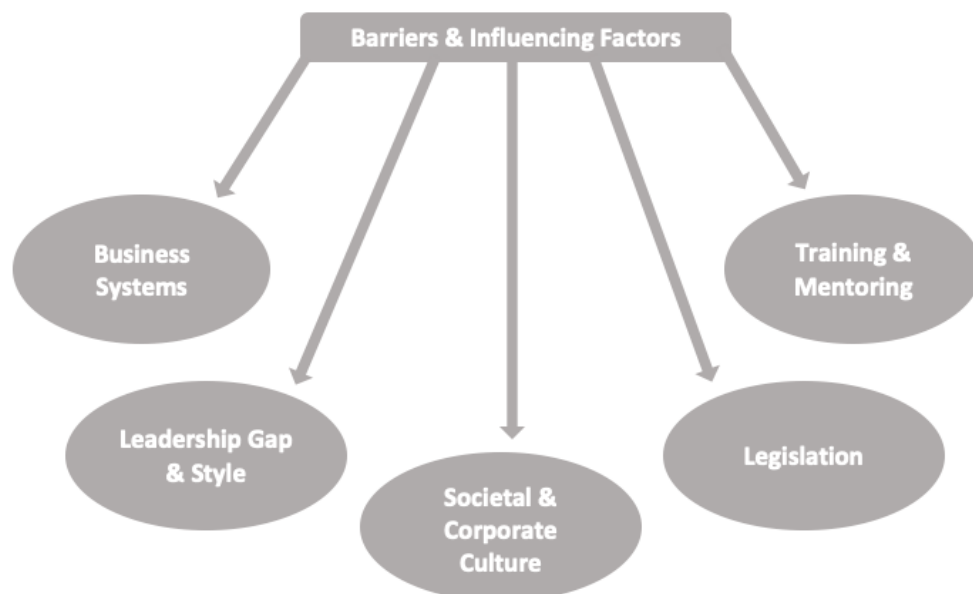


Figure 12: The Need for Change: Barriers and Influencing Factors

#### 4.2.1 Leadership gap and Style

Interviewees raised many pertinent issues related to the role of leadership in supporting the inclusion of women in the industry. According to R30 (female, mining executive), one of the difficulties in representing women is the fact that there are so few women in leadership: *“I mean, if you've only got about one woman in Exco, it's going to be a struggle. So, we definitely need more women in leadership positions to effect that change.”* Both R18 (male, General Manager) and R20 (female, MD) mentioned that they were not aware of many women-led organisations: *“So, that's also one of the hindrances that we are seeing, where there's not a lot of female-led organisations right now that we can actually deal with.”* (R20).

R25 (female, Executive in multinational mining house) supported this: *“You have women in strategic positions. The handful of people that we have in these strategic positions really need to make sure that they make their presence felt.”* R15 (female, MD and owner of exploration company) made the point that women currently in leadership positions could assist the process: *“Our female leaders in the bigger corporates - it would be great if they could also be supportive and carry this baton because we have so much hope in them as well.”* R24 (female, Principal Geoscientist) supported this: *“I suppose we would have to get more women in leadership positions within the mining industry who can make the decisions that women companies are as good, if not better than male run companies.”*

Interviewee 14 (female, owner-director of mining resource company) spoke of Cynthia Carroll who was the first woman to lead Anglo American, globally the fourth largest mining company. Carroll used her considerable influence to actively advocate for the inclusion of women in mining. The impact of her work was summed up by R14: *“She recognised that Anglo had to transform... it was probably the toughest male organisation given the history of South Africa and all the issues there. So, it was a pretty tough call, but she started the change, to be fair.”*

R6 (female, global CEO) explained that even though she might have been employed to fill the quota, what mattered to her was that she was there and that she was going to make the most of it: *“It doesn't matter how the door was opened. I'm through the door.”* She took every opportunity and navigated her way successfully: *“The minute the power shifted, boy, did I take that gap and I held people to account.”* She acknowledged that it took hard work and a

supportive system to succeed, having observed her previous, female CEO and mentor: “...it's going to take an ecosystem to support and how she had to work so hard on that ecosystem to make it work.”

R 22 (female, Senior Advisor) pointed out that, due to history, the leadership narrative has been written from a male perspective: “*And I guess the script of leadership has been written from a male perspective... We have never allowed women to lead.*” Once she became a leader, R6 (female, global CEO) found her legitimacy being questioned: “*Your legitimacy is really being questioned, because now you're in such a minority.*”

Women who were in leadership roles often found their legitimacy continuously questioned. R6 (female, global company CEO) explained: “*So, because I was already there, I was also being pushed into certain roles so that I could make the quota... Do I help the photograph right now for them?*” The effect was personally undermining: “*A lot of people used that to their advantage to say, 'Well, you don't belong here and you're just helping (a multinational mining company) meet their quotas.' I think that kind of questioned the legitimacy.*” R25 (female, Executive in multinational mining house) agreed, adding that she had to work harder than her male counterparts: “*You have to almost prove yourself where if a guy has done four years of field training, that's enough. But for a girl, you have to do like six to seven years to really show that you've really know what you're talking about.*”

Many other women agreed. One example is R30 (female, mining executive): “*You are constantly having to prove yourself,... It's that constant expectation of not just delivery, but of over-delivery*” also R27 (female, MD of a mining services company): “*I continue to work harder with my male colleagues and I have to show up you know bigger, better and bolder.*” R8 (male, executive head at Minerals Council South Africa expressed a similar view: “*It's more difficult, I think, for a woman to prove that she can lead. And so, she must be exceptional for her to be recognized.*”

Interviewees also indicated that leadership, regardless of gender, can play a key role in promoting gender equity. R20 (female, MD) believed that the executive sponsorship by the CEO had been a significant factor in her career trajectory: “*The CEO at the time, who had just come in, gave me that opportunity to become the managing director of this organisation, giving me the privilege of being the first female to run a diamond mining organisation in Botswana.*”

*And then that made me the youngest in the world.*” Five participants expressed pride in what drove members of minority groups to succeed. R2, a black male CEO, was one of these: *“I think one of the real things that happened to me is somebody who trusted and believed that I could do it and somebody who actually took a bet on me and gave me a chance.”* R19 (male, executive head, ex-president of the Minerals Council of South Africa and ex-CEO) explained the process they followed to successfully appoint a female CEO. The focus was on selecting someone from within the company: *“I was ready to step down that the board actually said, ‘But why are we actually going out? Why do we need to go out? We’ve invested almost 10 years on this lady building her, grooming her, her learning, her getting the next position on merit’.”* He added that change needed to start at board level: *“It’s got to be at the board’s agenda. In our social and ethics committee of the board, D&I is an integral part of its strategy, being driven at the board level right from the top.”*

R24 (female, Principal Geoscientist) raised another key challenge that supports these views: the effect of different leadership styles where a woman’s style may not be appreciated or even acknowledged. She recounted: *“Because even though you want to lead as a female and be natural, there are times, you almost step into the role of a male leader and be more assertive and more aggressive and it leads to a bit of a disconnect.”* With experience she has reclaimed her more authentic style: *“So, the older I’ve got and the more experience I’ve had in leadership, the more I’ve reverted back to my natural leadership roles and just trusted that that would be enough to get my team to where they need to be.”* For others, the disconnect in styles had serious ramifications. R6 (female, global CEO) mentioned being *“overlooked for training courses, perhaps not invited to certain meetings”* and R12 (male, CEO of global company) spoke of the experiences of one of his colleagues when she was assertive: *“And I think one of the reasons why she quit at X was that she was a woman and she’s really an assertive woman... A lot of men still battle with that.”*

Many interviewees who have succeeded despite the challenges which their gender might have raised supported the view that leaders needed to make the change. R21, currently a successful female CEO, claimed that her engineering qualification placed her in a unique position: *“As far as the skillset I had at the time, which was still fairly limited early in my career and the environment that was shaping up to say, well, we need to focus to get diversity into the workplace.”* She emphasised the value of having had a good support system: *“...they gave me two of their strongest superintendents, and it was just beautiful human beings who would not*

*allow me to fail. And I learned so much from them.*” R12, an experienced male senior executive in mining corporate, saw that it was the responsibility of senior executives to start the process of including more women in the business of mining: *“The leaders have to make you want to do it... then it’s up to the women also to take advantage.”*

Most interviewees agreed that *“Ultimately it’s the leadership of the industry, that have to lead the change in creating the enabling environment for women to be brought in and be given positions of responsibility”* (R16, male, former Director of global listed companies). R7 (male, CEO) felt strongly that leadership had to lead the change: *“So, so it is very much about leadership, Farana. It’s about tone at the top”*. He added that leaders needed to ensure that nobody is excluded. Interviewee 17 (male, CEO) supported this view, adding that he believed all changes in the industry needed to be led by the leaders: *“That occurs because of the leadership that occurs that helps people move to a different place.”* Retired CEO R2, one of the earliest leaders from a minority group, attributed much of his success to support from leadership: *“I also had some very good flagbearers who carried my name around because of what I did”*.

Leaders, in the view of R21 (female, CEO of mining company), had to be hands on: *“You cannot be a leader if you haven't walked in the shoes of where your people are”* while R17 (male, CEO) felt that a focus on people’s behaviour had to be considered: *“You’ve got to change the processes that govern behaviours.”* R2 (male, retired CEO) raised the gender pay gap issue that needed to be addressed: *“Like today, how many leaders accept that there are pay gaps between females and males? Because the first solution to any problem is to acknowledge it”* Leaders needed to make the changes by providing examples of their own experience, as explained by R12 (male, CEO): *“This is our ethos, whether it's race, whatever, gender, whatever. It needs to be out there. And then you have to make some extra almost strategic appointments with high profile, successful people.”*

In his position as the CEO of a global mining house, R12 described a tried and tested process that he successfully led from the top in order to transform the company in order to accommodate black males equally: *“It was a two-year transformation, culture thing...nearly every single person sat around the campfire together where we shared, they shared experiences, what they liked and disliked about each other and all sorts of stuff...There were lots of stories that came out.”* As a successful process for transformation, this approach could

be considered as a process to accommodate women equally. As R20 (female, MD) stated : *“It’s not even a policy ...If people see what I’m doing, automatically it filters down.”*

Commenting on how men may be contributors to the difficulties faced by women, R16 attributes this to failures in leadership: *“It’s just lack of commitment by leadership. We should be ashamed; it should not be allowed.”* R5 (male, VP of a gold mining conglomerate and previous CEO of a diamond mining group) agreed that leadership carried a great deal of responsibility for the under-representation of women: *“One is lack of willingness by the leadership of the company. They really just don’t care.”* R16 (former Director of a listed company) achieved 50% diversity in procurement in one year thus proving it was possible: *“We challenge people to look in the right places, depends where you look, because people are there. Hearing those excuses that we can’t find people because that was one of the limitations.”* A female senior executive in a mining corporation, R20 admitted to not making sufficient effort to provide opportunities to women in business in mining: *“...not because we’re making a concerted effort at this point in time, specifically from a women in business perspective, but we are seeing the women coming on board.”* R2 (retired CEO) supported this comment: *“There’s not enough women in business and I don’t think we encourage them enough. I don’t think we welcome them enough.”*

R3 (male, CEO) was clear in his support for the amicable as opposed to the legislated way of including women in the sector: *“Success stories are important. It’s important to have a black rugby captain...that role modelling is a very important, powerful place, which, I mean, we didn’t have just 20 years ago”*. R30 ( female, mining executive, VP of Strategy and Business Development) added that women learn from example and it was therefore important for them to see other women succeeding: *“People do observe what’s happening in the industry and they do observe the struggles that the female entrepreneurs and business owners encounter, you know, and as opposed to a male business or entrepreneur, who, you know, those opportunities are afforded to them with very little question.”*

R32 (male, CEO) summed up the challenges women have faced: *“But what we have in the industry is an oversupply of masculine leadership qualities, typically from men, and a massive undersupply of feminine leadership qualities, because of course, first and foremost we have such poor representation of women.”*

#### 4.2.2 Societal and Corporate Culture

Many interviewees commented on how cultural factors actually began at home. R3 (male CEO) explained: “... *but if you grew up in house where daddy was the authority, you know, make the decisions, where if you had to call somebody, the electrician was male*” and R19 (male, ex-CEO, founder, President of the Minerals Council of South Africa) “*But if I’m going to now look at the societal norms about how my dad was raised, how my grandfather was raised he’s going to say, ‘Who’s the man in the house?’ You understand?*” R31 (female, VP) agreed with this, adding that women needed to be mentored from a young age in order to ensure that they do not grow up developing biases about themselves: “*And I have a dream, a huge dream, to tackle unconscious bias from a very young age. Because that’s where it starts. It will not help me mentoring a young lady at tertiary level to prepare for the mining industry, because she already has a specific bias about herself.*”

The view of R3, a senior corporate leader, was that gender issues are deeply cultural. He believes that all cultures discriminate against women, and change is difficult where this is the result of upbringing: “*You know, so we start from a base where culturally, in religion, at home, in families, ...I’m not aware of cultures where women are truly equal.*” Consequently, change was slow and nowhere near where it should be: “*And part of that is the pervasive culture. So, a male dominated, very aggressive, very harsh, very like, it’s not woman friendly at all and it’s changing, but I mean, it’s changing from the disastrously negative to less negative.*” R12 (male, CEO) agreed that the culture and, in some areas, racism in the industry need to change and that leadership had a significant responsibility for this: “*There are some pockets of racism, as well that are there that need to be dealt with. So, sorting out the culture, it’s really important, how do you sort out the culture- put the right leaders in the right place, setting the right tone from the top?*” R21 (female, CEO) also thought that a change in culture began with the leaders: “*Culture change unfortunately comes from the top, though. And that’s part of the culture change*”. R12 added that even though racism has also been a prohibiting factor towards progress in the industry, on the issue of gender equality males of all races could be of one mind and be unwilling to work with women: “*It’s not in line with their culture and they will live it as a white Afrikaner or a Zulu man saying to me it’s not their culture to take an order from a woman.*”

R3 (male, CEO) thought that culture played an exclusionary role from inception: *“And then we sit on a panel of seven people interviewing and four of them can be women and the same biases comes from all seven participants that this guy looks more like a mine manager than this girl. That has to be culture.”* R9 (male, Board member mining, labour and banking sectors) supported this view by explaining that women are assessed as not being capable even before they are considered for a position: *“Policy speaking, because like anybody else, if you are appointed in a leadership position, there are job specs, you’d be assessed based on your performance. But in these instances, women are assessed before they start.”*

Bias is a complex issue in personal and corporate culture. Many of the interviewees admitted to experiencing difficulties in changing their mindset. R17 (male, CEO) discussed unlearning his 64 years (since birth) of experience in order to be less biased: *“You just got to continue chipping away during unconscious bias. And that’s hard, because as you say, you’re putting aside, in my case, 64 years of learning and some of it intuitively.”* R22 (female, Senior Advisor) was of the view that, despite enabling environments, internal biases would still prevent change: *“...if your upbringing and socialization is about women are not leaders, therefore, no matter how enabling the environment is to promote and appoint a woman, just because of that internal bias, you will never do it.”* R2 (male, retired CEO) added that despite women being employed for diversity value they are expected to conform: *“...sometimes we want women or we want people who are a minority, we hire them for their diversity, but we want them to conform.”* R22 (female, Senior Advisor) continued on this theme, stating that negative bias towards women-owned business during procurement existed: *“...when it comes to appointing a woman or a woman-owned entity, there’s almost like we want to read all the lines in the paper. Whereas if it’s a submission by a man, we will read what is important and then we move on, but where does that come from? It comes from the unconscious bias that I’m thinking this woman might not know what they’re talking about.”* R22 summed up the difficulties thus: *“So, when will we get to a point where we trust a woman-owned-entity or a woman for example? ...for me, the unconscious bias is really, really, really big.”*

R21 (female, CEO) observed that being female has led to her being appointed to positions that are typically allocated to females: *“...there’s no job too small for me to do ...and that meant at times I made coffee.”* She added: *“A typical example, when we had Marikana... I was part of the Lonmin management team,...and we didn’t have a corporate affairs function... the team looked around the room and said, well, female, corporate affairs... And so, that is a typical*

*point where, because you're female, there's an assumption that you will do certain work.*" This situation often occurs in the social context too, as described by Senior Advisor R22: " *'Oh, we want to have a party next week' and then most people look at you like, 'Can you bring the salads and the pap? We will braai the meat'.*"

Most interviewees were aware of their own biases in the workplace and the need to address these, as expressed by R27 (female, MD): " *I think as leaders we should be more conscious, we should consciously not create the biases and stop creating it and stop perpetuating it.*" Many of the interviewees supported training to deal with unconscious bias at various levels in order to think differently, for example R17 (male, CEO): " *So, we did unconscious bias training... I think it's a must do for a living.*" R22 (female, Senior Advisor) added that unconscious bias did not necessarily change despite the training: " *I think in the business way, we call it the unconscious bias. But is everyone that you are dealing with able to actually go through that process and be honest and authentic about it and do something about it?'*"

R17 also thought that it was essential that employees did not feel "threatened" but understood the focus on removing unconscious bias and that this should form part of the employee's performance appraisal. R22 supported the need for individuals to be more "aware" of unconscious biases and deal with them accordingly.

Another view put forward was that men have difficulty working with women because they cannot identify with them. According to R3 (male CEO): " *I think we bias it knowingly or...I sit with you and I don't see a younger version of me. I see a woman*". R19 (male, ex-CEO) recommended working on a mindset change in order to accept women in the industry: " *We went through a whole programme on mindsets to help people understand that within our mindsets there is an unconscious bias sometimes.*" R9 (male, Board member in mining, labour and banking sectors) reiterated the existence of unconscious bias: " *You know, sometimes I call this occupational blindness. When you are used to a particular environment, you can't even see what's supposed to be of concern or wrong.*" R2 (male, retired CEO) pointed out that acknowledging that there was bias was the start of resolving it: " *And the one thing that those two guys (senior white male leaders in the mining industry) accepted, admitted and openly said is, 'We are unconsciously biased about certain things and we're open that the differences exist'.*"

Many interviewees had experienced career difficulties when taking time out of work to have children. A major challenge was associated with women taking maternity leave. The perception was that on returning to work these women were not delivering to the required level or on a par with their male counterparts. Sharing this sentiment was R8 (female, executive head at Minerals Council South Africa): *“They were not particularly supportive. The one was even patriarchal.”* Interestingly, several male interviewees voiced criticism of this perception and the way this was mishandled. R3 (male, CEO) voiced his view on why maternity leave was a challenge and seen as discrimination: *“Surely society would want women to have maternity benefits. But when you have it in a society which is unequal, then actually it’s discriminatory or it contributes to potential discrimination.”* R3 further expressed his concerns on the approaches to pregnancy: *“And if it’s unsafe for an unborn child to work in a metallurgical plant, is it safe for the mom or the dad to work?”* Also from a male perspective, R9 shared his experiences and commented: *“So, I think there’s a lot of – they are conservative people need to change their mindset and they tend to undermine you.”*

In addition to the challenges of maternity leave and of re-joining full time work, family responsibilities limited socialising opportunities for women. R10 (female, owner of a drilling and exploration company) explained: *“Because I have my challenges really, I have my limitations. As a female as a mother. I have my limitations. I’m not able to attend all the social events as well.”* This could be perceived as not being part of the team and interviewees spoke of being sidelined from meeting and decisions as mentioned by R3 (male, CEO): *“Why must I play golf in order to be able to be promoted? It can’t be right. Where’s the HR policy? ...It’s not written, but it’s informal, you know.”*

Professional women who do not have children also encounter related challenges. They are often made to feel that they are successful because of not having children, to the extent that some women believe that not having children is seen as the reason they have succeeded: *“I have more of a public profile now and now people are like thinking it is so easy for you because you don’t have kids, oh you don’t have to worry because you don’t have kids.”* This was expressed by R27 (female, MD of a company supplying services to mining, Chairperson of WIMSA).

Female-owned contracting companies are often warned to stay away from employing women in their workforce, as R29 (female, founder and CEO of engineering and mining company) encountered: *“I wanted to employ female boiler makers but they tell me: no we are working*

*with heavy equipment so we want to finish the project on time- we don't want women here."* However, R23 (male, former CEO) believed that efforts to increase the participation of women in business would have negative repercussions and was concerned that active efforts to promote women might be misinterpreted: *"I think in a way, we must be careful we don't become paternalistic about women, because all we will do is, you send the wrong message. You send a message that it's unfair or it's a playing field that's not level and that will ultimately be to the detriment of the women. They must be treated fairly and of course, sensitively and supported. But I think if you let the pendulum swing the other way, it'll swing back and it'll be to the detriment of women."*

Another barrier that stems from cultural differences is how business networks are established in the mining industry. The discussion about professional networking opportunities made the impact of gender differences and inequalities clear and many interviewees spoke about the challenges they had in this regard: *"So, it looks like men, actually, that boys club we always talk about, it's there for real"* (R8: female, Executive Head at Minerals Council SA). R24 (female, Principal Geoscientist) agreed that there was limited information available to women on business opportunities within the industry: *"I think men just like spread the word among themselves. So, no. I think we as women are definitely limited in getting all the information out there."*

In the mining industry, playing golf and socialising at a pub have long been regular social activities. These continue to be predominantly male social events even as women have joined the industry because women are often not included. This was made clear by R27 (female, MD): *"The golf days are always male only invites always."* In R30's view (female, mining executive) the male network has been nurtured over many years so that it is definitely a more established support system: *"Women do not get – it's not the same access, without a doubt. Because the male network has been so developed over a number of years that, you know, these guys give each other info, hint at each other at a click of a button."* R18 (male, General Manager of two multinational mining houses) put this in context: *"You were all males and on a Friday you would all go to the pub. And that was the culture."* According to R8 (female, Executive Head at Minerals Council SA), this culture remains: *"The bar after work. A lot of women don't drink or you are not up to being seen in that situation at the bar, you know. Again, that's where the networks are formed."*

Most of the women leaders interviewed are mothers and wives. These responsibilities affect how women can engage socially in the work environment. R28 (female, Strategic Advisor) commented: *“How many women can say, ‘Oh, my friends are CEOs?’”* and she attributes this to the fact that women cannot stay long at after-work events. Talking about Friday afternoons R9 (male, Board member in mining, labour and banking sectors) concurred: *“Before knocking off, three o'clock men are having drinks. Females are not in that space, you know. You are either rushing home to attend to family issues or that, or that, you know.”* Many interviewees agreed that the environment was not conducive for mothers, as explained by R10 (female, drilling and exploration company owner) *“Yes. I feel like it holds me back.”* This is supported by R16 (male, former Director and Chairman): *“I think there's a lot companies can do to create a family friendly environment to be the women friendly environment.”*

Nevertheless, not all interviewees saw these events as necessarily excluding women. R2, a retired black male CEO, felt that playing golf could provide a valuable networking opportunity for women: *“If a woman came and she's playing golf and she then tells me that she's got this project and she's building ventilation walls and she would want a business, suddenly I'll see her slightly differently.”* This view, however, clashed with other gender challenges. One was women possibly being perceived as being “forward”: *“The ability to just pick up the phone and phone me and not be perceived to be, this woman is forward”*(R2). Another was the cost of networking opportunities: *“You don't want to pay R10 000 to access these networks. As a women you feel that you can rather spend this money on food for your children”* (R29: female, founder and CEO of engineering and mining company).

R29 also thought that women needed to get more involved in politics in order to succeed: *“The reason women are not getting full support is because we just focusing on business and we don't want to learn about the politics. Business and politics goes hand in hand.”* R20 (female, MD) observed that women tend to impede their own progress: *“Sometimes women actually hold themselves back and this is a challenge that we always had. They won't apply for that job.”* Several interviewees acknowledged the importance of professional networks. R24 (female, Principal Geoscientist) attributed much of her career success to the networks she had built: *“All my jobs have been through who I know and people approaching me and I think, that is a really good start for women. Just build a network.”* Some interviewees had suggestions on how these networking opportunities could be made more inclusive, for example, activities such as hiking (R20, female, MD of internationally listed diamond mine). Many recommended becoming

members of existing networks focused on women in mining, namely Women in Mining South Africa (WIMSA) which focusses on women in the labour workforce and Women in Mining Business South Africa (WIMBIZ) focusing on women in the business of mining. The message was, as stated by R24: *“Build your network as big and as strongly as you can and that will give you the in, into like, the old boys’ club almost.”*

One of the sentiments echoed most frequently by women interviewees was that in order to fit into the corporate culture, they felt they needed to look and behave like a man, as explained by R6 (female, global CEO): *“I’m in a man’s world. I’ve got to look and behave like a man to do a man’s job”*. On the other hand R3 (male, CEO) said: *“So, it’s a male dominated culture and what must women do then to be, back to my earlier analogy, ‘the mlungu ga lo square [white male leader of the area]. How does she assimilate into, I mean, she could be butch, she could play rugby, I don’t know. But I mean, that’s not what most women want to do. And that’s not what we want women to have to do, because we want their diversity, we want the benefit.”* R7 (male, CEO) agreed that women should bring in their own attributes in order to add value: *“The last thing that I expect from all my female talent and my female partners is to try and behave like men. That is the worst thing that they can do.”*

In the words of R6 (female, global CEO): *“Again, cultural and societal norm and unconscious bias, because if those things aren’t tackled, we’re not going to go anywhere.”*

### **4.2.3 Legislation**

While there was agreement on the need for change, and on the many areas where it should happen, views differed on the part legislation plays in this. When referring to the 5% spend of procurement to be allocated to youth and women as per the proposed Mining Charter 3, R22 (female, Senior Advisor), was adamant that policies have no significance unless they are enforced: *“I guess in the case of South Africa, there are many things that are on paper in black and white, but some of those things are not enforced, and as they are not enforced, therefore they mean nothing.”* R26 (female, UN Under-Secretary-General and government minister) expressed her deep concern that South Africa’s government was not capable of ensuring that appropriate policies are written and enforced: *“We don’t have an environment where anything that I say would work, because there’s nobody to make it work. So, we really are in trouble.”* R22 further gave the example of the Wage Bill as a policy that had had no effect because it

was not adhered to. She commented: *“Policy and all these laws can be there, but if the environment, again, is not conducive, nothing will happen.”*

Authority played an important role in policy compliance. R7 (male, CEO) noted that not all leaders supported the need to meet quotas: *“Some leaders will come out very strongly outright and say, no, I don't believe in quotas”*, while R22 added that companies escaped meeting quotas by paying fines: *“It's like, it's that in South Africa, people can pay fines for not complying. It doesn't help.”*

R3 (male, CEO) stressed the need for government to support diversity: *“I think a political party that doesn't give us 50% women leadership is playing games.”* He added *“I mean, when I invited [person anonymised] onto my board, there were no women directors on mining boards. We're going to be forced to have transformation in the whole country, from ownership to, you know, different people in different positions... So, how do we go there in a way that is good? Not a way that is reluctant.”* R8 (female, executive head at Minerals Council SA) brought support to this view by explaining that the changes that had happened were due to a compliance issue: *“Because the industry really, most of the changes were forced on them, as with most companies or sectors in South Africa...the charter, for instance.”* R25 (female, Executive in a multinational mining house) commented that because mines are not incentivised to include more women in procurement, the Charter should raise the minimum requirement: *“It's not like there's huge incentives to hire women if you're in business, they're saying 5% has to go to women. So I think that number needs to be higher in the mining charter in terms of women owned businesses.”* R14 (female, owner-director of mining resource company) added: *“The charter is not finalized. There's still an opportunity.”*

Many women interviewees spoke of the lack of support from government in terms of women-owned mines, as noted by R14 (female, Chairperson of WIMBIZ SA): *“And we thought the DMRE [Department of Mineral Resources and Energy], by them giving us these prospecting rights they're gonna be there with us. They did not even want to know.”* R29 (female, founder and CEO of engineering and mining company) added that not only did she find that she could not get support from the South African government, but the existing policies did not assist her either: *“I don't have all the necessary supports from anyone like governments etc. Because even the policies are not really helping women in business.”* Due to difficulties like these that he faced in the country, R5 (male, VP, previously CEO of two mines) chose to do business

deals in other countries: *“I measured the time and effort that I put into making a deal. And in South Africa, on average, you put in five times to ten times for the same dollar that you get back if you got the deal.”*

An ex-senior member of Parliament and previous Minister of Mining of South Africa, R26 (female) despondently stated that both the private sector and government were responsible for implementing legislation, despite the legislation being *“imperfect”*: *“You need parliament, amongst others, to hold the Minister and the private sector accountable. People that are responsible for and enforcing implementation of these imperfect legislations that we have are unfortunately, right now, our only refuge.”* She added that she did not know how to encourage commitment from stakeholders in government or the private sector but this commitment was the only way to ensure a lasting success: *“And ultimately, policy is necessary, but more than policy, it is the commitment of the people to the course...It really is a very, very important, you know, indicator that will make sure that you can get change that lasts.”*

R26 was also clear on how government instability has contributed significantly to the current situation: *“The whole politics of the country have to change. I don't think that it'll make a difference if we pick on little pieces of mining, because all these pieces depend on what happens overall.”* She did not believe government had the infrastructure to ensure these changes: *“It's always going to depend on who is there in the ministry, who is there in the higher office, who can demand these changes and make sure that there is compliance. And I don't know if - I don't think we have those people.”*

Many interviewees agreed that government needed to set targets in order to ensure that more women are included in the business of mining. R21 (female, CEO) commented: *“If governments make policy and set targets, it's got such a huge impact.”* R6 (female, global CEO) supported this: *“Whereas the mining charter talks about local, I think it can do better to talk a little bit more about specific targets on female-run businesses. And the reason I say it, because although you and I know this is the right thing, putting it down as a firmer requirement is a catalyst. I think that's a good starting point.”* R16 (male, former Director and CEO) agreed: *“You do need enabling policies to be able to drive the women empowerment agenda.”* In the opinion of R15 (female, MD and owner of an exploration company), people only performed when measured: *“When people are measured, then they do things very differently. But if you're not measured and it doesn't make a difference anywhere then you'll never see a*

*difference.*” To illustrate the necessity of policy, she gave the example of how, without a policy to enforce conformity, wearing of masks during the Covid pandemic was initially seen as an option until it was legislated: *“It always starts with policies being driven from the top that guide to the lowest operational level Policy always shapes how we behave - case in point the wearing of masks! Without the policy people felt they had the choice of compliance or not!”*

R3 (male, CEO) was specific that the mining industry is compliance-orientated and therefore it complies with regulations, despite not always approving of them: *“And then the other thing is we are quite a compliant industry. So, if you hit us with a legal requirement, we will fight. We will hate you. We will tell you it’s a stupid idea and then we will comply anyway. Because ultimately, our license to operate is a real license. We can lose our mining right...And so, if I was a politician, I would unashamedly say this is an industry that you can regulate into compliance.”* By adhering to a track record of compliance, mining has managed to achieve results because *“if you don't comply, you'll kill somebody. If you don't comply, you lose your license.”* In his view, enforced change can succeed: *“You make rules and policy, you enforce it and you change the culture you can regulate and enforce behaviour which offset culture. So, I think the quota approach has got a real specific value as an affirmative action tool.”*

R20 (female, MD) thought that South Africa’s Mining Charter was a leading charter globally and that targets to include women in mining business should be included: *“If you go and look at developed worlds and how they have not kept up with the requirements of mining, our mining charter is beautiful. So, I honestly believe that we need to set targets.”* Commenting on the value of targets, R23 (male, former CEO, VP of Minerals Council of SA) commented that targets informed the status quo of many other regulations so he could not see why they are not enforced to include more women in business in mining: *“They should make it clear that we are addressing legacy issues with women and they should be putting capacity and resources in place to promote the concepts. That’s not left to the women in businesses to do this on their behalf. They do it for safety, they do it for BEE, so why not do it for women?”*

R19 (male, ex-CEO) endorsed this view adding that, had it not been for legislation, many black people would not have had opportunities: *“And I guess until pushed by legislation...There wouldn't be opportunities for a lot of black people in many industries, in all industries if it wasn't for legislation.”* R24 (female, Principal Geoscientist) agreed that quotas and targets do create opportunities for women, if enforced: *“... we have to rely on legislation and then we get*

*back to the quota system, which I think it has its place, because it does open doors for female run companies.” R32 (male, President and CEO) supported quotas and targets and provided an example of how well they have worked: “I would just say, okay, so globally, the participation of women in the mining workforce is 14%, right? BHP sets a target to be gender parity by 2025. The industry’s at 14, they’re at 34%. And you’re telling me quotas don’t work and targets don’t work? Please.”*

However, R17 (male, CEO) did not think that targets should be enforced, preferring buy-in by the relevant stakeholders as a better option: *“We’re just doing this for the numbers and you give them any excuse not to take accountability for the change they need to lead.”* He also believed that setting targets and quotas would limit transformation for women in business: *“When you work for progressive companies, the danger is they want to do it anyway. And putting a quota on it sounds good, but it ends up being a cap.”* In order to prevent more harm than good, his suggestion was that government should regulate while allowing companies to set their own targets, which is the current situation: *“Now, governments can regulate, but I think they’ve got to talk to an expectation and allow companies the opportunity to set their own target...they have to be sensible, but if they abuse the intent, they probably do more damage.”*

R8 (female, Executive Head at Minerals Council SA) agreed that targets had an impact but ideally leaders should believe in the change: *“But what works is actually leaders who do believe, you know, in the need for change.”* R9 (male, Board member in mining, labour and banking sectors) supported this view: *“I’m saying also just by encouraging people to do it without a piece of legislation, it can be easily sustainable, because it is done in a good spirit. You are not maliciously complying.”*

In contrast, R23 (male, CEO) did not believe that government was capable of making a difference: *“I personally don’t think government can do anything constructive at the moment...they should be making it clear that this is a policy in the national interest, which it is.”* He believed that government should make the environment conducive to including women in the business of mining: *“There are already far too many policies that are stifling and so, you really have to create the want to increase the women in business and in mining, because it’s a good thing, not because it’s legislated.”* In line with this thinking, R5 (male, VP and CEO of Mines) commented that current policies were not being enforced anyway: *“The legislation does not have teeth. So, there is not even any sanction that I would expect to come my way if I*

*did not comply.*” R14 (female, owner-director of mining resource company) agreed: *“There's no measurements who measures the policy, who measures that the act is being implemented, who measures the social measurement, who measures the charter?”* R30 (female, mining executive) suggested that the Minerals Council of South Africa (a mining industry employers' organisation that supports and promotes the industry) should get involved with the women in business agenda: *“The Minerals Council needs to be a bit more active in it as well... that portion of business, I don't think it gets the required attention.”*

R7 (male, CEO) highlighted the problems between government and the private sector despite their shared interest in the industry. He suggested that both parties make compromises in order to move forward: *“In business' view, government has unrealistic expectations and provides no certainty from a policy perspective to enable them to invest with confidence over the long term. Government on the other hand feels that business continues to be greedy and unrealistic and is not really interested in transforming and moving society forward. So it's within that very grey area, what exactly needs to happen to get us to move forward.”*

In support of a more collaborative approach R3 (male, previous CEO) thought that an intervention by relevant stakeholders was necessary: *“...the intellectual case is solid. The business case is solid. ...we just have to actively intervene. And by we, I mean obviously, whoever's got the power to intervene.”* R8 (female, Executive head at Minerals Council SA) suggested that to ensure success in meeting women's empowerment targets, these should be measured with a performance evaluation of the relevant people: *“They set targets for them, they actually also, their performance evaluation is based on those targets.”* R16 (male, former Director, Chairperson and CEO) agreed: *“We have to link that with key performance metrics that are used to incentivize management. What is measured gets done... Once people can be impacted financially, they tend to respond in a supportive way.”* He added that non-performance must have consequences: *“And again, you have to be very decisive in terms when dealing with mediocrity and poor performance and resistance to change.”*

#### **4.2.4 Training and Mentoring**

Several interviewees noted a gender dimension to training and mentoring, as commented on by R25 (female, Executive at a multinational mining house): *“I mean any of the leadership development programs that I'll go on there will still be skewed towards more males than*

*females.*” R30 (female, mining executive) saw gender as central to “*the whole mindset change ...the whole education around women entrepreneurs, women being afforded opportunities in the mining industry.*” Others stressed the importance of bringing men and women together through training and mentorship opportunities, R25 (female, Executive at a multinational mining house) commented further: “*I think women-only leadership courses are good. But I think it's even better if you can put women and men together and have them grow together..*” R6 (female, global CEO) had a similar perspective, commenting on the value of “*courses like toxic masculinity, unconscious bias, psychological safety*” and R14 (female, owner-director of mining resource company) found the experience of mentoring across the gender divide exhilarating: “*You know, sometimes the information that you have, um, you take it for granted and you think what has it done. And when you talk to somebody about that, you realize that that's why mentorship is very important.*”

A further challenge for women contractors is that they are often excluded from training opportunities for themselves and their employees, in comparison to male contracting companies, as explained by R11 (female, business owner contracted to mines): “*But you never hear that there's any training that is available to be given, so you don't apply for it*”. Training at the mine training centre occurs when new policies, rules or regulations are required in order to qualify to perform certain tasks. This is a regular occurrence and these opportunities are then given to the relevant people that have been trained accordingly when they arise.

Some chose to think about training and mentorship in the context of specific and pragmatic circumstances. R14 (female, owner-director of mining resource company) recalled a situation in which the lack of training became very evident, and had resulted in a competitive disadvantage: “*We had no serious business intellect... We don't even understand and we sell our gold for nothing.*” Others talked about the opportunities for training and mentorship in the mining supply chain: “*We have a supplier development fund, we use that to support female entrepreneurs to come through*” (R6, female, global CEO). R14 recalled a situation in which lack of experience and knowledge in mining became very evident, resulting in the business losing their mine. She confessed that they had lost the deal out of ignorance and lack of resources: “*So we really didn't know what we had until later on. So we had lawyers, we had money...when we are now without [money], you don't have a lawyer, you consult your friends, you consult, and then you end up and the time is ticking.*”

R10 (female, drilling and exploration company owner) claimed that the industry had not been forthcoming in supporting women-owned businesses, R14 (female, owner-director of a mining resource company) addressed the lack of assistance with regard to seeking mining licences. These often resulted in failure as the applicants did not have the knowledge on how to proceed within timelines stipulated by government *“So they will tell that you've got it. You applied for it. What were you thinking? That's the attitude. So they've done their job. They're giving it to you and clock is ticking.”* R16 (male, Director, CEO) agreed with this, suggesting that more training institutions and support groups should get involved: *“I don't think there is enough support for women in leadership...we should also repurpose institutions to provide itself to universities, think tanks, there should be support groups being set up- Institute of Directors.”*

Professionals from minority groups (females, black males or any group of people perceived as lesser than the ‘norm’) face particular difficulties. R2 (male, retired CEO) raised the difficulty of navigating as a minority if there were no role models: *“The limitations would be, there were no role models to anchor yourself in and to see what is the art of the possible.”* He continued: *“So, especially for us candidates of minority, yourself as female, myself as a black male, there is elements where we have some things in common. I think you're worse off than me.”* This view was supported by many other participants. R12 (male, former CEO) expressed his view on the difference that having a role model made: *“And then that's what's helped the next black manager and the next one and the next one.”* The absence of role models for minority groups has had several other effects. As a woman leader, R20 believed that she always needed to prove her capabilities before engaging with the issue in hand: *“You've got to sell yourself as an individual first to show them that I can actually do this job. And then you get into your proposals or whatever it is that you want to get into.”*

It was evident that mentorship was essential in order to create lasting opportunities in the business of mining. Mentors not only provided industry knowledge but could expand networks across the industry. *“Your mentors have a good network and they can help you ... You need females and males.”* (R24: female, Principal Geoscientist). R4 (female, company owner) saw mentorship as a matter of survival *“You've got to lift your level to a point where no one can compete with you, then you become indispensable”* but also as part of personal responsibility: *“Be a person that you would want to be mentored [by]. It's not you need money, but let's do the things the right way.”* R3 (male, CEO) agreed that men could learn from women through mentorship programmes: *“Can we acknowledge that it is a suite of skills and therefore, again,*

*if you look at the business case for, why do women leaders make better leaders, it is for the feminine type skills.*” He was unable to elaborate on what he meant by “feminine type skills”. R27 (female, MD of service company) described her experience of having good mentors “*I think I’ve been fortunate in the sense that I have had very good mentors/ sponsors who were managers that...saw through the gender and focused around the competency.*”

#### **4.2.5 Business Systems**

R21 (female, CEO of a large mining company), described some of the challenges that the mining companies contribute to, including their complex and dysfunctional business systems. This creates difficulties for small businesses to get started and survive due to “*draconian processes.*” She also commented that their “*business is fraught with crime and corruption on the inside*” making it difficult for new companies to enter and succeed. One female entrepreneur (R14) identified the existence of cartels as another obstacle that women faced: “*I hear there's cartels. Now what they do, there's a drilling contract coming for hundred and fifty million. They know about it before it's advertised. How is that? They know about it.... So how are we going to survive? So we have to make the policy makers aware of this.*”

The ability of women to source business is often restricted by the existence of long-term contracts with male-owned businesses. “*People are locked into long-term contracts. Some of them are reluctant to change and others have [a] central procurement system.*” (R5: male, VP of a gold mining conglomerate and previous CEO of a diamond mining group). Women-owned businesses also require long term contracts in order to be sustainable: “*The support we need is sustainable procurement of goods, like long-term contracts which they give to male counterparts. So, for me, support would be giving me a long-term contract*” (R29: female, founder and CEO of engineering and mining company). This lack of long-term contracts restricts women’s ability to source funding, as explained by R10 (female, drilling and exploration company owner): “*I think that my main issue is contracts, you know, getting contracts, two year contracts, three to five year contracts, that's the way you can attract affordable finance.*” R11 (female, MD) was totally despondent: “*You will always be up against a wall of indifference and political manipulation.*”

### 4.3 Drivers and Opportunities for Change

Despite all the challenges experienced and commented on by the interviewees, there has been a growing recognition of the value of female perspectives and leadership in the mining industry. Three primary drivers of this change emerged from the participants' responses. These are discussed below under the sub themes of Society Pressure; Understanding the Value Women bring to Mining; and Opportunities (Figure 13). Exploitation of these drivers could be considered as an opportunity to improve gender equity within the industry.

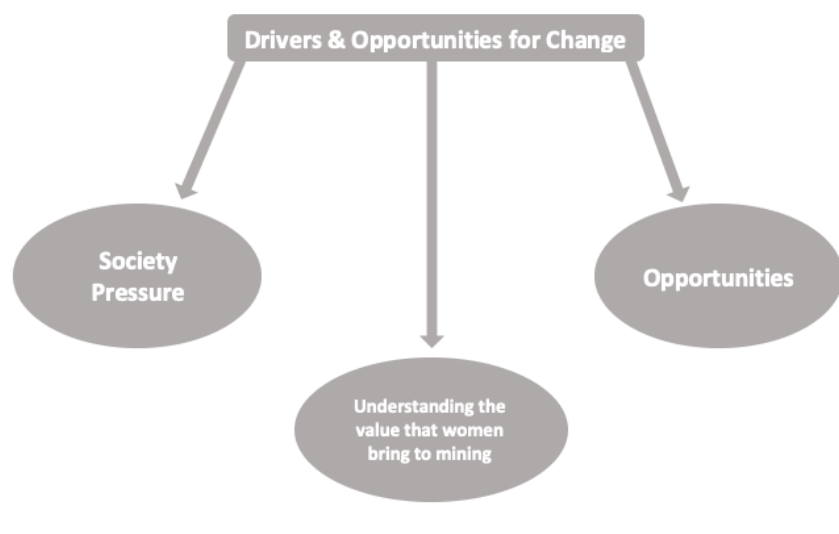


Figure 13: Drivers and Opportunities for Change

#### 4.3.1 Society Pressure

Many interviewees raised the point that including women-owned businesses was a means of attracting more women into the business of mining. R15 (female, MD) agreed *“You cannot become what you can't see.”* R2 (male, retired CEO) highlighted the global drive to appoint women: *“So, this is a very big topic globally and it's a big topic in the UK. The pressure to appoint females and the minority groups, which includes females, to boards into senior leadership roles is amazing.”*

As a leader in the global corporate sector with mining knowledge, R16 (male) successfully managed to ensure 50% of women in procurement in South Africa. Having proved that this shift to greater inclusion was possible, even though it was achieved in an industry other than the mining industry, he emphasized the measures that needed to be actioned in the mining industry to ensure greater inclusion: *“But I think there has to be a sense of urgency about it. I*

*think there has to be more discussion about the matter. So that we move the goalposts and we don't put any restrictions.”*

With regards to society's expectation of the mining industry, R7 (male, CEO) had views on how society questioned his progress on transformation and diversity: *“There's the public accountability with our clients constantly putting us under immense pressure to say what are you doing on transformation and gender diversity. Where are you? How do you benchmark against your peers and why are you moving at such a slow pace?”* R5 (male, former chairperson, VP and CEO of Mines) commented on the influence that shareholders and owners had on diversity: *“The owner always asked me, ‘How many women are there? How many black people are you hiring? Are you transforming your organisation?’ If the owner asks me that question, things are going to happen.”* Building on this, R17 (male, CEO) commented that society had the power to influence investment and legislation: *“So, you know, attitudes of society shape over time and expectations are shaped in those societies and how companies ultimately take on those expectations is where the investment dollars come from, or legislation or peer pressure. If somebody's doing something, you are not doing it and they're doing much better, guess why? You better think differently”.* He also added that society has the power to bring about “powerful change”.

Some of the participants expressed more personal thoughts. R20 (female, MD) said: *“Firstly, for my daughter, I really want to make sure that it doesn't take her 17 years to get to her dream job or her dream, basically in the workforce. Likewise, I want to create equal opportunity for my son.”* R7 (male, CEO) added: *“As a father of three children, two of them being girls, you know, I would want them to get equal opportunities.”* R3 (male, CEO) admitted to his own personal bias: *“I wish that if I had to have a 17 year-old daughter, she would have exactly the same opportunities, freedom to choose anything that my son is currently having.”*

#### **4.3.2 Understanding the value that women bring to mining**

R2, one of the first black male CEOs in the mining industry, was of the opinion that the mining industry did not understand the values women bring to the mining industry: *“They don't realise the benefits of inclusion, the benefits of divergent thinking, the benefits of having an equal society and an equal environment, an enabling environment and how much that is a massive business imperative.”* R32 (female, MD) concurred about the attributes that women bring to

the table and pointed out that the current male leadership is not serving the mining industry well: *“I really believe that this question of leadership and culture is so crucial and at every level and at every part of the mining value chain, to have women in those positions will, a), massively benefit the industry, but b), it is deeply lacking right now, and as a result we have a dominance of the alpha male style of leadership, which I think is serving the industry badly.”*

R17 (male, CEO) agreed that the alpha male type behaviour is no longer appropriate: *“There's less of the alpha dominated type behaviour and it's a bit different behavioural dynamic, which is generally much more constructive, because it's more of a reflection of society and what it actually is.”*

R19, a male leader with extensive experience in the mining industry, provided a picture of how he viewed male leadership in action: *“We are not good at multitasking. We're not good at being empathetic in dealing with issues...It's a dog eats dog world. It's a boxing ring match if I'm going to have to deal with an issue, it's about always confrontational.”* R11 (female, MD)

expressed similar views: *“Men are much stricter and more forceful, not very empathetic.”* In further support of this view R27 (female, MD) added that the power lies together, with both male and female leadership: *“My FD is male and I'm female and between the two of us we have such a nice balance of the way we approach situations and the way we have balance for those sorts of things and I think there is a bit of a humaneness that female leaders bring.”* The opinion of R23 (male, former CEO) was that *“Women are the ones that tend to create social stability and therefore deserve more support than what they've been getting.”*

Not only do women add value to the leadership in mining, they also contribute positively to the technical aspects of mining, as observed by R23 (male, former CEO): *“I think women drive machines better than men.”* R9 (male, Board member in mining, labour and banking sectors) commented further on the input of women's contribution to cost saving *“...there was less breakdown in the machinery, which were operated by females than those that were operated by men.”*

Just as some of the women interviewed had commented on the need to be visible and heard, R23 (male, CEO) suggested that the *“benefits of diversity should be demonstrated”* adding: *“There's analyses that have been done where more diverse companies perform better than others.”* In the view of R17 (male, CEO) having a diverse company would maximise available talent: *“...it means that they're drawing from a much bigger talent pool.”*

Many interviewees mentioned that when women earn not only do women have the potential to add value to the mining industry but this income stream also has an impact on the future of society at large. R21 (female, CEO) explained: *“We’ve done a piece of work shortly after Marikana...and the impact of money in a women’s hands versus a man’s hands and how much of that money goes back into education and looking after children and community. And you can see that in quite a bit of women-owned businesses as well. So, that’s why it’s important to have women-owned businesses.”* This point was supported by R28 (female, Strategic Advisor): *“If we have male and female-owned businesses, then we’re able to tackle a lot of the developmental issues that surround the community development. So, if you’re a mining company and you are serious about community development, economic empowerment, then it’s not just about giving people jobs, it’s about giving them ownership of what they can do.”*

Another view put forward was that there was a correlation between empowered women and the education of children, as explained by R28 (female, Strategic Advisor): *“So, we have data that correlates between if you empower women, especially when it comes to economic empowerment, then the children in the household are more than likely to be given a standard education or have access to schools and so forth.”* R19 (male, ex-CEO) shared a similar view commenting on the value to the industry that women could offer their if power was harnessed: *“The women are the ones who are holding the fort at home... My God, imagine if you can just harness that power within the work environment.”*

As a leader in the global corporate sector with mining knowledge, R16 (male, Director, CEO) had successfully managed to ensure 50% of women in procurement in South Africa. In his view: *“We believe that we can achieve excellence through transformation, through diversity through equity, and inclusion. So, for us, it’s worth it – lot of improvement in efficiencies, different parts of our operations and the business.”*

R2 (male, retired CEO) thought that more women would be included in the business of mining if there were more women in leadership positions in the industry: *“Because if you suddenly have Lebo Pasha as general manager of Isibonelo Colliery, she is definitely going to make sure there’s some procurement of activities that favours women and brings women on board, because they are there and they’re able to do it. Take a chance on them.”*

Interviewees were asked to consider what the weaknesses were in their institution in terms of supporting female leadership, and how these weaknesses could be ameliorated and mitigated.

R23 (male, former CEO) was initially cautious: *“Probably no, but the recognition that gender is an important form of diversity is clear to me and of course, promoting women in mining in a very male-dominated environment leads to better results, I've always believed in.”* He went on to provide more detail: *“But it's only I'd say in the last, probably 10 years that I've driven that part of diversity hard”* and added *“But I've always been a proponent of women bringing a different aspect to business, a different touch and I think it's healthy and complementary to what men do.”*

During the interviews, interviewees were asked what they viewed as attributes of female leadership. Many interviewees felt that women brought empathy and compassion with their leadership package, as mentioned by R24 (female, Principal Geoscientist): *“Women have more empathy and more inclusivity when they lead”* and R27 (female, MD): *“I think there is a lot more empathy and compassion that definitely comes from women and I don't think that it is a bad thing in leadership.”* R22 (female, Senior Advisor) thought that women contributed beyond their job description: *“Sometimes some of the things that women bring into the workplace are not on their job descriptions, but they happen to be the glue or the assimilator that keeps the organisation going.”*

R6 (female, global CEO) suggested that the reason for these attributes was due to a *“natural maternal instinct”* in women. R11 (female, MD) drew from her own behaviour in support of this: *“I was interested in my people working for me. I was really interested in them and I cared about them in the sense also, that I wanted to uplift their source of income, so that they could have a better life.”*

R19 (male, ex-CEO) elaborated from a male perspective: *“A woman brings a different touch. I see it even when I want to deal with an issue when I'm talking with my wife; ‘Why do you have to be aggressive about this?’ She'll give me a different insight and I think it's just a God-given thing that was given to women. They have to bear the pains of carrying a baby for nine months...Then they have to go through this process of giving birth, you know, a do or die situation...And they have to overcome that. I mean, my gosh, talk about resilience, talk about strength.”*

R32 (male, President and CEO) believed there was a deficit of trust in the industry and that women had the relevant character traits to address this: *“The leadership style needed to address*

*the trust deficit, I believe, is a leadership style that has more feminine qualities than masculine qualities.”*

R13 (female, activist and ex-CEO WIMBIZ SA) brought in discussion around women and showing emotions: *“...men differ and fight in a meeting and one minute they’re shaking hands, because, you know, they have to make a decision and they have to move on. With us women, it becomes very emotional.”* R7 (male, CEO) picked up on women being accused of being too emotional, adding that perhaps what the world needed was care: *“I think women bring a different type of composure... And at the risk of sounding somewhat philosophical now what the world needs more today is care.”* However, R15 (female, MD) cautioned that leading with her emotions had not always worked for her: *“I lead with my heart. And sometimes to my own detriment...and I find that because I give of myself to anything and anybody, I expect them to do the same. But it's not like that in business.”* R21 (female CEO) found this behaviour to be a strength in a leader but that it came at a cost: *“I definitely feel stuff and take it far more personal and emotional... I think it's a strength, because it makes sure that what you do is purposeful leadership. Where it's not a strength, it is exhausting, because I have to work so much harder to keep mental bandwidth.”*

More boldly, R7 (male, CEO) claimed that the lack of women in the industry results in financial losses that would be difficult to recoup: *“The best quality outcomes are delivered by diverse teams and by not being at, at least 50% female, I believe we as an organisation are leaving money on the table and it'll take us years to get there.”* He added *“It's not rocket science, right. But yet we perpetuate it and we are struggling to change this.”* R19 (male, ex CEO) saw diversity as a matter of survival: *“Of course, I saw how a lot of companies died just because of not being ready to transform to reinvent themselves.”*

In a final and telling comment R7 (male, CEO) added: *“Women aren't here to make up the numbers. Women are here to contribute.”*

### **4.3.3 Opportunities**

The mining industry offers lucrative business opportunities. According to R8 (female, Executive Head at Minerals Council SA): *“The revenues, ...can be quite big. So, I think that's the reason then that there's a lot of opportunity, you know, for women in the industry.”* One

solution suggested by R30 (female, mining executive) was for the mining company to partner with a company in the community that does possess the necessary skills with the hope of a skills transfer. This process could involve several parties: *“So, this project is ring-fenced for a female. So, we do find a female, but she doesn't have the experience of road building. So, she goes and partners with a company that does have this experience...I said, “...what I'm expecting from this partnership is that there's going to be a skills transfer of sorts”.* R20 (female, MD) supported this. Mining has successfully operated with business owners in this manner before and can now practice this method when attempting to include more women-owned businesses: *“We need to handhold them in the process...the mining industry's good at doing that. It's now taking it from a general procurement perspective to be more specific from a procurement perspective.”*

On work being awarded based on experience, discussion with male leadership made clear that while these leaders do not necessarily exclude women, the criteria they use do because women do not have the necessary experience. This was confirmed by R23 (male, CEO) : *“So, yes, we do have initiatives....Again, we always have to consider the competitive edge.”* R32 (male, President and CEO) considered that experience was about understanding risk. Mining companies could leverage the supply side of procurement to ensure more women are included as this did not involve any risk: *“That could be a catalyst for having greater women's participation in the business of mining.”* R28 (female, Strategic Advisor) suggested that KPIs and an ESG matrix could improve the status quo. R15 (female, MD, company owner) agreed with this, noting that measuring and monitoring were essential: *“I think when I was saying KPI is important because then we are saying we are monitoring how you deal with your contractors.”*

R20 (female MD) added that opportunities should be publicised: *“You know, it's again to advocate to the women, go out there and publicise. We're looking for female-led companies that are involved in, you know, drilling and blasting is an example.”* A champion for women in mining, R23 (male, CEO) gave his perspective: *“But I think again, you've got to want to promote the concept of women in business, but you've got to be careful not to treat them different to men related businesses, because it will backfire.”* R15 (female, MD) held similar views: *“We need to know that we have the right to participate in the value chain of mining. Seek out the opportunities do our homework where necessary and be persistent even in the face of challenges...We too must build businesses that will outlive us, build with the future in mind*

as well as the future generations”. In her view, it was very important that mining companies were transparent and fair: *“The people that are on the procurement, they must not be biased. That's number one. Let them be transparent enough to give people that they know that they're capable of getting the job, give them. That everyone gets the same opportunity.”* The importance of opportunity resonated with R7 (male, CEO): *“I think what really is needed is for people to give it an opportunity... be it, the youth, be it women-led business, somebody needs that higher sense of purpose and a different level of commitment to want to create and provide that opportunity.”*

R15 (female, MD and founder of an organisation for women in mining business) explained why it was necessary to create an organisation specifically for women-owned businesses in mining: *“I think that's where organisations like Women in Mining Business are so important, because now we are saying let's create an open platform of where the opportunities are and try and make it as widely known as possible.”*

As Chairperson of WIMBIZ SA and owner-director of a mining resource company R14 is in a position to speak “truth to the power right now” for women in the business of mining who wish to play greater roles in that industry. Many interviewees commented that the opportunities for women to advance and be more included in the business of mining are there. As voiced by R25 (female, Executive in multinational mining house): *“And you have to learn to be able to get into a conversation. You can't be a little wallflower, not in this industry.”* R22 (female, Senior Advisor) agreed: *“For example, you cannot keep quiet in the boardroom where male colleagues and even female colleagues are making a joke that is female offensive.”* However, R3 (male, CEO) opposed the view that women need to be more assertive, despite having been assertive himself: *“But then I'm the first to acknowledge we don't only want that characteristic, you know, in leadership”* adding that there were *“better skills for leadership.”* He touched on the difficulties of leading if all the leaders were assertive: *“Can you imagine if we had 17 assertive people at the top of an organisation?”*

In the opinion of R7, a male senior leader in the industry, women should not tolerate discrimination: *“Women need to hold us as leadership accountable and call out that behaviour.”* R27 (female, MD) echoed these sentiments with an example of stereotyping: *“I think it is important for organisations not to put women into token positions, ...how many times do you sit in the boardroom and your HR director is always female or your marketing executive*

*is a female. Why is that stigma? But your operations are usually men which doesn't make sense to me."*

Acknowledging the many challenges that businesswomen face in the industry, interviewees noted that there were ways that women could make changes for themselves and the younger generation. As suggested by R7 (male, CEO) : *"Um, just continue banging the door. Continue being vocal. Women need to make their presence felt."* This interviewee re-emphasised the need for women in business to be seen and heard: *"Because it is in doing that, that the younger generations at the very bottom end of our people structures will be inspired when they see people that look like them actually being active, being vocal, being seen, being heard in how this business is run, in how it is led."*

R23, also a male CEO, made the point that the industry has to be cost effective while ensuring economic growth: *"I'm a staunch believer in capitalism and creating economic growth and therefore, we've got to be cost competitive at the same time"*. He added that there are two ways to increase the number of women in the industry: either replace men with women through the route of natural attrition or include more women as the organisation grows. In both cases, he believed that displacing men would have an adverse effect on the organisation: *"If you look at a mining operation, unless it's growing, you can only at best replace women with the natural attrition in your organisation, otherwise you've got to displace males...A stakeholder is being negatively affected by this. It's not good for all stakeholders."*

## **Conclusion**

The interviews conducted provided rich data and a range of views, both in response to the open-ended questions and as freely offered opinions and shared experiences. The presentation of the findings in this chapter followed on the emergent themes from the interview responses broken down into categories and subcategories. The three major themes identified were: The Evolving Landscape: Women in the Business of Mining; Barriers and Influencing Factors; and Drivers and Opportunities for Change. These findings will be further interpreted, analysed and theoretically contextualised in Chapter 5.

## Chapter 5: DISCUSSION OF FINDINGS

### 5.1 Introduction

Chapter 4 investigated the perspectives and experiences of 32 leaders and business owners involved in the mining industry. The thematic analysis of the rich data from these stakeholders' experiences and perspectives identified factors that influence the status of women in the business of mining. The discussion also produced a number of opportunities to overcome past and current barriers in terms of achieving gender equality.

While this thematic analysis allowed for the identification of patterns in the data, in Grounded Theory Methodology the causal relationships between these themes and their relationship to a larger more inclusive concept is required. Chapter 5 develops a theoretical framework (see Figure 14 below) which identifies these causal relationships with respect to the challenges currently facing women in business in mining and draws on both the interviews and literature. This framework, together with the findings from the thematic analysis, is subsequently used to suggest a co-operative and collaborative strategy for improving gender equity.

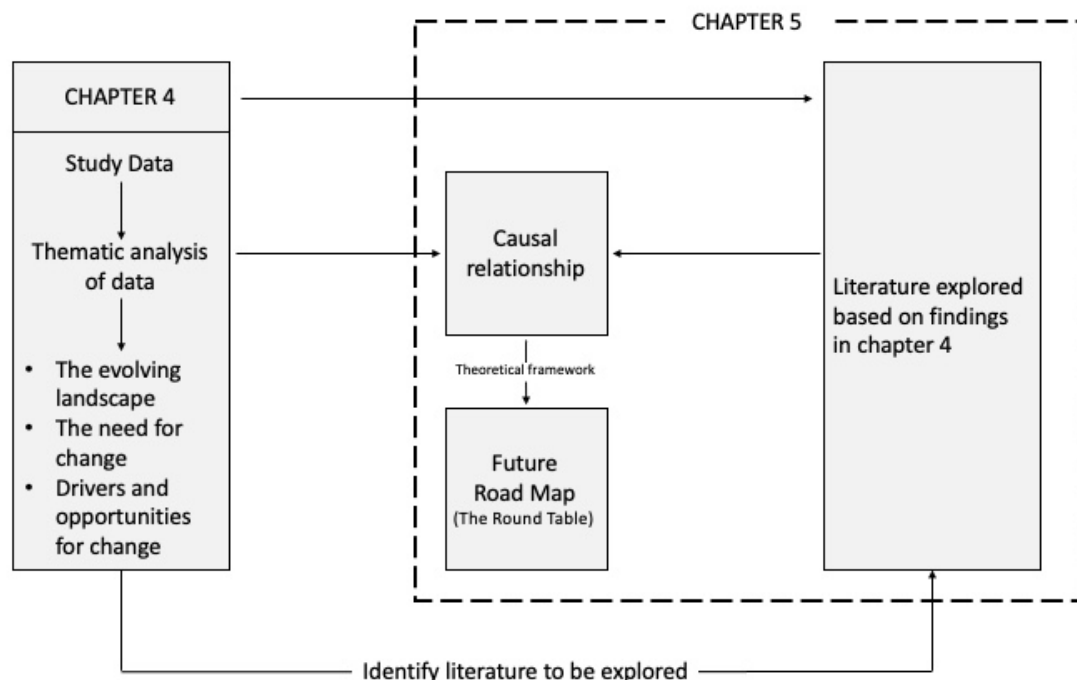


Figure 14: Introduction to Chapter 5

## 5.2 Developing the theoretical framework

### 5.2.1 Pervasive problems

The research and data analysis identified ubiquitous and pervasive problems in the mining industry despite the advances made. It is apparent from the interviews and the literature that even with the focus on diversity over the last two decades, traditional and pre-eminently male approaches and assumptions continue to dominate all levels of mining (Abrahamsson et al., 2017; Alexander, 2007). Addressing this lack of diversity is the starting point because from this emanate the main areas of exclusion.

The key challenges identified in this study can be broadly classified as exclusion and discrimination, as discussed in sub-sections 5.2.1.1 and 5.2.1.2 respectively.

#### 5.2.1.1 Exclusion

The interviews revealed two interconnected types of exclusion operating within the South African mining industry: (i) systemic exclusion (see Appendix 7 for the Grounded Theory evidence of this ensemble) that is endemic to the industry and leads to (ii) cultural exclusion (see Appendix 7 for the Grounded Theory evidence of this ensemble).

#### **Systemic exclusion**

**Systemic Exclusion** in the mining industry is mainly due to history. The UK-based Mines and Collieries Act of 1842 that intended to improve working conditions for women and children in mines provided the basis for equal employment for over 150 years. The provisions of this Act were used by the ILO (International Labour Organisation) to promote legislation across the world to protect women and children from working in poor conditions at the mines in the 1920s and 1930s. The effects of this law on employment and women's under-representation in mining were also felt in South Africa and this historical legacy remains (Lahiri-Dutt, 2019; Sesele et al., 2021).

Prior to 1995, South African legislation prohibited women from working underground (Business & Human Rights Resource Centre, 2018; Ntswana, 2015). This situation put men at an advantage, and continues to do so according to interviewees in this study. Men are awarded

larger tenders and contracts because they have the pre-requisite experience. Women-owned business interviewees have to subcontract to companies that are already contracted to the mining houses. Women have to supply the mines indirectly through other, men-owned, businesses because women-owned businesses are not invited to tender as they are perceived not to have the required expertise for underground work and that perception overrules their actual track record (or prevents them from establishing one). Representation of women in senior executive roles in procurement is lower than in any other professions. Globally, only 14% of procurement positions are filled by women (Burjek & Rafter, 2017; Everett, 2016). Interviewees mentioned that having a women leader would ensure that “*some procurement of activities that favours women*” take place. Indirectly, interviewees mentioned another systemic exclusion; their academic choices when entering university had been limited because of women not being allowed underground, and being excluded from the industry in general. Consequently, when the legislation changed, they were not qualified to work underground.

### **Cultural Exclusion**

**Cultural exclusion** refers to “the extent to which diverse values, norms and ways of living are accepted” (Khan et al., 2015, para. 4). According to literature, factors influencing the underrepresentation of women in mining are gender discrimination, lack of policies and male-dominated organisational culture (Çaha & Turgunali, 2016; Hill & Madden, 2016; Nimmesgern, 2016). Historically, mining has been seen as a man’s world and a place that strengthens strong forms of manhood, thus leading to the exclusion, marginalization and stigmatisation of women (Arnoldi, 2023; Behzadi, 2019; Lahiri-Dutt, 2012).

A number of comments in the results presented in Chapter 4 support the conclusion that the systemic exclusion of women in mining has led to both cultural exclusion and exclusion due to cultural biases. Cultural exclusion is manifested as women feeling dismissed, undermined, rejected, overlooked and not belonging (International Labour Organisation, 2017). The experiences of the interviewees are consistent with those reported in the literature. Interviewees also mentioned exclusion due to cultural biases which has led to stereotyping against women, lack of integration and the influence of male-dominated networks such as socialising in pubs and attending golf days. Despite women’s right to participate and make decisions, the female interviewees’ lived experience is otherwise, and again in line with existing literature (Blitt, 2012; Hill & Madden, 2016; Lahiri-Dutt, 2019).

Cultural exclusion and exclusion due to cultural biases are connected to systemic exclusion. The procurement process is evidence of this. Mining houses do not have a standard procedure for advertising opportunities so the tenders are often given to people they know. One female interviewee mentioned that even though she owned a structural engineering company, she was constantly redirected to tender for the supply of goods as the mining houses assumed that she was not competent enough to provide professional engineering services.

Social culture influences corporate culture because the former is carried through to the workplace. The responses from participants made it clear that cultural factors at work begin at home, and the literature emphasises work-family conflict as an obstacle that hinders women from entering and staying in the industry (Esteves, 2011). Both male and female interviewees felt that, based on the culture of their upbringing, there is often an unconscious bias towards certain tasks that a women should perform. Many interviewees comments supported this view *“old white men in power...we are the problem. Until we change, nothing else will change”* and *“if the men were hostile or disrespectful, you just sucked it up”* and *“a woman at some point is expected to know her place”*.

Some male interviewees attributed the exclusion of women in mining to *“occupational blindness- when you are used to a particular environment, you can't even see what's supposed to be of concern or wrong”* and *“lack of awareness.”* Others felt threatened by women in leadership positions, and often reacted by defaulting to traditional, i.e. male-dominant, ways of doing things. Two male interviewees alluded to the industry not truly including women even though their presence is accepted. Many women interviewees cited how challenges around social opportunities at work limited their career progression. Women were often excluded from regular golf days and pub socials. The “boys club” alienated women from meetings and thus from participating in decision-making as so often business networks were established through these events. More than half of the interviewees agreed that *“It's still a very un-woman friendly place. Everything. The culture, the habits...the change houses.”* They added that despite having to demonstrate their competency in order to be heard, they still were not always heard. Women interviewees also mentioned having to work harder and for a longer period to prove their capability.

A common consequence of cultural exclusion expressed by the women interviewees was how they felt like imposters, despite having all the pre-requisite qualifications to be an entrepreneur

or leader in the mining industry. This response is consistent with the literature that discusses women doubting themselves and their capabilities as successful entrepreneurs (Ladge et al., 2019). Known as imposter phenomenon or imposter syndrome this self-perception often prevents women succeeding and growing their businesses. One of the reasons for this is that entrepreneurship has historically been predominantly male (Ladge et al., 2019).

Access to finance was given as another deterrent to exploring entrepreneurial opportunities within the mining sector as mentioned by interviewees “*The problem also is the access to finance*” and “*another limitation is that I don’t have access to funds*”. This concern is supported by the literature (Wasiuzzaman & Nurdin, 2019). It should be also noted that gender biases have an impact on the ability of women-led businesses to gain access to finance in general (Malmström & Wincent, 2018; Ogundana et al., 2021). This systemic exclusion stems from cultural biases.

### **5.2.1.2 Discrimination**

**Discrimination** can be described as disadvantageous treatment of certain people in comparison to others while exclusion is to be excluded from the system (Stanford Encyclopedia of Philosophy, 2004). The traits presented by the person being discriminated against are not under their control (Anderson, 2017). During this research study (see Appendix 7 for the Grounded Theory evidence of this ensemble), discrimination manifested itself amongst interviewees as bias, intolerance, prejudice, disrespect, bullying, lack of support, lack of prioritization, feelings of inadequacy and of otherness. Interviewees mentioned “*being bullied by senior managers*”, “*a male counterpart will either be heard firstly or very often and “men were hostile or disrespectful.*” All of this is consistent with the literature that confirms women are still subjected to discrimination (Botha, 2016; Norberg & Fältholm, 2018).

The discrimination faced by 53% of the women in the mining industry discourages women from entering the business hence giving rise to underrepresentation of women in mining (Kansake et al., 2021). According to a recent Rio Tinto report, it is clear that “everyday sexism is a barrier to women’s progression and inclusion” (Elizabeth Broderick & Co, 2022, p. 38). One practice that gives evidence of this is in supply chain management. This is

dominated by men and those business opportunities offered to women are mainly tangential to actual business. Gender discrimination and misogyny often prevails (Kansake et al., 2021).

## 5.2.2 Mitigating factors

The interviews revealed how exclusion and discrimination both interconnect and differ, but the insights also offered opportunities for change.

### 5.2.2.1 Diversification

In order to overcome both systemic and cultural exclusion, quotas have been established to promote diversification (see Appendix 7 for the Grounded Theory evidence of this ensemble). The proposed Mining Charter 3 stipulates that 5% spend of procurement should be allocated to women and youth (Leon & Hogg, 2019; Minerals Council South Africa, 2019; Oosthuizen, 2019). While these figures, if enforced, may sound like progress, 51% of South Africa's population is women so compliance with these quotas will not result in adequate demographic representation. Apart from being inadequate, regulatory quotas are seldom enforced, either by the government or the industry. No further surveys were conducted as to whether these quotas work or are being utilised. Although most interviewees were able to discuss the diversification of the labour workforce in their organisation, only one of the 32 interviewees said that she was *“being deliberate about enforcing the 5%.”* Many interviewees held the view that the focus on gender equality had been diverted because legislation now required prioritisation to be given to remedying historical racial equality. This confirms the view that regulations that enforce quotas do make a difference as *“when people are measured, then they do things very differently.”* In this regard diversification appears to be largely nominal as it exists in name but not as things really are.

Literature confirms that women remain underrepresented in executive positions within the minerals sector despite their positive influence on governance, financial, social and environmental metrics (Lückerath-Rovers, 2013). It has been found that despite gender quotas not being the “magic recipe” in solving gender issues, they are useful in promoting women empowerment without substantial economic costs (Profeta, 2017). Due to the lack of effective diversification through quotas, there are not enough women in business in the

industry to be role models and this lack of role models has contributed to the underrepresentation of woman in mining (Hill et al., 2010; Nimmegern, 2016). Many of the women cited the need for role models as they believed that *“You cannot become what you can't see”* and *“In the mining industry you almost need to be like the generation before you for you to be able to step into their shoes.”*

Notably, there are no quotas or regulations enforced around procurement of services from women-owned businesses in the mining sector and interviewees in leadership positions within the industry confirmed that they were not making a concerted effort, and have no future plan in place, to include women at the business level. This is the reason why this research on women owned businesses in the mining industry is crucial. Surprisingly, many of the female CEOs of mining houses had not even thought about including women-owned businesses.

Based on the findings of this research, current legislation is not only inadequate but is often not enforced, as evidenced by the lack of any real incentive to transform. The pace of transformation is therefore slow. Some mining companies do have a local content component included in their preferential procurement policies. This policy does not specifically refer to procurement from women owned businesses (Dilworth & Smith, 1992). Legislation is insufficient to ensure equality, as a senior government official commented on. This interviewee gave the example of the Wage Bill as a policy that had had no effect because it was not adhered to: *“Policy and all these laws can be there, but if the environment, again, is not conducive, nothing will happen.”*

It is clear that societal pressure has not been sufficient to move the mining sector forward.

#### **5.2.2.2. Inclusion**

*“Women aren't here to make up the numbers. Women are here to contribute.”*

**Inclusion** in the workplace has to do with “how organizations, groups, their leaders, and their members provide ways that allow everyone, across multiple types of differences, to participate, contribute, have a voice, and feel that they are connected and belong, all without losing individual uniqueness or having to give up valuable identities or aspects of themselves”

(Ferdman, 2013). In other words, all identities that make up an individual are accepted, embraced, respected and valued in an inclusive workplace (Taylor, 2017).

Inclusion in the workplace is defined as an environment that values all employees and how their differences add value to the company and its outcomes wherein bias, discrimination and lack of opportunity are nullified (Basumallick, 2023).

While the view emerging from this study (see Appendix 7 for the Grounded Theory evidence of this ensemble), as well as literature reports, is that quotas are necessary in order to diversify, the findings indicate that, despite nominal commitment to gender diversity by most corporate mining companies, cultural exclusion and discrimination on the basis of gender are still prevalent (Henderson & Williams, 2013). This is consistent with the conclusions reached by Botha (2018) who reported that whilst quotas play a part in promoting change, women are still subject to various social, physiological, structural and employment barriers (Botha, 2018, p. 28).

This study found that too often women in the mining workforce are, or believe themselves to be, token appointments made to meet the tick box requirement, and are expected to integrate into the existing culture and conform to a narrative written from a male perspective: “...sometimes we want women or we want people who are a minority, we hire them for their diversity, but we want them to conform.” This is in contradiction to the belief, both among interviewees in this study and other authors (see for example Hyder, 2019; Korn Ferry Group, 2016) that women add value precisely because of their unique attributes, particularly their so-called soft skills, such as emotional intelligence, that include resilience, the ability to communicate orally and in writing, collaborate, network and critical thinking. Comments that support this view from the data for both women in the workforce and women in the business of mining include that men “are not good at multitasking” or “not very empathetic” while women are “much more constructive”, “have more empathy and compassion” and “tend to create social stability”. As emphasized by Ladge et al. (2019), in order for women to reach their full potential as entrepreneurs and to contribute to their organisations, maintaining their identity is important. This cannot be achieved unless women are included in the true sense of the word.

### 5.2.3 Causal relationships

In the interviews the concepts of exclusion, both systemic and cultural, and of discrimination, diversity and inclusion were generally used interchangeably but in practice the differences are significant although interconnected. Intuitively, one would expect that overcoming exclusion would automatically lead to inclusion. This is because too often attempts to drive gender transformation are limited to addressing diversity, largely through quotas, without sufficient efforts made to overcome cultural exclusion and to prevent discrimination.

As shown in Figure 15, diversification is an essential first step towards achieving gender equity as without representation, particularly on a leadership level, transformation cannot be achieved. However, in order to achieve an inclusive environment, cultural issues and discrimination also need to be addressed.

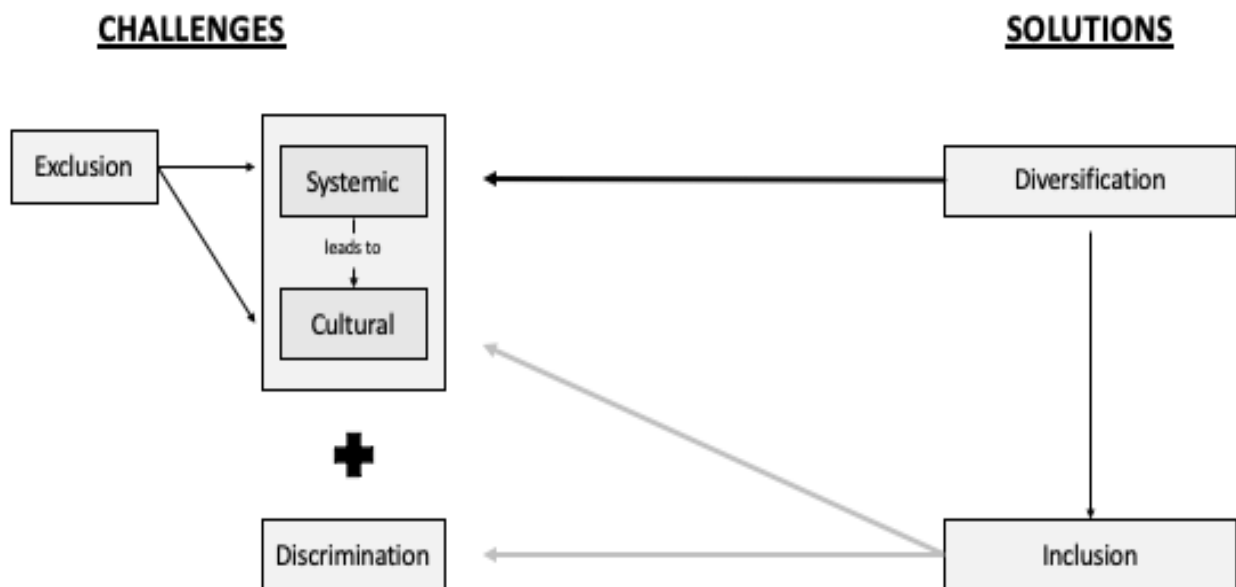


Figure 15: Theoretical framework

### 5.3 Developing a co-operative strategy

The findings as reported in Chapter 4 and section 5.2 in this chapter have shown that addressing the challenges of gender inclusivity is going to require a consolidated plan of action, involving a number of key actors. A collaborative and multi-actor approach is required to address these challenges. The multi-actor approach is a collaborative process used to address complex problems involving various stakeholders (actors) as they cannot be solved by any single actor alone (Schwarz, 2024). These initiatives may require changes in mindset, organizational

culture, staff competencies, procedures and systems (Ho, 2021). Multi-actor collaboration has previously demonstrated success in the Green and Inclusive Energy program, enhancing women's development and supporting sustainable change (Ho, 2021; Kuenkel, 2015; Venugopalan et al., 2021).

To mitigate the effects of the challenges outlined in the theoretical framework and to achieve true inclusion, collaborative participation by all these different actors is needed. This model, illustrated in Figure 16 below, includes the mining companies, the government, the Minerals Council South Africa, the education sector and women in business, leadership and women coming up the pipeline in the mining industry.

This model is intended to act as a framework to assist the South African mining industry in achieving gender equity in business in the mining sector. As discussed below, it has been developed based on the outcomes and findings from this research and it inherently addresses concerns and serves as a unique model to address gender equity shortcomings in the industry.

I have named the model the "Gender Inclusivity Round Table". The significance of the "Round Table" is that all stakeholders have an equal chance to express an opinion and all parties are thought of as equal in importance ("Roundtable", 2023). The five legs represent the five groups of stakeholders required to ensure change. Key concepts and application of the model are discussed below.

The objective of the Gender Inclusivity Round Table is to address gender inequality and create an environment which enables women's greater participation and advancement in the business of mining and beyond. It is clear from the empirical data that in order to improve the chances of successful change, the implementation process of this model cannot succeed if it is followed in isolation by any of the stakeholders. Listed below are the five stakeholders and explanations of the proposed model that can be used to increase gender equity in mining (see Figure 16 below).

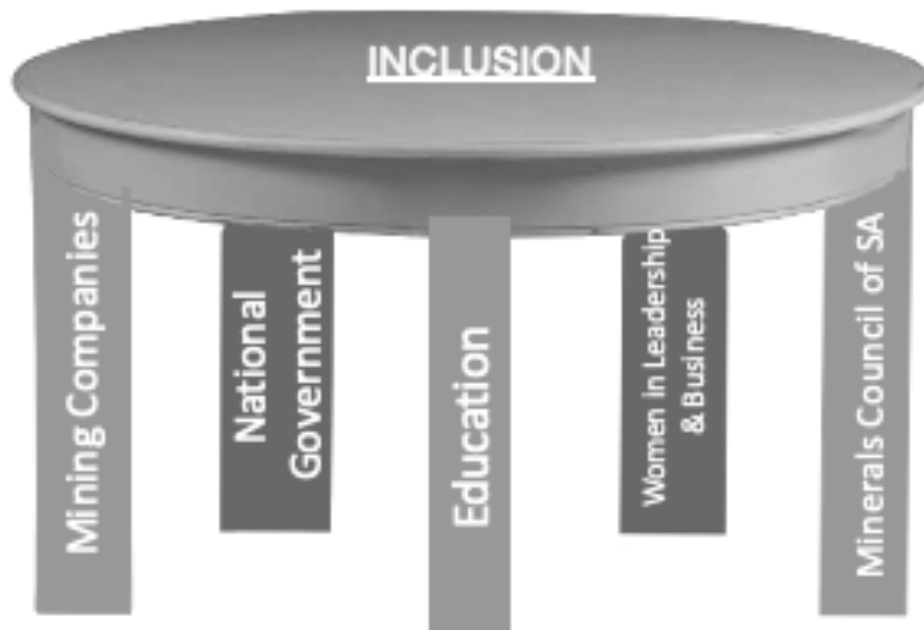


Figure 16: The Gender Inclusivity Round Table

The first leg of the table refers to the core **mining companies** who drive the business of mining. The theoretical framework developed from the interview data makes it clear that mining companies need to understand the difference between a diversity quota to meet the requirements of employment equity and the need to create an inclusive workplace. Cultural and mindset changes are also required.

In particular, a concerted effort is required to include women in business on the agenda as interviews with CEOs have shown that this is not receiving any attention. One way to ensure that this is achieved would be to include it as a Key Performance Indicator (KPI) at senior levels. Improving safety is an example where success was achieved by making it a KPI at senior levels (Wretstrand et al., 2014). Being measured on accountability for safety at these levels changed the culture in the industry in terms of safety responsibility. Emphasizing inclusion through accountability (KPIs) will also contribute to a positive, performance-driven culture. As indicated by one of the interviewees, natural attrition within the industry should be seen as an opportunity to rapidly increase gender inclusion without men feeling threatened. This process will also assist with the continuous evaluation of effectiveness.

Another challenge identified in the findings was that women felt that they did not have equal access to procurement opportunities. In order to ensure that bidders are given equal opportunity, the tender process needs to guarantee a fair and transparent selection process. As

indicated by a number of interviewees, tendering opportunities should be publicised in order to ensure equal access to all potential bidders. Procurement management is currently dominated by men; a transparent process will ensure equal opportunity. Many industry leaders explained that their reluctance to award tenders to women-owned businesses was due to women's lack of experience, or the perception of this, which stems from historical systemic exclusion. However, women do not need mining experience to procure goods so more of these types of tenders can be awarded to women. In this way more women can be introduced to the industry in a process which could ultimately ensure that total procurement spend is equally distributed between both male and female-owned businesses.

The second leg of the table represents **national government**. Findings from the interview data make it clear that legislation and policies for equal inclusion of women in both the business of mining and the private sector at large are inadequate. The Mining Charter has not yet been finalized, so the opportunity is there for more conversations around improving the suggested legislation. As indicated by one of the interviewees, the mining industry can be regulated into compliance because mining can be stopped if it is not compliant. For instance, Black Economic Empowerment (BEE) was identified as a key driver that had promoted the economic transition into South Africa's democratic era and was promoted through the elements of mine ownership, enterprise development, procurement and employment equity. As much as we are not where we should be with BEE, progress has been made (Leon, 2012). According to interviewees, this process has positively influenced safety and BEE so regulation for greater inclusion of women in business could be effective. Mining company organisational change - the first leg - is crucial but meanwhile current legislation needs to be enforced.

The third leg of the table represents the involvement of the **Minerals Council of South Africa**, an organization that provides strategic support and advisory input to the South African mining industry. A key role of the Minerals Council South Africa is to facilitate interaction among mining employers in order to examine policy issues and other matters of mutual concern so as to crystallize and define desirable industry standpoints. A variety of initiatives are in place to promote collaboration between members ([www.mineralscouncil.org.za](http://www.mineralscouncil.org.za)). The Council has a proven track record of supporting and encouraging the mining industry and government to include women in the mining workforce (Minerals Council South Africa, 2020, 2023). During my interview with a senior executive at the Council, she confirmed that they were working intensely on greater inclusion of women in the workforce and had not yet got around to women

in business in the industry. However, a speech on 22 June 2023 the President of the Minerals Council, Nolitha Fakude, acknowledged that there needed to be a focus on gender equity and empowering of women-owned businesses (Minerals Council South Africa, 2023). This greater involvement will definitely help both private sector and government to work together to include more women in the business of mining. Another suggestion made by an interviewee was that true empowerment of women in business should be celebrated and awarded as this recognition will drive companies to be more inclusive and strive to be better. This too is an initiative that can be driven by the Minerals Council.

The fourth leg of the table represents the **education sector**. Many interviewees suggested training for unconscious bias at all levels, of diversity and inclusion training, of training men and women together, and of the importance of mentorship. A similar suggestion emerged from the literature with Pialman & de Groot (2022) suggesting that a gender perspective should be included in the curriculum for energy studies to promote gender diversity and inclusion. Literature also suggests that culturally determined gender roles “influence the classroom environment and knowledge acquisition” (Pugliese, 2021, p. 204). Interestingly, it has been reported that there is greater participation of women in training and growth when the organisation is led by a woman (Sethi et al., 2022). This provides further impetus to the need to promote more women to leadership positions within all mining-related sectors.

The fifth and final leg of the table represents what **women in leadership, women in business and women coming up the pipeline** need to do in order to be prepared for, and aware of, the mining industry and its opportunities. Arising from the findings in the interview data, it has been suggested that women need to prepare for opportunities by equipping themselves and keeping abreast of the knowledge of business and mining. A good starting point would be to become members of organisations such as Women in Business SA (WIMBIZ). This is a non-fee paying, non-profit organisation established to create a platform that unifies women entrepreneurs and professionals in the mining sector while unlocking business opportunities for them across the mining value chain (Women in Mining Business, 2023). There are also other organisations that women could become members of that would help them keep up with global key trends and new updates of the mining industry. Women in Mining SA (WIMSA) is committed to ensuring that in the next decade women will make up 30-40% of South Africa’s mining industry with 50% of management being women. International Women in Mining (IWIM) focuses on gender equity in mining internationally and Women in Mining UK (WIM

UK) focuses on employment, retention and advancement of women in the mining and minerals industry (International Women in Mining, 2023; Minerals Council South Africa, 2023; Women in mining UK, 2023). This shared knowledge and support will give women the confidence to contribute to making changes by *“being active, being vocal, being seen, being heard in how this business is run, in how it is led”* as emphasised by one of the interviewees. Another international organisation in full support of and working towards women’s full participation is the United Nations Women, an organisation which works with government and civil society to set standards for achieving gender equality (Puri, 2016).

A challenge faced by many women’s organisations is the lack of support; it has been reported that less than 1% of Official Development Assistance for gender equality is directed towards them (Harper, 2023). This illustrates the value of the collaborative approach as support from the other legs of the table could improve this situation.

Women business owners also need to be recognized for their ability to hire the necessary skills and respond to opportunities that require particular experience. This is a suggestion from my own personal experience. I have owned a company specializing in underground roof support and ventilation for 23 years, having bought a 10% share initially but acquiring 100% shareholding within two years thereafter. I had no mining experience but hired the necessary, qualified skills. My company has been constantly selected as the top company with regards to Health, Safety, Environment and Community (HSEC) audits despite my not having a professional qualification in mining nor mining experience at the beginning of my career as a businesswoman in the mining industry.

In order to achieve true **inclusion** (the top of the table), all five stakeholders need to come together on a regular basis to equally exchange their perspectives and ideas with deliberate techniques on how to address gender inequality in order to create an environment which enables women's greater participation and advancement in the business of mining and beyond.



Figure 17: Map of most senior level Interviewees from above institutions

The results of this research, which included interviews with senior people in the business of mining from the above institutions (figure 17), testify to the complex nature of the exclusionary and discriminatory practices which women encounter in the industry. Likewise, the solution, or any process towards a solution, needs to be complex hence the Gender Inclusivity Round Table model which draws on contributions from the five main stakeholders in the industry.

## Chapter 6: CONCLUSIONS and RECOMMENDATIONS

### 6.1 Introduction

The primary purpose of this study was to explore why women in the business of mining have not become empowered and how their experiences can be used to formulate strategies for the empowerment of women in the South African mining industry. Actions taken on this greater understanding of the research insights can positively address economic growth, private and public sector performance and income inequality.

To achieve this aim, three objectives were formulated. The first objective was to investigate the current landscape of women participating in the business side of the mining industry in South Africa. The second research objective was to investigate the key barriers and drivers with respect to improving participation of women in the business of mining. The third objective was to investigate what has to change to bring more women into business in the mining industry.

A constructivist grounded theory approach was adopted for this study because in this research method the theory is developed from data when little is known about the phenomenon. In line with this approach, an initial literature review was undertaken to provide context on the current research around women in mining in general. Interviews were then conducted and a thematic analysis was completed. Data and literature were then combined to develop the theory in terms of the interrelated challenges and mitigation approaches. Finally, the collaborative roles that different stakeholders play in promoting gender inclusion were interrogated.

The findings from this investigation formed the basis from which the “Gender Inclusivity Round Table” strategy was developed. The model proposes that all stakeholders in the South African mining industry meet on a regular basis in order to address a number of critical aspects in order to overcome the exclusion and discrimination of women in business in the industry.

In this chapter, I present my key findings in relation to my research questions (Section 6.1) and provide recommendations for further research and application of the proposed Gender Inclusivity Round Table (Sections 6.3 and 6.4) based on the findings of this thesis.

## 6.2 Key Findings

### 6.2.1 Research Question 1

*What is the evolving landscape of women participating in the business side of the mining industry in South Africa?*

Thirty-two stakeholders were interviewed in order to ascertain what the current landscape of women participating in the business side of the mining industry in South Africa was. The interviews showed that the landscape has evolved over time. Historically, women were formally excluded from mining. This changed in 1996 and efforts to integrate women have increased over the past 25 years, but insufficiently. The proposed Mining Charter stipulates that 5% spend of procurement should be allocated to women and youth. This is not enforced. Despite the improved representation of women in the workforce in mining there is little evidence of women advancing in the actual business of mining.

The interviews also pointed to on-going and pervasive exclusion. Women do not have equal opportunity access because mining companies do not have a standard procedure for advertising opportunities and the tenders are often given to people they know, invariably men. The problems were evident from the range of challenges that women business owners faced and the shared experiences that women feel undermined, overlooked, suffered from imposter syndrome and gender discrimination and were subjected to exclusion arising from ‘occupational blindness’. Many of these businesswomen confirmed that for their goods and services to be supplied to mines, they often have to supply other, male-owned, businesses. The procurement process in mining houses is led mainly by men; none of the interviewees representing mining houses could confirm that they had any plan to include women in their business.

The theoretical analysis points to the fact that the historical, systemic exclusion, whereby women were prohibited from many of the core activities in the sector, has led to a continuing culture of exclusion where men still dominate. Women are made to feel inadequate and discriminated against in processes and behaviours which manifest as biases, prejudice, disrespect and bullying.

The common and shared experience of the women interviewed was that their position in mining remains marginalised.

### **6.2.2 Research Question 2**

*What are the key barriers and influencing factors with respect to improving participation of women in the business of mining?*

The key barriers and influencing factors required to improve the participation of women in mining were presented in five themes: (1) leadership gap and style; (2) societal and corporate culture; (3) legislation; (4) training and mentoring; and (5) business systems.

#### **(i) Leadership**

One of the difficulties in representing women is the fact that there are so few women in leadership. This also contributes to the lack of role models and the few women in leadership positions found that their legitimacy was continuously questioned. Many of the women cited the need for role models as they believed that *“you cannot become what you can't see”* and that *“role modelling is a very important, powerful place”*. Due to history, the leadership narrative has been written from a male perspective and a woman's leadership style is often not appreciated or acknowledged. Interviewees described a woman's leadership style as *“less of the alpha dominated type behaviour”*, *“more empathy and compassion”* and *“more inclusivity when they lead”*. For meaningful reform to happen, many interviewees were of the view that changes in the industry need to happen at the level of leadership within the sector as leaders play a key role in creating a culture that is conducive to inclusion within an organisation.

#### **(ii) Societal and corporate culture**

There were very strong views around gender issues being deeply cultural due to upbringing, and that leadership had a significant responsibility to ensure change. Many interviewees admitted to experiencing difficulties in changing the prevailing mindset. Despite women being employed for the diversity value, they are expected to conform, and men have difficulty with working with women because they cannot identify with them. Family responsibilities limited

women's ability to participate in socialising opportunities such as after-hours events and playing golf, thereby preventing women from becoming socialised in the prevailing culture and thus remain excluded. Societal norms regarding gender roles perpetuate gender discrimination in the workplace.

### **(iii) Legislation**

Current legislation regarding opportunities for women in business in the mining industry is neither adequate nor enforced, resulting in a slow pace of transformation. Legislation is essential in order to start change. An example of how legislation has influenced change in the mining industry is the Black Economic Empowerment (BEE) policy. The mining industry has had no option but to comply as the policy is enforced by government. Government therefore can play a role in terms of promoting diversity. However, interviewees expressed their deep concern that South Africa's government was not capable of ensuring that appropriate policies are written or enforced in general. Although enforcing targets will have an impact, many interviewees agreed that leaders needed to believe in the change and proactively enable and encourage gender inclusion.

### **(iv) Training and mentoring**

Even though interviewees stressed the importance of bringing men and women together through training and mentorship opportunities, many women business owners found that they and their employees were excluded from training opportunities. The lack of role models and mentors for women in business has had several negative effects as mentors could expand networks and provide industry knowledge and without mentorship these opportunities were less accessible. Many interviewees supported training interventions to deal with unconscious bias at various levels in order to think differently.

### **(v) Business Systems**

Small businesses face challenges to get started and survive due to complex and dysfunctional business systems with the mining companies. Supply chain management is predominantly male

and business opportunities offered to women are mainly tangential to actual business (Kansake et al., 2021). Long-term contracts were already in place with male-owned businesses restricting the ability of female owners to source business. The lack of long-term contracts restricted women's ability to source funding. Gender biases have also impacted the ability for women-led businesses to gain access to finance in general (Malmström & Wincent, 2018; Ogundana et al., 2021). Fortunately, institutes such as the UNDP Funding Windows and the World Bank's Women Entrepreneurs Finance Initiative (We-Fi) have started to fund women's initiatives (undp.org, 2024; World Bank, 2021). Mining houses do not have a standard procedure for advertising tender opportunities, so tenders are often given to companies they know.

Women felt that there was a lack of integration and that the influence of male-dominated networks such as socialising in pubs and attending golf days left them excluded. This alienated women from meetings and thus from participating in decision-making as so often business networks were established through these events. A concerted effort from the mining companies to include women in business is required as currently it is not receiving any attention.

The interviewees' experiences with regards to change confirmed that "*I think it has come a long way*" and "*So I think it's changing slowly*". This progress is, however, offset by entrenched barriers and influenced by long-held perceptions and practices.

### **6.2.3 Research Question 3**

*What needs to change to bring more women into business in the mining industry?*

There has been growing recognition of the value of women's perspectives and leadership in the mining industry despite the challenges. The primary drivers for change to bring more women into the mining industry comprised three themes: (1) society pressure; (2) understanding the values women bring to mining; and (3) opportunities.

#### **(i) Society pressure**

Interviewees commented that society has the power to influence investment and legislation and that including women-owned businesses was a means of attracting more women into the

business of mining. When society holds companies accountable with regards to transformation and change society has the power to influence that change.

Mining companies can lose their licence to operate if they do not comply with the law. This is an industry that can be regulated into compliance, and this is where government intervention is crucial. In its role as a mining industry employers' organisation that works with government and the private sector, the Minerals Council of South Africa should include women in business in mining on their agenda. To date their focus for women has only been in the workforce. Small businesses face huge challenges getting started and surviving due to complex and dysfunctional business systems within the mining companies. Long-term contracts already in place with male-owned businesses restrict the ability of women owners to source business. A further repercussion is that this lack of long-term contracts restricts women's ability to source funding.

#### **(ii) Understanding the value that women bring to the industry**

According to interviewees, empathy and compassion were key attributes of women's leadership, possibly stemming from their inherent maternal instinct. Women also contribute to technical aspects, cost saving and leadership in mining. Many interviewees pointed out that the current leadership was not serving the mining industry well and that the alpha male type of behaviour was no longer appropriate. Having a diverse team is where the power lies to improve business and communities as there was a correlation between empowered women and the education of children. In order to promote inclusivity and drive gender transformation, it is important that companies recognize the value of women in senior positions.

#### **(iii) Opportunities**

The mining industry has the potential to offer lucrative business opportunities. However, women are not given these opportunities due to their lack of experience, real or perceived. A suggestion from interviewees that would mitigate these circumstances was for mining companies to partner with a company in the community with the hope of a skills transfer. The mining company could leverage the supply side of procurement to introduce more women to the industry as this does not involve any risk. KPIs and ESG matrices could also assist the process as what is measured and has a financial impact gets done.

### 6.3 Looking ahead

The broader significance of this dissertation's research findings is the different perspectives that women can bring in order to transform the mining industry. To identify this, I first investigated the current landscape of women participating in the business side of the mining industry in South Africa. Secondly, I was able to investigate what the key barriers and drivers were with respect to improving participation of women in the business of mining. Thirdly, I investigated what needed to change to bring more women into business in the mining industry.

The findings show that, despite a commitment to gender diversity from mining companies, gender exclusion and discrimination are still prevalent. Change is far too slow. This is particularly the case for women in the business of mining. It is reflected in my own experience as a woman in the business of mining. As an owner of a company performing one of the highest risk jobs in the mining industry, I developed many innovations to improve mining and safety, including a coverall designed and patented especially for women in 2015. In fact, as I was writing this chapter in August 2023, the Chief Inspector of Mines issued an updated guideline outlining the considerations that mines should incorporate into the Mandatory Codes of Practice (COP) to tackle the health and safety concerns that women have faced from using Personal Protective Equipment (PPE) designed for men. This 2023 Guideline expands the scope beyond the provision of PPE to now also providing guidelines on the selection of PPE, taking into consideration a woman's anatomical and physiological attributes. Women have been working underground in the South African mining industry for almost 24 years, and only now are their anatomical and physiological attributes being taken into consideration. This is not an isolated occurrence. Another example is that of Natalie Killassey, a female owner of a social innovation company in the mining industry who promoted innovations in underground mine safety yet who had difficulties in getting her lifesaving innovations adopted (Hall, 2008). These experiences seem to indicate how often women in the business of mining are consulted merely as another tick box exercise for Corporate Social Initiative (CSI) but they and their contributions are not included in the true sense of the word. (Stitch wise 2009).

For an individual, pushing for change is a difficult, lonely and dispiriting process. Many female interviewees felt undermined, overlooked, suffered from imposter syndrome and gender discrimination and felt the impact of occupational blindness. These findings relate to my own

experience as an entrepreneur in the mining industry since 2000. I was often excluded from meetings, training and social events despite being the owner of the contracting firm specialising in underground roof support and ventilation, one of the highest risk areas in mining. Shockingly, I discovered 23 years later that status quo has not changed. One of the interviewees, a female business owner, was a service provider at the same global mining house as I was then and is still experiencing the same challenges. Therefore, structural initiatives pushing for genuine inclusivity are essential. Recognising that many of the male interviewees are advocates for gender equity, perhaps the formation of an industry-wide Allies Forum through which male leaders in mining can assist with transformation should be established.

Women's organisations such as WIM, WIMUK, WIMSA and WIMBIZ have a key role to play. WIMBIZ provides an open platform where the opportunities to tender from all mines can be advertised, thereby ensuring opportunities are widely known while supporting, mentoring and advocating for the inclusion of women in business. Focussed on the mining workforce WIMSA provides mentorship and training and has committed to measurable improvements in the employment of women in the industry generally and particularly at the management level. WIM UK is also focussed on the labour workforce and advancing women in mining while IWIM focusses on gender equality globally. Interviewees in this research have provided great practical suggestions for leadership transformation; perhaps an industry-wide Leadership Academy for mining could be established in order to nurture the next generation of leaders across the sector.

There is no data in this study or any other study that suggests that the mining industry has consistent policies, cultures and values which will accelerate the integration of women in the business of mining. The implementation of ideas and strategies is a complex and difficult task, success is not automatic but transformation is essential, with a particular focus on gender inclusion. The key insight from this research project is that the mining industry needs to move from a nominal policy of diversity to one of true inclusion. Most interviewees were of the view that in order for true reform to take place it had to begin with leadership.

My research shows clearly that the failure of diversity policies has too often resulted in tokenism. Although the intention behind legislation such as the Employment Equity Act and Broad-based Black Economic Empowerment (BBBEE) was to advance economic transformation and improve participation of Black South Africans, this has now largely

defaulted to a tick-box exercise. As further evidence, according to Mining Charter 3 regulations, procurement to women-owned businesses and youth should be 5% but this is not the situation in reality. The regulation is not being enforced so it does not even form part of a tick box exercise.

True inclusion will bring a broader perspective into the leadership of mining, breaking away from the male dominated traditions of the sector. Excluding women from this discussion excludes the perspectives of 51% of South Africa's population. Without true inclusion, society, the economy and industries lose out on the significant value that currently excluded groups, such as professional women, can bring.

As much as we can blame government for the challenges faced by the mining industry, a number of aspects need to be addressed in order to improve the chances of successful change implementation. It is clear from the empirical data that the implementation process cannot exist or be handled in isolation by government or any of the stakeholders on their own. United efforts from multiple actors within the mining sector are needed to drive for change that is essential for the industry, the economy and broader society.

#### **6.4 Implementation of the Round Table**

I believe that, had I brought all 32 of my interviewees together in a single conversation, this would in itself have created a very powerful forum whose contribution could enable the transformation required in the mining industry. Therefore, in my thank-you email to all 32 of my interviewees, I intend proposing to them that we take the lead in giving substance to the Gender Inclusivity Round Table. I propose that we do this by drawing on our industry knowledge and leadership experience to convene the round table at a transformative conference for achieving gender transformation across South African mining.

The crucial question is the form that this transforming intervention should take. The discussion which follows demonstrates how the concept of the Gender Inclusivity Round Table could be implemented in South Africa by suggesting answers to the following six practical questions:

- Which organisation should lead the process of implementation?
- Who should be represented?
- What should be the mandate guiding the process?

- What should be the priorities for consideration?
- What should be the timeline?
- How should the process of transformation of the business of mining be monitored and evaluated?

### **Which organisation should lead the process of implementation?**

The Minerals Council should take the lead at this conference to convene the Gender Inclusivity Round Table with the aim of achieving gender transformation across the South African mining industry. The Minerals Council is an employers' organisation that supports and promotes their members' interests by providing strategic support and advice. The Council already acts as a principal advocate for mining in South Africa to government by communicating policies endorsed by its 73 members. This membership represents 90% of South African mineral production by value.

### **Who should be represented?**

In addition to the Minerals Council of South Africa, there should be representatives from each of the other four legs of the Gender Inclusivity Round Table: mining companies; women in leadership and business; the mining organisations; the education and training sector; and national government.

Mining Companies' representatives should cover all the sub-sectors of the mining industry to ensure a full range of perspectives. This will include some of the interviewees in this research as well as representatives from other sub-sectors such as oil and gas extraction, coal mining, metal ore mining, nonmetallic mineral mining and quarrying, and mining support activities.

Women in leadership and in business should be represented by the various organisations founded with the express purpose of driving gender transformation in these areas; for example, Women in Business SA (WIMBIZ) and Women in Mining SA (WIMSA). It will also be important to benchmark transformation in South Africa against international trends and standards. This can be achieved by including International Women in Mining (IWIM) and Women in Mining UK (WIM UK).

The role of education and training will be significant in the transformation process. This sector's responsibility is to ensure both a pipeline of women graduates into the mining sector and opportunities for work-integrated learning and professional development for women. The Technical and Vocational Education and Training (TVET) sector could be represented by the Technical and Vocational Education and Training Colleges Governors' Council (TVETCGC; <https://tvetcgc.org>). Universities could be represented by Universities South Africa (USAf; <https://usaf.ac.za>), of which all Vice-Chancellors of South Africa's public universities are members. Hegemonic masculinity studies have been widely used in gender inequality research within the South African context and should continue to be explored as it has the potential to offer "new scope for optimistic assessments of gender power" (Morrell et al., 2013).

National government should be represented by the Department of Mineral Resources and Energy (DME) and the Department of Small Business Development (DSBD). The role of the DME is to regulate, transform and promote the energy sectors ensuring that all South Africans derive sustainable benefit from the country's mineral wealth. In complementary support the DSBD's purpose is to lead and coordinate an integrated approach for the promotion of entrepreneurship thereby ensuring and enabling a legislative and policy environment to support growth and sustainability.

### **What should be the mandate guiding the process?**

Women remain under-represented in all aspects of the mining sector despite existing legislation and frameworks that are intended to protect women's rights. SDG5 calls for the full participation of women and equal leadership opportunities at all levels of political and economic decision-making for women (Sen, 2014). The Constitution of South Africa states that everyone should be treated equally before the law and has a right to equally benefit from the law (The Department of Justice and Constitutional development, 2001). The proposed Mining Charter 3 stipulates that 5% of procurement spend should be allocated to women and youth (Minerals Council South Africa, 2019). Therefore, the mining industry has the potential to rectify some of the gender equity issues by creating business leadership opportunities for women. Actions taken will also positively address economic growth, private and public sector performance and income inequality.

### **What should be the priorities for consideration?**

As the findings of this research (Chapter 4) have shown, the priority points should include, but not be limited to, the following:

- The Evolving Landscape of Women in the Business of Mining (a legacy of exclusion, continuing and pervasive exclusion, towards transformation),
- Drivers and Opportunities for Change (society pressure, understanding the value that women bring to the industry and opportunities).
- Barriers and Influencing Factors (leadership gap and style, societal and corporate culture, legislation, training and mentoring, business systems). One of the key points under legislation on the agenda would be on whether quotas or targets should be implemented and, if so, what should they be?

### **What should be the timeline?**

The 17 Sustainable Development Goals (SDGs) of the 2030 Agenda were adopted in September 2015 and officially came into force in January 2016 with 2030 set as the deadline to meet them. It would therefore be appropriate to set this same deadline of 2030 for fulfilling South African mining industry objectives for gender transformation. If the Gender Inclusivity Round Table starts its work in 2025 this allows five years for the measures that will achieve transformation to be implemented.

### **How should the process of transformation of the business of mining be monitored and evaluated?**

This process should be monitored and evaluated by the Minerals Council, reporting to the Department of Mineral Resources and Energy with the engagement of an independent Monitoring and Evaluation (M&E) expert in a university, as recommended by USAf. An example of the kind of expertise required for effective M&E processes is the University of Stellenbosch Centre for Research and Evaluation, Science and Technology (CREST). This is the largest academic department in the field of impact assessment and monitoring evaluation studies in South Africa (Stellenbosch University, 2023).

## **6.5 In summary**

This chapter drew on both the literature and interview insights to develop a theoretical framework that identified the causal relationships among the challenges facing women in the

business in mining. Subsequently a collaborative approach with a multi-actor model to address these challenges was suggested: the Gender Inclusivity Round Table.

Once implemented, the Gender Inclusivity Round Table could fulfil its mandate within the proposed timeframe and a reformed mining sector could be achieved by 2030. This collaborative approach will draw on an industry-wide pool of skills and experience to reduce income inequality and increase economic growth, and with fewer labour disruptions. The results will positively impact society. Overall, these changes will mean that being female will no longer be a disadvantage; girls and women will be equally empowered and aware of the limitless possibilities if they are willing to work for them.

The final success measurement will be when there is no longer a need for Women in Mining organisations. Gender inclusivity in mining will mean that all participants in the mining industry are represented and acknowledged.

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## Appendices

### Appendix 1 Interview guidelines for semi-structured interviews

#### Interview Protocol: Guidelines for semi-structured interviews

This interview protocol outlines the broad themes for discussion in the semi-structured interviews that are being planned for this research. Interviews may contain different elements of this interview protocol and the protocol might change over time as the researcher starts exploring emergent themes. Therefore, the questions below are currently framed to point to the type of answers that the researcher is looking for, but do not necessarily reflect the actual interview protocol for any particular interview.

#### 1. Introduction of principal researcher

Farana Boodhram, PhD Student at UCT Faculty of Chemical Engineering, CEO of Avita Mining Innovations. The researchers contact details are farana@mideskglobal.com

#### 2. Overview of the project and purpose of the interview

The project involves research for a PhD degree that will primarily explore Gender Equity and Business Leadership in the South African Mining Sector. Furthermore, the researcher seeks to explore how to address these challenges in order to empower women, thereby transforming the mining industry sustainably.

#### 3. Confirmation of informed consent and recording permissions

Discuss the consent form and ensure that the participant is aware of the ethical clearance for the research and the non-disclosure agreement, and is willing to participate. Answer any questions the participant may have about the process and discuss the possibility of recording the interview.

#### 4. Introduction of interviewee

Explore the research participant's professional background, history in the company and current position.

#### 5. Discussion

##### 5.1 Explore the context and the tension between business women and mining

Questions will be framed to understand the participant's experience of businesswomen and mining within their environment. Participants will be encouraged to share their experiences relating to actual examples with respect to their broader experience in the industry, as well as their experience within their current position/department/company. Some interviews will be of an elite nature in that they will only focus on understanding the participants' experiences as leading businesswomen, as well as identifying potential issues and concerns and how the participants believe these could be resolved.

1. Has your gender ever played a role in affecting your business progress?
2. Has your experience in the industry informed or shaped your leadership?

##### 5.2 Explore enablers and limitations

This section is dedicated to understanding more specific dynamics around enablers and limitations for women in the mining industry. Questions in this section will explore the participants' understanding and experience of what they perceive as enablers and limitations within their organisation's process.

Questions will include the participants' views on enablers and limitations in the rest of the industry too.

1. Has being a female played a role in your legitimacy as a business leader in the industry?
2. What would you say are your biggest limitations as a businesswomen in the industry?

### **5.3 Explore organisational identity, purpose and opportunities**

Questions in this section will be framed in a way to understand the participant's understanding of the organisation's policies, opportunities and targets with regards to women in mining. The discussion will include open-ended questions that explore mitigating strategies that the interviewee believes need to be addressed in order to create a sustainable and viable future for the empowerment of women in the industry.

1. In your opinion, is gender a significant factor influencing business? In other words, do women and men lead differently? Please give two or three reasons explaining your view.
2. What do you think are the strengths of your institution/the mining industry in terms of supporting female leadership, and how can such strengths be augmented and enhanced?
3. Do you think that there are weaknesses in your institution/ the mining industry in terms of supporting female businesses, and how can these weaknesses be ameliorated and mitigated?
4. Do women and men have equal access to:

a) Information systems and knowledge structures such as schools, universities, companies, government, that can nurture their potential as leaders?

b) Professional networks, clubs or social groups that can facilitate and support their leadership role and work?

5. In your opinion, should women in leadership positions be more supported in their roles as leaders? If so, how?

In your opinion, what should the role of leaders be in assuring gender equity at leadership level?

### **5.4 Questions from the research participant to the researcher**

Research participants will be invited to ask questions

### **6. Confirm that the research participant is comfortable with three aspects of the research**

- i. The recording
- ii. Their desired level of anonymity
- iii. Their preferred title

### **7. Closing remarks**

Closing comments include gratitude for the research participant's involvement in the research process as well as seeking permission to return to the researcher for clarification or for a follow-up interview.

## Appendix 2 Ethics Clearance

Application for Approval of Ethics in Research (EiR) Projects  
Faculty of Engineering and the Built Environment, University of Cape Town

### ETHICS APPLICATION FORM

**Please Note:**

Any person planning to undertake research in the Faculty of Engineering and the Built Environment (EBE) at the University of Cape Town is required to complete this form **before** collecting or analysing data. The objective of submitting this application *prior* to embarking on research is to ensure that the highest ethical standards in research, conducted under the auspices of the EBE Faculty, are met. Please ensure that you have read, and understood the **EBE Ethics in Research Handbook** (available from the UCT EBE, Research Ethics website) prior to completing this application form: <http://www.ebe.uct.ac.za/ebe/research/ethics/>

APPLICANT'S DETAILS		
Name of principal researcher, student or external applicant		FARANA BOODHRAM
Department		CHEMICAL ENGINEERING
Preferred email address of applicant:		FARANA@AVITA.CO.ZA
If Student	Your Degree: e.g., MSc, PhD, etc.	PhD
	Credit Value of Research: e.g., 60/120/180/360 etc.	360
	Name of Supervisor (if supervised):	JOCHEN PETERSEN, MARTIN HALL, JENNIFER BROADHURST
If this is a research contract, indicate the source of funding/sponsorship		N/A
Project Title		Towards the empowering of women in the mining business in South Africa in the context of the United Nations Sustainable Development Goals

**I hereby undertake to carry out my research in such a way that:**

- there is no apparent legal objection to the nature or the method of research; and
- the research will not compromise staff or students or the other responsibilities of the University;
- the stated objective will be achieved, and the findings will have a high degree of validity;
- limitations and alternative interpretations will be considered;
- the findings could be subject to peer review and publicly available; and
- I will comply with the conventions of copyright and avoid any practice that would constitute plagiarism.

APPLICATION BY	Full name	Signature	Date
<b>Principal Researcher/ Student/External applicant</b>	FARANA BOODHRAM	Signed by candidate	05/06/2022
SUPPORTED BY	Full name	Signature	Date
<b>Supervisor (where applicable)</b>	JOCHEN PETERSEN	Signed by candidate	6 Jun 2022

APPROVED BY	Full name	Signature	Date
<b>HOD (or delegated nominee)</b> Final authority for all applicants who have answered NO to all questions in Section 1; and for all Undergraduate research (Including Honours).			
<b>Chair: Faculty EIR Committee</b> For applicants other than undergraduate students who have answered YES to any of the questions in Section 1.	Prof. H. von Blottnitz	Signed by candidate	5 July 2022

## Appendix 3 Consent form



### CONSENT FORM

**Project Title:** Empowering women in the mining business in South Africa in the context of the United Nations sustainable development goals

**Candidates name:** Farana Boodhram

**PhD in Chemical Engineering  
Minerals to Metals, University of Cape Town**

I .....confirm the following:

1.	I have read the information sheet provided by the researcher and thus understand the projects aims and objectives.	
2.	I am participating in this project voluntarily and understand that I may withdraw from the interview at any time if I so do wish.	
3.	I understand that in any report on the results of this research my identity will remain anonymous.	
4.	I have been asked permission to record this interview and have given my permission.	
5.	I understand that this data is accessible to other researchers only if they honour the confidentiality agreement.	

### Participant

.....  
Signature of participant

.....  
Date

.....  
Name of participant

.....  
Organisation of participant

### Researcher:

.....  
Signature  
Name: Farana Boodhram

.....  
Date

## Appendix 4 Interviewee information

<u>Interviewee</u>	<u>Gender</u>	<u>Position / Company</u>
1	Female	Currently Director and Founder of two international women in Mining organisations
2	Male	Retired CEO of two mining houses, Chairperson, Executive Director, Chairperson of Richards Bay Coal Terminal.
3	Male	CEO and five times a board member of mining houses, founder of an events company in the mining industry, Chairperson of SBI (Small Business Institute).
4	Female	Owner of a company providing services and products to the mining industry since 2012.
5	Male	Interim chairperson, Vice President, MD and CEO of two Mining companies.
6	Female	Global CEO, CFO, Chief of Staff of mining houses, listed in the Top100 Global Women in Mining 2018 three times acknowledged as “South Africa Mining Rainmaker”.
7	Male	CEO of a company that provides industry-focused assurance, advisory and tax services to the mining sector in Africa
8	Female	Senior official at Minerals Council South Africa, chairperson of the Mining Lekgotla, Head of International Relations.
9	Male	General Secretary of a national union, Branch Chairperson of a mine, Deputy Chairperson on the Board in the banking sector.
10	Female	Drilling, exploration owner, president and chair of her country’s WIM and IWIM chapters and president of an women in mining association for Africa
11	Female	MD and owner of company contracting to the mines for the last 17 years.
12	Male	Four times CEO of South African and global mining houses, Vice President and Non-Executive Director of two mining houses.
13	Female	CEO WIMBIZ (Women in Mining Business) South Africa, activist, founder of Women Matter.
14	Female	Senior executive and founder of Women in mining business SA, owner-director of a mining resource company, non-

		Executive Director of a mining company, listed in the Top100 Global women in mining.
15	Female	Female MD and owner of a diamond core drilling exploration company, ex-chairperson of WIMSA (Women in Mining South Africa), patron and board member of WIMSA and WIMBIZ SA, listed in the Top100 Global Women in mining 2018.
16	Male	Three times Director, Chairperson of global listed companies (two in mining), CEO of listed insurance company, member of global executive committee.
17	Male	CEO/ Non-Executive/COO Director/Chairperson, member of the Group Management Committee of numerous mining houses.
18	Male	General Manager of two multinational mining houses with 40 years' experience in mining.
19	Male	Executive head, ex-CEO, founder, President of the Minerals Council of South Africa, founder of one of the larger coal mines in South Africa and Business Leader of the Year 2022.
20	Female	Youngest Managing Director of an internationally listed precious metals mine, board member of a medical aid, a pension fund, bank and an accountancy college.
21	Female	CEO and board member of large Platinum Mining company.
22	Female	Senior Advisor : Gender Equality & Sustainable Development, Diversity & Inclusion.
23	Male	Four times CEO, Executive Director, Vice President of the Minerals Council South Africa.
24	Female	Principal Geoscientist, geological consultant, Ex chairwoman WIMSA.
25	Female	Ex-chairperson WIMSA, Head of Business improvement of a multinational mining house.
26	Female	former female cabinet member in SA; now senior leader in the women portfolio of an international organisation
27	Female	Managing Director of a company that develops and produces materials that assist mining companies to monitor laboratory performance, chairperson of a women in mining organisation in South Africa, a chemist by profession.

28	Female	Strategic Advisor on areas surrounding gender, natural resources, renewable energy, Managing Director Women in Mining UK, social impact investment.
29	Female	CEO and founder of an engineering and mining company, director of WIMBIZ, listed in the Top100 Global women in mining.
30	Female	Mining executive, Woman in Mining task team leader, previous chairperson of Women in Mining, Vice President of Strategy and business development.
31	Female	Vice President of an association for Women in Mining in Africa, President of Women in Mining in her country, Executive Director of a company in mining.
32	Male	President and CEO of an International Council on Mining and Metals, lead climate & ESG analyst, Co-head of Europe, Middle East and Africa, and Corporate Advisory and consulting business experience.

## **Appendix 5 Procedure followed during semi-structured interviews**

This interview protocol outlines the broad themes that were discussed in the semi-structured interviews planned for this research. Interviews contained different elements of this interview protocol and the protocol varied over time as I started exploring emergent themes. Therefore, the questions below are currently framed to point to the type of answers that I was looking for, but do not necessarily reflect the actual interview protocol for any particular interview.

### **1. Introduction of principal researcher**

Farana Boodhram, PhD Student at UCT Faculty of Chemical Engineering, CEO of Avita Mining Innovations. The researchers contact details are farana@mideskglobal.com

### **2. Overview of the project and purpose of the interview**

The project involved research for a PhD degree that explored Gender Equity and Business Leadership in the South African Mining Sector. Furthermore, I explored the current barriers and challenges experienced by women leaders in business in the mining industry and on the basis of this I explored ways to achieve gender equity in South Africa's mining industry.

### **3. Confirmation of informed consent and recording permissions**

The consent forms were discussed and the participants were aware of the ethical clearance for the research and the non-disclosure agreement, and were willing to participate. I answered all questions the participant had about the process and requested to record the interview.

### **4. Introduction of interviewee**

I explored the research participant's professional background, history in the company and current position.

### **5. Discussion**

#### **5.1 Explored the context and the tension between business women and mining**

Questions were framed to understand the participant's experience of businesswomen and mining within their environment. Participants were encouraged to share their experiences relating to actual examples with respect to their broader experience in the industry, as well as their experience within their current position/department/company. Some interviews were of an elite nature in that they focussed on understanding the participants' experiences as leading businesswomen, as well as identified potential issues and concerns and how the participants believed these could be resolved.

3. Has your gender ever played a role in affecting your business progress?
4. Has your experience in the industry informed or shaped your leadership?

#### **5.2 Explored enablers and limitations**

This section was dedicated to understanding more specific dynamics around enablers and limitations for women in the mining industry. Questions in this section explored the participants' understanding and experience of what they perceive as enablers and limitations within their organisation's process. Questions included the participants' views on enablers and limitations in the rest of the industry too.

3. Has being a female played a role in your legitimacy as a business leader in the industry?

4. What would you say are your biggest limitations as a businesswomen in the industry?

### **5.3 Explore organisational identity, purpose and opportunities**

Questions in this section were framed in a way to understand the participant's understanding of the organisation's policies, opportunities and targets with regards to women in mining. The discussion included open-ended questions that explored mitigating strategies that the interviewee believed needed to be addressed in order to create a sustainable and viable future for the empowerment of women in the industry.

5. In your opinion, is gender a significant factor influencing business? In other words, do women and men lead differently? Please give two or three reasons explaining your view.
6. What do you think are the strengths of your institution/the mining industry in terms of supporting female leadership, and how can such strengths be augmented and enhanced?
7. Do you think that there are weaknesses in your institution/ the mining industry in terms of supporting female businesses, and how can these weaknesses be ameliorated and mitigated?
8. Do women and men have equal access to:

a) Information systems and knowledge structures such as schools, universities, companies, government, that can nurture their potential as leaders?

b) Professional networks, clubs or social groups that can facilitate and support their leadership role and work?

5. In your opinion, should women in leadership positions be more supported in their roles as leaders? If so, how?

In your opinion, what should the role of leaders be in assuring gender equity at leadership level?

### **5.4 Questions from the research participant to the researcher**

Research participants were invited to ask questions

### **6. I confirmed that the research participants were comfortable with the following three aspects of the research**

- iv. The recording
- v. Their desired level of anonymity
- vi. Their preferred title

### **7. Closing remarks**

My closing comments included gratitude for the research participant's involvement in the research process as well as seeking permission to return to the researcher for clarification or for a follow-up interview if necessary.

## Appendix 6 Coding

### NVivo Codes

#### Nodes

Name	Files	References
<b>Business Dynamic</b>	<b>28</b>	<b>178</b>
Current situation	18	53
black leaders	1	1
female leaders	10	20
women owned businesses	10	18
Historical success	11	50
networking	9	21
safety	6	7
training and mentoring	19	45
<b>Challenges</b>	<b>28</b>	<b>127</b>
Access to finance	1	1
Advocacy	1	1
Challenges	28	123
barriers	12	28
Family responsibility	1	1
Minority	1	1
<b>Context</b>	<b>31</b>	<b>345</b>
gender diversity	31	314
current situation	26	74
history	18	27
progress	18	50
Strategy for change	24	123
why diversity	16	34
history of mining	9	31
apartheid	8	16
<b>Cultures</b>	<b>24</b>	<b>68</b>
Accountability to society	4	5
Culture	18	49
Economy	3	6
economies	3	5
Gender bias	5	8
<b>Female owned business dynamics</b>	<b>28</b>	<b>262</b>

Name	Files	References
female owned business	28	262
challenges	20	92
mining industry challenges	14	44
opportunities	23	107
start ups	7	16
<b>Legislation, policies &amp; targets</b>	<b>29</b>	<b>127</b>
black Economic Empowerment	2	3
advantages	3	3
disadvantages	3	9
Government	24	67
legislation	15	38
SDGs	2	4
<b>Other</b>	<b>8</b>	<b>11</b>
<b>Persona</b>	<b>31</b>	<b>209</b>
authenticity	6	8
Feminine attributes	21	68
negative	9	24
positive	17	40
leadership	25	92
men	6	14
women	17	46
assertiveness	11	17
Unconscious bias, stereotypes	15	41

Nodes\\Thematic framework

Name	Description	Files	References
<b>Business Dynamic</b>		<b>29</b>	<b>222</b>
Current situation		19	56
black leaders		2	6
female leaders		12	17
women owned businesses		10	18
<b>female owned business</b>		<b>21</b>	<b>125</b>
impediment		17	67
mining industry challenges		5	13

Name	Description	Files	References
opportunities		15	31
start ups		6	11
networking		6	17
safety		4	5
training and mentoring		11	17
<b>Context</b>		<b>27</b>	<b>163</b>
gender diversity		26	132
current situation		24	60
history		12	19
Persona		0	0
progress		13	28
why diversity		12	20
history of mining		10	31
apartheid		7	15
<b>Cultures</b>		21	56
Culture		15	42
Economy		3	5
economies		3	5
Gender bias		5	7
social media		2	2
<b>Impediments</b>		26	115
Challenges		26	115
barriers		12	28
<b>Legislation-policies</b>		26	88
black Economic Empowerment		2	3
advantages		3	3
disadvantages		4	10
Government		24	61
legislation		8	20
SDGs		2	4

## Appendix 7 The Collective Leadership Voice of South African Mining

The real strength of Nvivo is multi-dimensional coding and this allows deeper levels of interpretation. The foundation for the interpretation of the interview data collected for this research projects has been provided by the core themes derived following the principles of Grounded Theory and discussed in detail in Chapter 4. In this Appendix, the body of primary evidence has been reassembled to support the key points made in Chapter 5; specifically, the five interpretative arguments offered in section 5.2 of Chapter 5 - Systematic Exclusion, Cultural Exclusion, Discrimination, Diversification and Inclusion. This provides for the equivalent of a collective chorus – the deep and varied expertise of the 32 senior figures in the South African mining industry who contributed generously to this research project.

### NVIVO - Collective Voice- Grounded Theory

#### Pervasive Problems

##### Systematic Exclusion

**R6:** “It's not just the psychological safety, but physically. I always say you cannot get psychological safety if you don't physically enable a woman underground, right?”

**R25:** “I think traditionally the mining industry has not been a particularly safe place to work for women... You still have to have a buddy system and work with another female.”

**R24:** “I suppose, being a female has also led to more vulnerable situations within exploration field camps and things, but you know, yeah, I've dealt with it.”

**R23:** “We need to be cognisant that the underground environment is an environment where there are very significant risks, that if they're not well understood the safety and wellbeing of people can be compromised.”

**R3:** “Much more so than almost anywhere else in the world, two major sectors of our mining are still very physical - narrow rig mining, platinum and gold mining. I can't even do it. You need to be a strong person. That doesn't mean women can't be, but naturally women don't get drawn to that.”

**R19:** “And sometimes there has been the excuse that the nature of the work is one that is very challenging for the women, because it requires strength in some instances.”

**R10:** “There is not like some service that you subscribe to that will be giving you opportunities... if I don't keep going on site all the time to look out for opportunities, it doesn't come to me.”

**R29:** “The reason women are not getting full support is because we just focusing on business, and we don't want to learn about the politics. Business and politics goes hand in hand.”

**R1:** “I would also say that when I was setting up Women in Mining in 2006, way before the term Women in Mining, diversity and inclusion... people were laughing me out of the room and that included women, not just men.”

**R27:** “Yeah, I think there was definitely phases that I needed to work through where it was difficult for people to accept, because whilst you had leadership supporting you, you still needed to work and be successful in a broader system. And still today, I feel that sometimes you're not heard.”

**R18:** “Oh, we've got our 10%. Brilliant. That's the ceiling. We don't have to do anymore, but you have to have the 10% for those companies that are not progressive.”

**R18:** “Yeah, I think policy can't hurt.”

**R19:** “And I guess until pushed by legislation, by whatever the natural thing for people is that change, it doesn't happen unless people are being almost prodded to that. There wouldn't be opportunities for a lot of black people in many industries, in all industries if it wasn't for legislation. Let's just be honest.”

**R2:** “you almost need to start off with your policies and how you promote different groups.”

**R20:** “I think it's definitely government enforced”

**R20:** “Oh yeah. It's always been legislated, but you know companies. They work around it, yeah.”

**R25:** “I mean any of the leadership development programs that I'll go on there will still be skewed towards more males than females.”

**R14:** “There is a law, there is the act that is a charter. There's a social and labour plan. We have tools. we have to go to those who put together those pieces of legislation. We start there because we realize when we start here, because the DMRE can't just put together policies and acts and everything, and they don't intervene because they're the worst when it comes to empowerment of women, even their women are complaining. So if we have to go to a portfolio committee and start it there, let's do that.”

**R14:** “You don't even have to go there. Let's challenge it where it's done. If we don't challenge- the charter is so silent.”

**R14:** “There's no measurements who measures the policy, who measures that the act is being implemented, who measures the social measurement, who measures the charter? There's no measurements. There's an office in the DMR, I think Siphon Nkosi is there now. Now there's an office in the presidency. We can go there and speak to the people -there's a woman something something I don't know what they do, but they're there.”

**R15:** “It always starts with policies being driven from the top that guide to the lowest operational level Policy always shapes how we behave - case in point the wearing of masks! Without the policy ppl felt they had the choice of compliance or not!”

**R17:** “The minute you put hard limits on and it's black and white and no correspondence will be entered into, you run the risk of creating second class citizens where, okay, we're just doing this for the numbers and you give them any excuse not to take accountability for the change they need to lead.”

**R30:** “I think we are being deliberate about the targets. We are being deliberate about enforcing the 5%. So, I think it's about being deliberate and tracking and holding yourself to account.”

**R17:** “So, it's in my view, it's government legislation, which can be quite ineffective at times. And you take sometimes the negative consequences are worse”

**R21:** “If governments make policy and set targets, it's got such a huge impact.”

**R21:** “I honestly believe that we need to set targets.”

**R21:** “I spent probably best part of three hours looking through all of those targets that we need to achieve in the mining charter. And we continuously map that.”

**R22:** “And when you talk about litigation, it's like, no, do we really have to litigate for gender equality or we can still mediate and talk about it.”

**R22:** “And nowhere do those policies speak about women empowerment. So, where are we going?”

**R22:** “Only in 2021 do we get Dr. Taylor to do a review of the NDP and only now are we now starting to write in women under what I will call gender and development. And we should have done this as early as 1995, because when we came back from Beijing, the world was already in gender and development. So, we have lost over 20 years as women in the democracy where we are not a priority, but we are hiding under gender equality.”

**R23:** “What government must do is they must create the right environment instead of trying to control and regulate. There are already far too many policies that are stifling and so, you

really have to create the want to increase the women in business and in mining, because it's a good thing, not because it's legislated.”

**R23:** “I personally don't think government can do anything constructive at the moment, but let's assume we had a competent and focused government. Of course, they should be making it clear that this is a policy in the national interest, which it is.”

**R23:** “we're trying to reverse a legacy issue, but they don't do it. They play at lip-servicing.”

**R24:** “on one hand I think quotas are good, because it opens the door for females into any industry. On the other hand, are companies just ticking the boxes and not really getting the best people for the best jobs?”

**R24:** “But until then, I suppose, we have to rely on legislation and then we get back to the quota system, which I think it has its place, because it does open doors for female run companies. But do mining companies actually pay any attention to legislation”

**R25:** “I think because there's quotas and there's targets we're trying to achieve in terms of women in mining, especially in the big mining houses that now female candidates get preference in HR interviews.”

**R25:** “OK, but now, because they're sort of forced to look at them we're getting more and more really good women into our company.”

**R26:** “You have to create an ecosystem, which has got measures to make whatever you put in front of them achievable. And if it's not achieved, you have sanctions. And, of course, I always was very quick to say, I'm going to take away your license.”

**R26:** “you also need policy makers who are committed to economic empowerment of all the people who have been excluded, women, black people, youth, etcetera, because those are your champions. If you are a Minister, even if you don't have all the legislation in place, your disposition towards an issue creates an environment in the industry where people know about your expectations. But of course, it helps when then, you also have legislations behind your back pocket, so that you can pull it when you need to.”

**R26:** “Well, I mean, you need parliament, amongst others, to hold the Minister and the private sector accountable. People that are responsible for and enforcing implementation of these imperfect legislations that we have are unfortunately, right now, our only refuge.”

**R26:** “And ultimately, policy is necessary”

**R26:** “We have our back against the wall. It's always going to depend on who is there in the ministry, who is there in the higher office, who can demand these changes and make sure that there is compliance. And I don't know if—I don't think we have those people. So, it's just as simple as all that, until such time that the politics of the country overall, mining is very much part of what is happening in the country. The whole politics of the country have to change. I don't think that it'll make a difference if we pick on little pieces of mining, because all these pieces depend on what happens overall.”

**R26:** “Or maybe you go to the government and say, “Hey guys, look, you can really cut down on government spending and this, this, and this if you incentivise the mining companies to look at women-owned businesses and not only that, but to maybe sponsor a group of women or a cohort of women to go and do a programme at some government institute, like a centre for local business development or something like that, incentivising women. And then you have to prove that your tendering process has been made fair and can allow women-owned business to enter.” So, you have different avenues to do it, either from the money, from the actual operators or from the policy, from the government, from the legislation.”

**R3:** “So, I think the quota approach has got a real specific value as an affirmative action tool.”

**R3:** “we are quite a compliant industry. So, if you hit us with a legal requirement, we will fight. We will hate you. We will tell you it's a stupid idea and then we will comply anyway. Because ultimately, our license to operate is a real license. We can lose our mining right. And

so, if I was a politician, I would say, these guys will shout and scream and they'll call me names. And so, if I was a politician, I would unashamedly say this is an industry that you can regulate into compliance.”

**R3:** “compliance is our DNA, you know?”

**R3:** “I mean, if we are at 14% and we think 25% is the next stop, the mining industry will comply.”

**R3:** “if you don't comply, you'll kill somebody. If you don't comply, you lose your license”

**R3:** “You make rules and policy, you enforce it and you change the culture.”

**R32:** “I would just say, okay, so globally, the participation of women in the mining workforce is 14%, right? Yes. And what if I told you there's one company that's at 34% and they also happen to be the only company that has set a target of gender parity by 2025. And you're telling me quotas don't work and targets don't work? Please.”

**R7:** “Whereas the mining charter talks about local, I think it can do better to talk a little bit more about specific targets on female run businesses. And the reason I say it, because although you and I know this is the right thing, putting it down as a firmer requirement is a catalyst. I think that's a good starting point”

**R7:** “Whereas the mining charter talks about local, I think it can do better to talk a little bit more about specific targets on female run businesses. And the reason I say it, because although you and I know this is the right thing, putting it down as a firmer requirement is a catalyst. I think that's a good starting point”

**R7:** “In business' view, government has unrealistic expectations and provides no certainty from a policy perspective to enable them to invest with confidence over the long term”

**R7:** “the dynamics of industry are also slightly differently and to compensate for that, that's why you need an overweight obligation being imposed by something like the state or the regulator through enabling legislation or regulations that compell the industry to give great opportunities to women.”

**R8:** “Their approach on empowerment is tick box. So, if I don't have something, which says I must give 40% procurement to women or 30%, you know, or if legislation says I must have 12% women, I strive for 12% and nothing beyond that.”

**R8:** “If you don't, you know, have legislation backing up a policy, then government needs to put that in place.”

**R8:** “That’s why you need now the legislation and policies, so that they are required to. And one has seen a lot of that, you know, that people actually never have the goodwill, if I can call it that, to do things.”

**R9:** “at the level of authority from a regulatory point of view, if you take DMR for example, the message must come up very strong. You don't even have to amend any piece of legislation, but if that message can be driven right from the ministerial level to say, “Guys, you've got to change”, you know.”

**R9:** “So, I think with the support of piece of legislation or regulation, that can be very, very helpful. And enforcement, yeah”

**R1:** “I don't really care what the situation was. If it's just because they said, “Oh, we want to have that target to look good”, I don't care. Just by doing that change, eventually by having more women, we'll bring more women”

**R14:** “they're not interested because no one's forcing them to.”

**R2:** “There’s not enough women in business and I don’t think we encourage them enough.”

**R20:** “So, I think it's coming and we’re seeing it, not because we’re making a concerted effort at this point in time, specifically from a women in business perspective, but we are seeing the women coming on board.”

**R21:** “The other thing that, oh gosh, we are also frightfully slow. Onboarding is just, I think, it is shocking. And if you then look at small business and their capability to deal with some

of our draconian processes, they just do not have the capability or the capacity either, through resources or money or time, to fulfill all of those requirements.”

**R21:** “Yeah. Farana, I must tell you, I mean, I can just see on how many of our systems are failing us in these processes. Because in the end of the day, as a CEO, you end up being so far from some of the nuts and bolts of what's happening in those processes to make these things happen. And sometimes, you stand amazed on how it just doesn't filter through.”

**R25:** “it's not like there's huge incentives to hire women if you're in business, they're saying 5% has to go to woman. So I think that number needs to be higher in the mining charter in terms of women owned businesses.”

**R29:** “I don't have all the necessary supports from anyone like governments etc. Because even the policies are not really helping women in business.”

## Cultural Exclusion

**R3:** “So, I would not completely throw out the baby with the bath water. So, I think the tools that we've used have taken us from a very, very low level to I think the mining industry claims 14%”

**R3:** “And part of that is the pervasive culture. So, a male dominated, very aggressive, very harsh, very like, it's not woman friendly at all and it's changing, but I mean, it's changing from the disastrously negative to less negative... but it's a damn low base and very, very, very, very slowly.”

**R7:** “And to be fair to the mining industry, I think it has come a long way. On the labour side it does deserve some credit. Uh, even though, you know, there are those who will still criticize it for the slow pace of transformation.”

**R25:** “So I think it's changing slowly I don't think it is necessarily enough that exists together.”

**R9:** “The environment is still very conservative.”

**R3:** “I think systemically, I think it's still a very un-woman friendly place. Everything. The culture, the habits that, you know, the change houses.”

**R10:** “Sometimes people will just feel they'll say to me, Oh, this one is for big boys.”

**R9:** “So, I think there's a lot of - they are conservative people need to change their mindset and they tend to undermine you.”

**R24:** “It was your job to get done what needed to be done and if the men were hostile or disrespectful, you just sucked it up and you did the job”

**R8:** “It's more difficult, I think, for a woman to prove that she can lead. And so, she must be exceptional for her to be recognized.”

**R27:** “It was hard, I mean I would cry in toilets sometimes I would want to crawl under the desk and hide and I think my husband always says to me always fight on fact and not on emotion... I wanted to resign a couple times because I couldn't handle it anymore I was like being bullied by senior managers.”

**R26:** “So, I had to put my foot down within my department and then in the industry. So, I would say, I would deploy my guys to work with you and these are the results that I want.”

**R14:** “They know about it before it's advertised. How is that? They know about it. And they say, Farana you remember the one was yours? So this is so and so, so you not going put your tender? It's a Cartel. So how are we going to survive? So we have to make the policy makers aware of this. They sign things to say women are going catered like this.”

**R18:** “I think the culture we have to change is possibly the perception of young women, that it is a viable option for them to come in at the senior level. I'm seeing them at the junior level.”

**R26:** “I just have to up the game, otherwise I'm going to be, you know, running in circles”

**R17:** “You deal with them as individuals, which is important and not stereotyping and that should actually happen in business as well.”

**R19:** “But if I'm going to now look at the societal norms about how my dad was raised, how my grandfather was raised he's going to say, “Who's the man in the house?” You understand? So, it's about working around those unconscious biases”

**R2:** “We just don't even notice they're there, because we have an unconscious bias against women.”

**R21:** “there's no job too small for me to do. But being female very often, that ended up being typically, work that could've historically been done by women.”

**R21:** “When we had Marikana, the event of Marikana and I was part of the Lonmin management team, a very small management team, and during that event we also lost a couple of our senior leadership and we didn't have a corporate affairs function. It was not existent in the team. And clearly, corporate affairs were pretty important at that point. And the team looked around the room and said, well, female, corporate affairs. And so, that is a typical point where, because you're female, there's an assumption that you will do certain work.”

**R22:** “if your upbringing and socialization is about women are not leaders, therefore, no matter how enabling the environment is to promote and appoint a woman, just because of that internal bias, you will never do it.”

**R22:** “The education and awareness has been done, but who is not changing? It's the individual who is holding onto what they know and what they know best and they think it's right. So, taking more of that unconscious bias and also dealing with the blind spots that all of us come with.”

**R22:** “when it comes to appointing a woman or a woman-owned entity, there's almost like we want to read all the lines in the paper. Whereas if it's a submission by a man, we will read what is important and then we move on, but where does that come from?”

**R22:** “So that we stop falling into the gap of where patriarchy is waiting to say, we told you so. Women cannot work together.”

**R27:** “I think it is important for organizations not to put women into token positions, not to be filing quotas as well but that happens and how many times do you sit in the boardroom and your HR director is always female or your marketing executive is a female. ~Why is that stigma? But your operations are usually -men which doesn't make sense to me.”

**R3:** “I think we bias it knowingly or unknowingly to somebody like us, I could sit with somebody who sounds like me, looks like me, have gone to the same school, came out of the same varsity, and I can say, yeah, he's a younger version of me. I sit with you and I don't see a younger version of me. I see a woman”

**R3:** “And then you saw 20 years ago, you know, procurement, when you said, well, I mean, you know, we must give a woman entrepreneur a space. Where's the catering, you know”

**R31:** “You know, as female leaders, automatically we take on the imposter syndrome jacket the minute we sit in powerful positions as well. Again, cultural and societal norm and unconscious bias, because if those things aren't tackled, we're not going to go anywhere.”

**R6:** “It's so easy to fall into the trap, is, I'm in a man's world. I've got to look and behave like a man to do a man's job.”

**R1:** “So, it's not specific, but it's sort of across everything that we do. We don't exclude them. We include them, maybe not as— we include them if we come across, if that makes sense, but we don't consciously exclude them either.”

**R14:** “you are there, they don't even consult you. They don't even, you just get to be told, even when you make certain comments or give advice, it's very, very rare that they take it for what it is and actually implement it.”

**R15:** “You know, in one of these mining houses who took a look at the RFQ , took a look at the company details and said ohh OK, but this is You know, a young, black female owner and she's 100%. What does she know about drilling? Because the mindset is that in drilling this is not the typical type of person you're going to find doing drilling”

**R15:** “And I feel some of it makes you feel as if you are being restricted, and I think that's why in the beginning of the year I felt like I need to leave the industry”

**R15:** “most of my employees are male. When you give the instruction and you tell them exactly what it is you want and how you want it, they have a way of just not doing what you tell them to do and then when my husband comes and says, Ohh I heard this and this was supposed to be done then suddenly we react very differently. Ohh and yeah no and what we thought is that we were gonna do it like this. So the reaction, you know shows me that if it was possible, why was it not possible? Because I said it. But why was it possible? Because my husband says it.”

**R15:** “The operational levels they still wanna deal with the people they were used to dealing with. And so if there's lack of support, if there's nobody who's steps in and says, I'm here to check, create it as part of your KPI that I wanna see the success of this company on your operation”

**R20:** “I think firstly, giving the women exposure, because any mining industry from a safety perspective, we look at the experience of the company's life. So, when women are in the industry and they're not given the opportunity, they can't produce that experience and automatically they're already at a disadvantage.”

**R20:** “So, that’s also one of the hindrances that we are seeing, where there’s not a lot of female-led organisations right now that we can actually deal with.”

**R20:** “I do see that lacking right now, because there is no infrastructure to support females. There was many years ago, but I think it’s just gone through the cracks and nobody's really resuscitating that aspect. So, I think as an industry, we should try and make a concerted effort to actually rejuvenate that. And like I've said, we have fallen behind on that, because we were looking mainly at the workforce and we think we've done a lot on the workforce and now we can transition to the next step.”

**R21:** “And then when you do have contracts or you do have the work that's suitable for doorstep communities, you just don't have the skills available to allocate that work to women or youth. I think that's probably, from where I'm sitting, the biggest challenge.”

**R21:** “And let me tell you, the frustration. Like, you think as a CEO, sometimes you think you've given an instruction or you've asked for something to happen, it will happen.”

**R23:** “Of course, there's been women there for a long time, but generally they don't step out and provide services that I'm referring to. They might provide or establish companies that provide financial services or consulting services, but I think our challenge lies in the rock breaking function, the underground mining function. That's where we need to develop a lot more women, so that the population of experienced and competent women is able to compete with their male counterpart.”

**R24:** “I suppose you just have to show people that you legitimately are in the position that you are in, that you've done the work, you've put in the hard stakes and you’ve got there, because of your work and because— you actually just have to prove to them all the time that you're in the position that you're in, because you deserve it.”

**R25:** “There's a huge amount of challenges, you know, first not being taken seriously, you know and I think you almost have to prove your stripes even 10 times over if you have a woman led business.”

**R29:** “Because I’m a business owner but as a women my decision making is limited because when you sit in a boardroom you only find males and sometimes they don’t listen to your

voice so you end up doing what they say even though you can come up with better solutions to finish the project so those are my limitations.”

**R29:** “I think they have a pool of supportive friends or funders or wherever they can get the money and as a woman we are limited in getting access to funds and they have collateral.”

**R29:** “I think may be because there are not many of us in the structural engineering space as women so sometimes they tend to redirect you to other service offerings to say why don’t you try supply us with this and that because you see this industry is tough instead of them saying okay let us help you to navigate through the system.”

**R29:** “I think yeah we do not get to know what is really happening on the inside of the mine- we only get to know about the softer side of things.”

**R30:** “But also, if you look at women, you know, they don't have a track record, unlike a male business. So also, track record speaks volumes. I'm also not going to give a mining contract to someone with no track record. I mean, I'm putting the business at risk.”

## Discrimination

**R20:** “I swear, including myself I never thought I'd get to this position. It was just so difficult. Seventeen years down the line I get what I want.”

**R23:** “I don't think that that's a situation we should allow to continue and we should make a concerted effort to normalise the situation, but I would just say that there are a lot more women-led suppliers and service companies than there were before.”

**R23:** “I think in a way, we must be careful we don't become paternalistic about women, because all we will do is, you send the wrong message. You send a message that it’s unfair or it’s a playing field that's not level and that will ultimately be to the detriment of the women. They must be treated fairly and of course, sensitively and supported. But I think if you let the pendulum swing the other way, it'll swing back and it'll be to the detriment of women.”

**R29:** “I'm not treated equally. I think every day I have to prove that I am. You know I can deliver like any other male companies”

**R11:** “Remember, they used to have these board meetings or they have a meeting where they invite all the contractors. And most of the time they'll only invite the men or they'll say, “Oh, I forgot to tell you about it.”

**R8:** “They were not particularly supportive. The one was even patriarchal.”

**R3:** “Surely society would want women to have maternity benefits. But when you have it in a society which is unequal, then actually it’s discriminatory or it contributes to potential discrimination.”

**R10:** “Because I have my challenges really, I have my limitations. As a female as a mother. I have my limitations. I'm not able to attend all the social events as well.”

**R3:** “Why must I play golf in order to be able to be promoted? It can't be right. Where's the HR policy? ...It's not written, but it's informal, you know.”

**R27:** “I have more of a public profile now and now people are like thinking it is so easy for you because you don’t have kids, oh you don’t have to worry because you don’t have kids.”

**R9:** “I don't think that they've got equal access to, especially in the mining space. You have to search for it, you have to hunt for it, you have to dig for it”

**R10:** “You will find that dominantly service providers in the mining space are male. In terms of ownership they are male..

**R10:** “I have to supply the things to other guys who hear about it

**R15:** “We don't know even what business is there available for us. We don't know when tenders come out.”

**R11:** “But they won't discuss the problem or they will make a decision and they won't inform you of what decisions they have made or they won't include you in the discussion about the problem.”

**R29:** “If I'm giving a service and I am the best, why am I not given that opportunity everywhere?”

**R14:** “So for me, it's quite a few initiatives that I was involved in, developed, presented to mining companies that they did not take. I mean, even beneficiation- it did not go far.”

**R6:** “A lot of people used that to their advantage to say, ‘Well, you don't belong here and you're just helping Anglo American meet their quotas.’ I think that kind of questioned the legitimacy.”

**R25:** “You have to almost prove yourself where if a guy has done four years of field training, that's enough. But for a girl, you have to do like six to seven years to really show that you've really know what you're talking about”

**R20:** “For example..., you've got to first demonstrate that you're technically competent first, before you even sell your idea.”

**R27:** “My competency is constantly in question”.

**R29:** “...they tend to redirect you to other service offerings to say why don't you try supply us with this and that because you see this industry is tough.”

**R21:** “A male counterpart will either be heard firstly or very often, I find their behaviour might be just robust and rude, and that would be acceptable. When we become a little bit rude, then it's typical female kind of thing.”

**R21:** “Well, for starters, definitely, you had to do more to stand out.”

**R24:** “I do think as a woman you are held back...And I think that the most common one for me was to be provided with the leadership position within a team and then halfway through, for it to be yanked away, you know.”

**R20:** “I'm still about the only female in the boardroom or in the meeting room. ...So, you've got to deal with these gentlemen or individuals who are, I take it, intimidated by women, especially in the mining industry. They struggle to understand how a mining fraternity can have a woman at the helm.”

**R26:** “They would start a meeting with the thinking that we are either disarming me by talking about how complicated this industry is and how they know that I don't know a lot about this ...And I would just quickly say, I have a job to do here, and I want results. I don't know every step what needs to be done, but I know the results that I want...You are the experts in the industry. You have to figure it out and I'll bring my team from the department to work with you.”

**R14:** “We spoke first to BEE companies and they all promised this and promised that, and everybody was, I mean we saw a company that was listing at the JSE- a black company and we went there and they promised a lot, only to find out that they were fronting.”

**R14:** “I have lost money, maybe anybody who's tried to stick around too long has lost money. And really, and truly, really don't invite us. Tell us that this sector is close for women. We will understand that, but don't be calling us under a pretense that you are empowering us when you actually not.”

**R22:** “So I think for me the core is social behavior and social beliefs and, more and more work that we need to be doing when we speak about gender equality shouldn't be based on what the law is saying but we should also acknowledge what culture, religion, and traditions say, and then, juxtaposing with what is allowed within the limits of the law. Because what you then do is you allow people to say the things that they do, their ways of living, and then from that perspective, you then help them to unlearn ways of living that will end them in jail, in anyway.”

**R26:** “So, I had to put my foot down within my department and then in the industry. So, I would say, I would deploy my guys to work with you and these are the results that I want.”

**R17:** “There's no doubt in the world that in being in the mining industry, it did help shape attitudes and attitudes that not consciously, but unconsciously probably weren't helping women”

**R17:** “You just got to continue chipping away during unconscious bias. And that's hard, because as you say, you're putting aside, in my case, 64 years of learning and some of it intuitively. I think I'm pretty open and flexible, but you still have those biases you have to be conscious of.”

**R22:** “It comes from the unconscious bias that I'm thinking this woman might not know what they're talking about. Let me just make sure that all the boxes are ticked and all of the boxes are ticked right. And then you ask yourself, so when will we get to a point where we trust a woman-owned entity or a woman, for example?”

**R24:** “So, if you're in a dominant male organisation, you're going to keep on surrounding yourself by men and you're not going to grow the base of women. And if you don't have enough women supporting other women, how are you going to grow female leaders? That, I think, is the biggest weakness. The fact that it is still male-dominated and I don't know how to fix that, because we've been trying for 30 years.”

**R25:** “And so I think as a woman, you have to work harder at it If you're a woman. You have to almost prove yourself where, where if a guy has done four years of field training, that's enough. But for a girl, you have to do like 6 to 7 years to really show that you've really know what you're talking about. You know your stuff.”

**R27:** “leaders have an obligation to not create the biases themselves and if we continue to perpetuate historic biases or historic roles or whatever it might be that has been specifically gender focused it makes the difference in itself”

**R1:** “Unless men respect that women can do the job as well as they can, they will never change. They won't get the opportunity.”

**R14:** “they will tell you that no, this is open to host communities because we want to empower them. We want to leave a legacy as Anglo, as whoever. I found that very disingenuous, because they're saying now they're focusing on the mine they're giving the mine host communities those projects. And when you look at the skills, go to the local economic development plan, as the municipality, you will find the type of skills of the service providers that are in the host communities- cleaners, caterers, mechanics, and gardeners. So how are they gonna benefit from these contracts?”

**R14:** “ we're saying all that we want is to do business, make money, support our communities, and also be businesswomen who are gonna contribute towards the sustainable development of this country, but we not given that opportunity?”

**R14:** “Work with them and they don't even give me work. They don't consult me. It's worse. It's just that I haven't dealt with them. But the stories that I hear is that they pay no respect and they have no regard for you.”

**R14:** “So we are sitting at the mining companies with unscrupulous people.”

**R15:** “they say the mine is literally right here, but we are not getting access. We don't know even what business is there available for us. We don't know when tenders come out. the way it's always been done is that if I've use the service provider before when I have a requirement or request, I'm gonna send it to the same people I've used, I'm gonna send it to the same database and then my choice is limited to those people on the database.”

**R18:** “So, I had a team of people outside, consultants to help me. And we immediately saw the difference. All the meetings that you've got to, you have a plan, you have an action. If the action's different to the plan, you've got to put an action in. It's working, but the section managers on the shafts are still not supporting it and they're not enforcing it. So, if I pull the

team away, it will eventually fail. And I've realized that. So, I've introduced the team again for this year, and if need be, I'll keep it here forever until I get the accountability from the senior leadership that I want. Those leaders who are fighting it and really objecting to it, I've tried to reason with them and then eventually I've dismissed them. And I've dismissed a lot of people.”

**R2:** “I don’t think we welcome them enough.”

**R23:** “I think again, you've got to want to promote the concept of women in business, but you’ve got to be careful not to treat them different to men related businesses, because it will backfire.”

**R26:** “And then you're going to face bigots, who are going to be stopping you every step of the way or minimizing what you do or cheating you, etcetera. And that you also have to be prepared for. Be prepared for the fight and be on the lookout.”

## Mitigating Approach:

### Diversification

**R18:** “So, access to the information, I think is totally equal, however you do it. They are looking for these companies. So, if they're there, I'm not too sure why they're not finding them.”

**R23:** “I think that clearly, the majority of participants are still men and therefore the allocation of work unfortunately, statistically, results going to them.”

**R27:** “I continue to work harder with my male colleagues and I have to show up you know bigger, better and bolder”

**R23:** “In the past it was 99% men, which is why we started with the women in mining initiative at 13%. I think within our company we are now starting to approach 15, 16. So, we are making a conscious effort to sign on and award bursaries and learning programmes to something more like the demographics of the country.”

**R32:** “There are more people in the group of 26 with the name ‘Mark’ than there are women. So, we have one woman out of 26 CEOs. This is the global mining body.”

**R26:** “Well, obviously in the first place, we have to encourage women first, so that women want it. It's not the most attractive industry...And at the same time, if you do well, it can be very fulfilling. So, you have to, sort of, project that.”

**R6:** “And then he would start off with people and he would ask us the same question every meeting, ‘Show me how you are progressing women in the organisation.’ And he would remember what we said from the last meeting, Every meeting.”

**R17:** “We'd be hiring two women for each male in those top roles... it's on the basis of that at least 50%, you're getting at least 50% in the roles. It's probably more like 60%, 60, 65%. So, it's working it out, but it's not seen to be threatening. We're reacting to natural attrition in the workplace.”

**R25:** “I think we're close to 30% women at this point in time. But of course we wanna get some more woman. So we have to always look at female candidates first.”

**R25:** “I think because there's quotas and there's targets we're trying to achieve in terms of women in mining, ...female candidates get preference in HR interviews. Because we have to because of employment equity and all that sort of stuff.”

**R3:** “I mean, HR is probably one of the departments in mining industry where we took a better representation of women”

**R21:** “ We do have our procurement programmes when we do capital allocation. There's very specific focus on women and youth. The recent energy projects that we for now host has

got community pre-carry, but there's also a minimum requirement for youth and women involvement”.

**R15:** “I think that's where organisations like Women in Mining Business are so important, because now we are saying let's create an open platform of where the opportunities are and try and make it as widely known as possible.”

**R16:** “From an HR point of view, the HR policies of companies have to be gender sensitive, they have to be proactive and deliberate in terms of providing support to women leaders and women professionals and women workers at all levels of the organization.”

**R17:** “Now, governments can regulate, but I think they've got to talk to an expectation and allow companies the opportunity to set their own target. And so, the boundaries and the limits have to be, I won't call them soft. They have to be targets, they have to be sensible, but if they abuse the intent, they probably do more damage.”

**R3:** “But we have to be deliberate. I mean, of course you can say this is a job specifically reserved for, you know, whatever employment equity. I think it's the current, sort of, terminology. You can say this is a job specifically targeting women. And I mean, that's affirmative action. I think it's inevitable.”

**R4:** “So, what I would've asked will be that I wish people will also understand to say also, with a black person it's also possible, especially the black female it's possible”

**R5:** “Laws do assist in driving change, but mobilization of people drive change.”

**R5:** “the legislation does not have teeth. So, there is not even any sanction that I would expect to come my way if I did not comply. So why must I comply? I'll just carry on as if things are normal.”

**R5:** “And of course, legislation will have to stand up because in the current situation in South Africa, companies must take from Peter and give it to Paul or take from Margaret and give to Sophie and that kind of a situation is not sustainable.”

**R6:** “And I so firmly believe this more, that having more women in the industry doing some of the advocacy work that the industry needed us to do, I think we would be such in a far better shape today, because a lot of our policies, Farana, were shaped by men for the rest of the industry”

**R9:** “I'm of the view that, in some instances, I find that mines can move even without regulation. A transformation, black empowerment in Anglo was started long before 1994. I was one of the candidates who were supposed to have benefited in those programmes. Unfortunately, I was dismissed in 1988 for participating in, encouraging workers to strike during the state of emergency. So, there was no law compelling them.”

**R2:** “And the one thing that those two guys accepted, admitted and openly said is, “We are unconsciously biased about certain things and we're open that the differences exist.” That alone in any leader is the best one can say. So, as they were going about the transformation journey, they were unconsciously biased and they were open that there were differences.”

**R2:** “sometimes we want women or we want people who are a minority, we hire them for their diversity, but we want them to conform.”

**R2:** “I think, maybe it's my stereotype that I think in general, women are more responsible than men.”

**R21:** “One thing that I've learned very early in my career, I don't have to be one of the boys to be effective.”

**R22:** “Who said when I get home, I have time to make salads and cook pap for you just because I'm female.”

**R27:** “I think we need to level the playing fields, we need to be having discussions that are about best person for the job as opposed to the right man or right woman for the job like I said before, empowerment to me it is just not about empowering women to be better but also empowering men to be better as well so that better choices can be made”

**R7:** “the last thing that I expect from all my female talent and my female partners is to try and behave like men. That is the worst thing that they can do.”

**R9:** “You know, sometimes I call this occupational blindness. When you are used to a particular environment, you can't even see what's supposed to be of concern or wrong. Some, it might be just a question of being ignorant or suffering from occupational blindness.”

**R1:** “the leaders have to make a decision that you want to do it, have to want to drive it and then yes, then it's up to the women also to take advantage.”

**R14:** “it is time that we have to take our battle to the top because you fighting- in this week only I have listened to five women who are doing very good work in the mining sector who are saying, I'm giving up. We're gonna give up until when, because we now know the issues.”

**R14:** “there are companies that are committed to that, but very few, because it's all a tick box exercise at the end of the year. How many black women, how many, what, what, and that's what it is.”

**R14:** “They're set aside in your procurement spend when you are committed as a company to empower women, like in this case entrepreneurs, you've got to have, because women are disadvantaged more than men.”

**R15:** “There is no time for letting the ladies grow into a role or even grow into the experience they literally have to be fast tracked into it.”

**R15:** “we need to know that we have the right to participate in the value chain of mini”

**R16:** “And if we were to get 50% of that to source from women. I mean, they just going to be so magical in terms of having a positive impact on society, driving transformation, empowering as many people as possible.”

**R16:** “I don't think there is enough support for women in leadership. Companies should offer support and we should also repurpose institutions to provide its self to universities, think tanks, there should be support groups being set up institute of directors.”

**R17:** “It's talking about it, it's giving examples what works, what doesn't work, why is this a good thing to do?”

**R19:** “So, we had to say, how do we make this industry an appealing industry? How do we bring new life to it, but at the same time, addressing this inequality? So, it's a big drive of the Mineral Council and I'm hoping that it is still being driven in that manner. Obviously, the Mineral Council will define and set that framework.”

**R20:** “You know, it's again to advocate to the women, go out there and publicise. We're looking for female-led companies that are involved in, you know, drilling and blasting is an example. All the technical stuff that we know women can do, right, but haven't actually come in and opened up businesses.”

**R20:** “now we need to take it further and say, you know what, we're now looking at gender specific organisations. We want a good ratio of female-led organisations coming to our company and providing their services and it's about handholding these companies on board. We've done that with other organisations when we started off our mine. We now need to take it a little further.”

**R21:** “we've done a piece of work shortly after Marikana, as a matter of fact, on where the money goes, where does salaries and wages go? And the impact of money in a women's hands versus a man's hands and how much of that money goes back into education and looking after children and community, etcetera, etcetera. And you can see that in quite a bit of women-owned businesses as well. So, that's why it's important to have women-owned businesses.”

**R25:** “And then also you wanna attract more females into the mining industry? And through showing them that it's a place to consider. I don't think a lot of women consider working in the mining industry. You actually wanted to create a way to show them it's a viable option. It's a place that you can actually find a lot of fulfilment and purpose.”

**R25:** “she was highly pregnant at the time, and she induced her birth. OK, so that she could have the baby and then still go to the mining indaba so that she could have her baby and go and speak. It's crazy. So she could go and speak to Mark Cutifani around are funny around why women owned businesses aren't being taken seriously.”

**R26:** “but the largest number of people and women that we are ever going to get into mining will be women who are just entrepreneurs, who want to do a job that helps them earn a decent and a good income. So, it's important to hype that up for them. And then also prepare them for the difficulties that they will encounter, because it's not an easy industry, even if you have the best possible will on the part of your partners, etcetera, and other players in the industry.”

**R26:** “And ultimately, policy is necessary, but more than policy, it is the commitment of the people to the course. I think, that for me, is something that I don't know how to encourage or to pull out of people, but it really is a very, very important, you know, indicator that will make sure that you can get change that lasts.”

**R28:** “I think mining companies should look at how do we create businesses that supply the mining companies and how do we create that in a way that includes this whole gender diversity framework discourse that we're talking about. How do we include that discourse into actual tangible actions and outcomes where women are running that?”

**R28:** “So, if you're a mining company and you are serious about community development, economic empowerment, then it's not just about giving people jobs, it's about giving them ownership of what they can do.”

**R29:** “The only support given to me so far is in terms of mentorship or coaching, enterprise supplier development”

## **Inclusion**

**R27:** “Umm whenever we go to conferences and that sort of stuffs you can see more of the co-mingling and male and female type interaction.”

**R25:** “I went to first Thursday club two or three weeks ago and if that was in the late 80s, nineties, OK, women wouldn't have been allowed in that club... and we had a Women in Mining South Africa event there, which was equally attended by women and men.”

**R4:** “What is it that you are doing to make sure that you get information. It's a two-way thing.”

**R24:** “I'm finding that and there's a twofold thing to this. So, the one is like, women are more militant I think about, ‘Oh, you have to employ me. I'm a woman. You have to make my workplace better for me’.. She went on to observe that: “It's almost as if women go, well, look, I'm doing you a favour, like, joining your company or joining the mining industry. So, now, turn it around, so that it's the way I want it to be.”

**R16:** “There are instances where there is a board vacancy, you ask colleagues to recommend potential candidates, you'll find the female colleagues will recommend male candidates, and then it's the men that recommend females....sometimes some women once they get there, they want to shut the door for others..”

**R24:** “A lot of women just pull their female colleagues down.”

**R30:** “We are doing it, It's not an entrenched blueprint that is followed. It's, you know, in my absence it would not have happened... It's an ad hoc initiative, initiated by somebody who's, sort of, aware of what's happening around them.”

**R4:** “I think it needs a person to also know how does each and every mine work, so that you can also follow on their way of making things.”

**R1:** “But we don't have the space or the team or the capacity to specifically address or be so, we have sometimes to do something specific, say, for women that are business owners.”

**R6:** “So, because I was already there, I was also being pushed into certain roles so that I could make the quota... Do I help the photograph right now for them?”

**R23:** “I’m a staunch believer in capitalism and creating economic growth and therefore, we’ve got to be cost competitive at the same time”.

**R1:** “I think, that the local Chambers of Commerce, the National Mining Association, all of those should do more or should have a directory of providers that include women-owned businesses, which would be searchable by key term”

**R1:** “I like those companies that have targets. They’re doing something about it. I know that lots of people don't like it. They see it as tokenistic, but I do find that if there is a legal framework, like in South Africa or when there are targets, things do tend to happen.”

**R10:** “I think the supply chain departments should have targets for service providers, suppliers, bla bla bla bla disaggregated.”

**R14:** “We need people who would advocate and change policy. And you can't change policy if you don't influence it, but you influence it with lobbying, not the lobbying that you lobby people for brown envelopes. No, no, no. To lobby and lobbying is a job because by the time you go to parliament, you who have put your thoughts and your arguments very well. We have, what is portfolio committees? Why don't you use them? There's one for department of minerals and energy. Why don't we go there? We just complain and we go to the Mines, we meet the same people who frustrate us, the same people, you know? And now even if you saying, I'm gonna take this company to court, cause I have an agreement here, you run out of money. Yeah. Or you don't even start because you know that I'm not gonna win this battle.”

**R14:** “We have to go to parliament at the portfolio committee. We start with the minister's office, the DMRE to present. Now there's a gender diversity and inclusion department at the DMRE. So at least something is going on there. You can talk to the women and we go there, we put together and they are aware of those, but we put them in such a manner that they can forget about mining companies.”

**R14:** “Right now, forget about this, go to policy makers and, and you don't make noise, but you set your problems to say, guys, it's going be until when and you cite examples of people who came and how could I want to be a woman in entrepreneur to only lose my house, my car, and everything with a contract that you gave me as Anglo -does that feel right? So it's happening over and over again. So we can't go to Anglo to fight that we have to go to the people who create that act and those policies you go there. They're not aware.”

**R14:** “So what these companies must do is first to have set aside for women to say in our spend, they should get me to write their policy procurement in our spend. This is dedicated to upskilling women because you will not upskill women in business, but the business that they run.”

**R15:** “When people are measured, then they do things very differently. But if you're not measured and it doesn't make a difference anywhere then you'll never see a difference.”

**R16:** “You do need enabling policies to be able to drive the women empowerment agenda”

**R17:** “So, I think, you know, the UK government’s tried to encourage companies to do the right thing without it being legislated. But, more and more, the ESG government’s processes, the investment companies are pushing it towards, so we're getting there. It's not surprising to me that those that are more progressive and do a better job tend to do better anyway. So, they're going to get more money, they're going to get better premiums. So, it becomes, what's it called? Yeah, self-improving process.”

**R18:** “I think quotas must have helped without me realizing it at the time. However, if I go back to the two companies you've got, when you work for progressive companies, the danger is they want to do it anyway. And putting a quota on it sounds good, but it ends up being a cap.”

**R20:** “We've got an organisation that really wants to see more females in the forefront, which assist us. And again, I come back to the fact that we don't have quotas. So, we're not managing staff through quotas, but we've got this inherent growth of women in the workforce, because they can see they can work there”

**R20:** “So, we're looking at that and ensuring that when we go out, we make sure that if there is adjudication done, you will get additional points if it's female led”

**R20:** “Well, I think it's where, you know, partnerships with private sector and also, the government needs to come in.”

**R20:** “And there needs to be funding opportunities from the banks all the way to the government to say, okay, we will sponsor this here.”

**R23:** “They should make it clear that we are addressing legacy issues with women and they should be putting capacity and resources in place to promote the concepts. That's not left to the women in businesses to do this on their behalf. They do it for safety, they do it for BEE, so why not do it for women?”

**R24:** “On one hand I think quotas are good, because it opens the door for females into any industry. On the other hand, are companies just ticking the boxes and not really getting the best people for the best jobs?”

**R25:** “I actually think it starts earlier. It starts earlier in schools and universities and as young girls showing positive role models in the mining industry.”

**R26:** “more than policy, it is the commitment of the people to the course. I think, that for me, is something that I don't know how to encourage or to pull out of people, but it really is a very, very important, you know, indicator that will make sure that you can get change that lasts.”

**R3:** “It's just, we need to intervene, because the intellectual case is solid. The business case is solid. Every case is solid. They are good macro excuses. It's all true. So, we just have to actively intervene. And by we, I mean obviously, whoever's got the power to intervene.”

**R30:** “The Minerals Council needs to be a bit more active in it as well. You know, I find that they drive certain agendas, yeah, legislation, what, what, what, but that portion of business, I don't think it gets the required attention.”

**R32:** “Another way would be, frankly, to have quotas and targets.”

**R5:** “So, I arrived and I say, fine. The starting point is that we are going to now change the policy. Every interview that we do from now on at a professional level will not include men. It will be women only candidates.”

**R7:** “And for me, it's basically getting broad agreement between the key actors within our society of what is to be done to really get our country to move forward.”

**R7:** “Government on the other hand feels that business continues to be greedy and unrealistic, and is not really interested in transforming and moving society forward. So it's within that very grey area, what exactly needs to happen to get us to move forward and it's almost as though there's a certain humility that's required from both sides, a certain amount of making of concessions to say, right, how do we meet each other halfway to really demonstrate that we are serious with one another and we want to make meaningful changes in our society.”

**R8:** “we need leaders who believe in empowerment of women and then we'll see results.”

**R8:** “leaders can make a difference by ensuring that they support, number one, I'm assuming that leader supports women's empowerment, to start with. They are not against it. If they are, then they need to cascade that culture down their organization and ensure that, you know, there are units for procurement, for instance. They know, they set targets for them, they actually also, their performance evaluation is based on those targets.”

**R9:** “I'm saying also just by encouraging people to do it without a piece of legislation, it can be easily sustainable, because it is done in a good spirit. You are not maliciously complying.”

**R17:** “So, we did unconscious bias training. It was actually very good, because it made you think differently, which I thought was useful.”

**R19:** “We went through a whole programme on mindsets to help people understand that within our mindsets there is an unconscious bias sometimes that we build in there and you need to understand and confront that unconscious bias within yourself as an individual.”

**R19:** “They need to understand why it is important to do it and help them deal with some of these unconscious biases that they have.”

**R22:** “So, it almost becomes like a forced process for you to continuously unlearn some of your blind spots that are actually hindrances for you to do your work in a fair and compatible manner.”

**R27:** “it is a big thing that I focus on internally in the organization because you know, why should there be that stigma the women need to go and organize the tea and coffee for the guests and whatever it is- send one of the men do it- it would be fine.”

**R31:** “And I have a dream, a huge dream, to tackle unconscious bias from a very young age. Because that's where it starts. It will not help me mentoring a young lady at tertiary level to prepare for the mining industry, because she already has a specific bias about herself. It will not help me mentoring a young man when he enters the industry after getting his degree. I feel like we need to start dialogue at a very young age”

**R14:** “that's our problem. We walk away like, you know what? This relationship doesn't work for me. I'm gonna leave. We shouldn't. Right now we have a voice, and some of us who came before others, and I'm sure there are people who came before me who gave up and walked away. We have to fight and actually challenge the status quo.”

**R1:** “When there is the opportunity, we remind people. Yeah, but you know, there are women led businesses. We had a PPE page which is out of date where we were happy to share women led businesses, sort of product and address, things like that. So, a little directory.”

**R1:** “But we don't have the space or the team or the capacity to specifically address or be— so, we have sometimes to do something specific, say, for women that are business owners. we may have some involvement to have something like a global directory of female-owned businesses. For example, that you could advertise everywhere, you could be on our website, it could be accessible to any mining company, etcetera.”

**R14:** “So mining companies must also come to the party to assist women who want to be suppliers. So they've got to have some programs to assist women, but also we can't wait for mining companies to do that because they haven't shown.”

**R14:** “apparently the charter is not finalized. There's still an opportunity. But did we go there? Have we been there to say, guys let's talk about this charter. Submit documents and submit”

**R15:** “But then if we carve out some way, somehow, almost like a an unwritten rule, you know, to say those who do it and commit themselves to developing and growing the women's skills within the industry or within the space can get some kind of subsidy or even have certain work apportioned for them still going forward, so that it does not completely get them out of business.”

**R15:** “I think I when I was saying KPI is important because then we are saying we are monitoring how you deal with your contractors. We are monitoring how you deal with the companies that under your employee they're offering you services. So they need to be measured on the success of their projects as well as their relationships with their service providers.”

**R15:** “I think that's where organizations like women in mining business are so important, because now we are saying let's create an open platform of where the opportunities are and try and make it as widely known as possible.”

**R15:** “Be intentional about creating opportunities for women owned entities and we willing to realise that there will be a cost to empowerment drive so let it be factored in and made conscious thing that it won't be easy or simple but will be worth it in the end”

**R16:** “And if we value them, as indeed we do, we should therefore seek to make sure that they're part and parcel of our ecosystem. They are partners of choice. They are suppliers.”

**R19:** “Now, change is not an easy thing. I have given you the mechanics, I've given you what we are putting into place and the real test now is how well it gets executed”

**R2:** “Because if you suddenly have Lebo Pasha as general manager of Isibonelo Colliery, she is definitely going to make sure there's some procurement of activities that favours women and brings women on board, because they are there and they're able to do it.”

**R2:** “So, this is a very big topic globally and it's a big topic in the UK. The pressure to appoint females and the minority groups, which includes females, to boards into senior leadership roles is amazing.”

**R20:** “So, what we do is we've given the men two weeks paternity leave, we've given the women six months maternity with full pay. So, this is also an encouragement for the ladies on the ground. We also know— it's not formal, but we also look at ensuring that we provide the capability for women to be able to go home and take care of their kids. And now with working from home, it's so much easier. Depending on which area you're in, it's fairly easy to manage your work. And I can't say work, life balance, because it's always difficult, but the fact that you have obligations at home, especially if you're a single mom dealing with your children, you have that flexibility. And it's in-built into our structures. It's not even a policy in any way, but we've seen that coming off and it's always about leading by example. If people see what I'm doing, automatically it filters down.”

**R20:** “And one thing he said to me, which really touched me, he says, “You know, I love seeing what I'm seeing right now, because it gives my daughter an opportunity to work in the mining industry.” So, that's what we want.”

**R20:** “And then on other areas where it's a supply of something, that it's equipment or whatever it is, that's very easy to deal with. And I think for us, it's just to make that first step. And actually, I would not agree with 5%.”

**R20:** “I think it's more about publicity as well, where you say, “Okay, we've gone into this here and we are not doing that very well.” And I think it's about publicising. Okay, we've gone into this arrangement with so and so company, 95% females, blah, blah. So, this is the type of information we need to get out there, because when we get that out there, you'll get more women coming to the forefront.”

**R20:** “And there needs to be funding opportunities from the banks all the way to the government to say, okay, we will sponsor this here. Banks, you make sure that you provide the relevant funding for these women, whatever it is.”

**R20:** “I think for me it's about saying, okay, as Lucara Botswana as an example, I'll use us as an example, we're looking for these expertise and we're willing to handle you as an organisation and maybe, even looking at facilitation of funding. So, this is what an organisation should do.”

**R20:** “And then thirdly, if it's a funding issue, we'll need to assist on a funding aspect.”

**R21:** “We're currently looking through some of our programmes to help her on how do we invest in her business, because she needs startup capital. And other than startup capital, from a capability point of view, she doesn't need anything. So, you've got that example of women who just, they've got everything they need and, well, probably not everything because she needs capital, but from a capability point of view, she's good.”

**R24:** “I feel that it should be more about you are a phenomenal woman running a phenomenal company and therefore we need your services. So, I suppose, if we could

change that mindset, it would be another good start just getting women to advocate for other women.”

**R25:** “I think we have to find ways that women who own businesses in the mining industry are taken seriously, that they actually know what they're talking about.”

**R29:** “the support we need is sustainable procurement of goods, like long term contracts which they give to male counterparts. We only get one purchase order as and when and we always have to keep on knocking for more opportunities. So for me, support would be giving me a long term contract.”

**R29:** “I recently joined MEMSA (Mining equipment manufacturers of South Africa) and there 90% are men and you can hardly see women there – most of the women are either secretaries or CEOs. But I believe that that’s where you’d find those opportunities. I want to grow my business and it allows me the platform to network with the likes of Sandvik, Barloworld, Epiroc. All those big equipment manufacturers. They say they are also struggling to find women suppliers. They say women are not approaching us or selling parts, they are also not manufacturers. So it’s a learning curve in mining.”

**R29:** “Well, for me there's support is like they should give women more opportunities. So if it's a career, then they should open up leadership positions, board positions and allow women to participate. And if their requirements are too stringent, then they should, you know narrow down some requirements and make sure that women are able to apply.”