

# NAVIGATING THE MINEFIELD: A PHENOMENOLOGICAL EXPLORATION OF WORKPLACE COMMUNICATION ON CAREER ADVANCEMENT FOR WOMEN IN THE MINING INDUSTRY

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## ABSTRACT

This research, employing Interpretive Phenomenological Analysis (IPA), aims to understand how women in the mining industry navigate communication barriers within a masculine culture. Through in-depth interviews with successful women in this field, the study explores their lived experiences, focusing on how they overcame biases, harassment, and other obstacles to advance their careers.

This research investigates the experiences of women in the male-dominated mining industry, where they encounter gender biases, harassment, and a deeply ingrained masculine culture. These challenges often hinder their career advancement. However, women demonstrate remarkable resilience, developing strategies such as strong work ethics, adapting their communication styles, and seeking mentorship to overcome these obstacles. Key theories, including Glass Ceiling Theory, Gendered Organization Theory, and Impression Management Theory, offer valuable insights into the systemic and individual factors that contribute to these experiences. While navigating these challenges by proving competence, adapting, and utilizing strong communication skills is crucial for success, it can also require women to suppress aspects of themselves to conform to societal expectations.

This research, using Interpretive Phenomenological Analysis, examines the experiences of women in the male-dominated mining industry. Findings reveal significant challenges, including gender bias, harassment, and a masculine culture. Women overcome these obstacles through resilience, adaptability, and by consistently demonstrating their competence. Key strategies include effective communication, building relationships, and seeking mentorship. The study emphasizes the need for systemic change, including improved recruitment, mentorship, and inclusion initiatives, to create a more equitable and supportive environment for women in mining.

**Key Words:** Breaking Barriers, IPA, Career Advancement, Masculine Culture, Bias, Harassment, Proving Competence, Communication Styles, Adaptability, Resilience

## ABSTRAK

Penelitian ini menggunakan Analisis Fenomenologi Interpretatif (IPA) bertujuan untuk memahami bagaimana perempuan dalam industri pertambangan menavigasi hambatan komunikasi dalam budaya maskulin. Melalui wawancara mendalam dengan perempuan sukses di bidang ini, penelitian ini mengeksplorasi pengalaman hidup mereka, dengan fokus pada bagaimana mereka mengatasi bias, pelecehan, dan hambatan lain untuk memajukan karir mereka.

Penelitian ini mengkaji pengalaman perempuan di industri pertambangan yang didominasi laki-laki, menghadapi bias gender, pelecehan, dan budaya maskulin yang menghambat karir. Perempuan menunjukkan ketahanan melalui etika kerja, komunikasi strategis, dan mentor. Teori Glass Ceiling, Organisasi Gender, dan Manajemen Kesan mengungkap faktor sistemik dan individu yang membentuk pengalaman ini. Meski sukses dengan membuktikan kompetensi dan komunikasi, perempuan sering harus menekan diri untuk memenuhi harapan sosial.

Penelitian ini, menggunakan Analisis Fenomenologi Interpretatif, memeriksa pengalaman perempuan dalam industri pertambangan yang didominasi laki-laki. Temuan mengungkapkan tantangan signifikan, termasuk bias gender, pelecehan, dan budaya maskulin. Perempuan mengatasi hambatan ini melalui ketahanan, kemampuan beradaptasi, dan dengan terus-menerus menunjukkan kompetensi mereka. Strategi kunci meliputi komunikasi efektif, membangun hubungan, dan mencari mentor. Penelitian ini menekankan perlunya perubahan sistemik, termasuk perekrutan yang lebih baik, mentor, dan inisiatif inklusi, untuk menciptakan lingkungan yang lebih adil dan mendukung bagi perempuan dalam pertambangan.

**Kata-kata kunci:** Mendobrak Hambatan, Kemajuan Karier, Budaya Maskulin, Bias, Pelecehan, Membuktikan Kompetensi, Gaya Komunikasi, Kemampuan Beradaptasi, Ketahanan

## INTRODUCTION

The mining industry has historically been perceived as a male-dominated sector, with women representing only 5% of the workforce in 2005 (Mayes & Pini, 2010). This participation has gradually increased, reaching 15% by 2024 (Harris, Schwartz, & Rahman, 2024). Despite this progress, deeply entrenched masculine traditions and cultural norms persist, presenting significant challenges for women. Physical demands in roles like surveying, drilling, and field operations have traditionally favored men, and even in technical roles such as geology and mining engineering, women often feel

compelled to prove themselves in unwelcoming environments. Leadership hierarchies in mining companies remain overwhelmingly male-dominated, with few exceptions, such as women in HR and external relations roles, but rarely in top executive positions like CEO. Globally, women make up only 14% of executives in over 2,000 recorded mining companies, with 46% of the top 500 companies having just one woman on their boards (Kuykendall & Duquiatan, 2023).

The lack of female leadership is evident among Indonesia's top five mining companies, where 90.12% of board members

are male. PT Bayan Resources, for example, has an 83.3% male board, with only three women among its 18 board members. Similarly, PT Adaro Energy exhibits a 90.9% male board composition, with just one female member out of 11. PT Petrosea reflects the same trend, with 90.91% male representation and only one female on the board. PT Bumi Resources TBK and PT Freeport Indonesia report even starker disparities, with female board membership at 4.17% and 8.33%, respectively. None of these companies have had a female CEO. These gender imbalances underscore a systemic issue that hinders the advancement of women into leadership roles, preventing the mining sector from fully benefiting from diverse skills and perspectives, which are essential for innovation and growth (Marinelli, Lord, & D.B., 2014).

To add to that, In regards to the increase in women's participation in the mining industry, M.Z., a mining engineer with 30 years of international experience and currently a general manager at PT. X in Indonesia, noted that while women are increasing in fields like geology, metallurgy, and engineering, areas such as surveying, drilling, and processing remain male-dominated. He explained, "*Geologists, metallurgists, and engineers have started to*

*develop in terms of the number of women participating, but in other fields such as surveyors, drilling teams, and processing it is dominated by men*". Despite some women in leadership roles in HR and External Relations, M.Z. pointed out that PT. X has never had a female CEO.

Bias and harassment are pervasive issues in the mining industry, creating an environment where women feel unwelcome and undervalued. A 2022 survey by the Australasian Institute of Mining and Metallurgy found that 70% of women in the industry experienced bullying, 85% faced unjust treatment and inequality, and over 65% reported sexual abuse. Globally, 47% of employees in mining management positions have experienced harassment (Peltier-Huntley, 2019). In the artisanal and small-scale mining sector in the Democratic Republic of Congo, 74% of women reported sexual violence (GIZ, 2019). Such findings highlight the toxic effects of a hypermasculine culture that normalizes these behaviors, further entrenching biases and limiting women's career advancement.

In addition to harassment, women in mining face structural challenges, including a persistent gender pay gap. Women earn 83% of men's salaries in Australian mining, with similar disparities in Canada (14.8%) and

South Africa (50%) (IGF, 2022c; IGF, 2022h). In Ghana, women in the extractive sector earn 27.5% less than men for the same roles (IGF, 2022e). These pay gaps reflect systemic discrimination, further discouraging women from pursuing or remaining in mining careers. Career progression is another significant barrier, with women identifying biases against their qualifications, lack of mentorship, and limited opportunities in technical and leadership roles. As a result, 35% of women leave the mining industry due to minimal growth opportunities, and 44% feel unable to adapt to the prevailing masculine culture (McKinsey, 2021).

The combination of entrenched biases, harassment, and inadequate gender-specific policies creates a hostile environment for women in mining. Despite incremental improvements, these systemic issues continue to limit women's representation and career advancement in the sector. Women often face barriers such as preferential treatment of men, cultural biases, harassment and promotion practices perceived to favor male candidates. These challenges not only hinder individual career progression but also deprive the industry of the innovative potential and diverse perspectives women bring. To foster a more inclusive and equitable mining sector, addressing these

disparities and creating supportive systems for women are essential.

## **RESEARCH OBJECTIVE**

Explore the barriers women face in male-dominated industries, focusing on biases, gendered expectations, underestimation, and harassment from early career stages to leadership roles. Examine how women navigate and overcome these barriers, including strategies to address masculine culture, the role of mentors, and handling biases and harassment to achieve career advancement.

## **RESEARCH PARADIGM**

### **Interpretive Paradigm**

This research adopts the Interpretivist Paradigm, emphasizing the understanding of subjective experiences and interpretations that shape the social world. It seeks to uncover how individuals make sense of their realities by exploring multiple perspectives and the complexity of social life (Newman, 2014). Through a phenomenological approach, this study examines the experiences of women in the male-dominated mining industry, focusing on their personal attitudes, values, and the meanings they attribute to their interactions. Employing techniques such as in-depth interviews, the research delves into communication challenges faced by women—such as

unconscious bias, harassment, and upward and peer communication barriers—and their strategies for navigating these obstacles. By capturing these nuanced experiences, the study aims to reveal the multifaceted social lives and perspectives of women in this industry.

## **THEORETICAL FRAMEWORK**

### **Glass Ceiling Theory**

The concept of the “Glass Ceiling” represents the barriers that limit women from attaining high-level positions in their workplaces, despite their abilities and qualifications (Wirth, 2001). These barriers often stem from entrenched societal and organizational biases that perpetuate the notion that women are less capable of leading. Linda Wirth (2001) identifies two key factors contributing to this phenomenon: institutional roadblocks and societal preconceptions. Institutional roadblocks include unconscious biases in promotion practices, a lack of mentorship programs tailored to women, and a preference for traditionally "masculine" leadership styles. Societal preconceptions, on the other hand, involve deeply ingrained stereotypes about gender roles, which contribute to perceptions that women are less suited for leadership. These challenges result in women being disproportionately concentrated in lower and

middle management roles while leadership positions remain male-dominated. While strides have been made in certain industries, horizontal and vertical segregation persist, underscoring the need for strategies like equality laws, mentorship programs, and gender-sensitive training to create fairer workplaces and enable women to thrive professionally (Wirth, 2001).

The mining industry, as a traditionally male-dominated field, exemplifies these challenges. Alette Van Leur (2021) highlights how biases, both conscious and unconscious, undermine women's professional advancement. Stereotypes often depict mining as an inherently masculine domain, portraying women as physically incapable or lacking the assertiveness needed for leadership roles. These biases manifest in subtle ways, such as microaggressions and the exclusion of women from essential training and promotion opportunities. Additionally, confirmation bias further exacerbates the issue, with women's actions or communication being interpreted differently than men's, often to their detriment. Such biases not only hinder the growth of qualified women but also limit the mining sector's ability to benefit from a diverse and talented workforce, ultimately impacting its potential for innovation and

success (Leur, 2021).

### **Theory of Gendered Organization**

Joan Acker's Gendered Organization Theory dismantles the notion of workplace neutrality, revealing how organizational structures are inherently gendered (Acker, 1990). Acker highlights that power dynamics and gendered assumptions shape the division of labor, hierarchies, and processes within organizations, perpetuating inequalities and rigid stereotypes. This theory sheds light on how these imbalances hinder women's career advancement, particularly in male-dominated industries like mining in Indonesia. The entrenched culture often limits women to lower-level roles, while men occupy leadership positions. Moreover, organizational cultures reinforce biases that associate specific roles or tasks with men, creating barriers to recognition and promotion for women. Acker also emphasizes that these challenges intersect with race, social class, and sexual orientation, making it vital to consider women's diverse experiences to fully understand the obstacles they face.

Harassment within the mining industry exemplifies how gendered organizational structures create hostile environments that hinder women's careers. Francine M. Deutsch (2007) and Kansake, Sakyi-Addo,

and Dumakor-Dupey (2021) identify harassment as a spectrum of inappropriate behaviors, including sexual advances and verbal abuse, which directly impact women's employment, job performance, and overall workplace atmosphere. For instance, nearly half of women in the Canadian mining industry reported harassment, while 74% in Congo's artisanal mining communities experienced gender-based violence. These issues stem from a hypermasculine culture that fosters discrimination and silences victims due to fear of retaliation. Beyond harassment, women face unequal pay, gender-based discrimination, and inappropriate recruitment demands, further marginalizing them. Addressing these systemic issues requires robust reporting mechanisms, advocacy for gender equality, and dismantling cultural norms that perpetuate exclusion and abuse. By understanding how structural biases and cultural behaviors intersect, organizations can foster equitable environments that empower women to thrive professionally.

### **Impression Management Theory**

Impression management theory, introduced by Goffman (1959), examines how individuals consciously shape how others perceive them by managing their behavior, words, and appearance. This

process involves tailoring our actions to fit different situations and achieve desired outcomes, such as gaining approval, building trust, or influencing others' perceptions. Common tactics include self-promotion, ingratiation, and adapting communication styles depending on the audience and context. By understanding and applying these strategies, individuals can navigate social situations effectively, build stronger relationships, and improve communication. This awareness also helps us recognize when others are attempting to influence our perceptions, allowing for more informed interactions. For women in male-dominated industries like mining, impression management can be an essential tool to challenge stereotypes, navigate biases, and succeed professionally. It enables women to control how they are perceived, fostering an environment where their contributions are valued and respected.

The mining industry's deeply rooted masculine culture further underscores the importance of impression management. According to Abrahamsson and Johansson (2021), mining has historically emphasized traits like physical strength, toughness, and risk-taking—qualities associated with traditional masculinity. This entrenched culture often discourages women from

voicing safety concerns or showcasing unique skills, as doing so may be perceived as incompatible with the prevailing norms. This perception creates a significant barrier for women, who face challenges in overcoming stereotypes and biases that undermine their professional growth. The industry's physical demands and the stereotype of mining as a "man's job" reinforce confirmation bias, where women's capabilities are undervalued or overlooked. This bias not only marginalizes women but also limits the sector's potential by neglecting diverse talents. Impression management offers a way for women to navigate these hurdles, enabling them to adapt their communication strategies with peers and male colleagues in upward and downward communication. By leveraging this theory, the study will analyze how women in the mining industry create impressions that challenge masculine norms, enhance their credibility, and facilitate career advancement within a challenging work environment.

## **RESEARCH METHOD**

Interpretative Phenomenological Analysis (IPA), as articulated by Jonathan A. Smith, Paul Flowers, and Michael Larkin (2009), is a qualitative research method focused on exploring how individuals make sense of their unique realities. It delves into

the subjective experiences of participants, emphasizing their perspectives while incorporating the researcher's interpretative insights. By utilizing in-depth interviews, IPA facilitates participants in sharing their stories in detail. The analysis process involves meticulously examining data to identify recurring themes and patterns, creating a rich understanding of the lived experiences. Smith, Flowers, and Larkin (2009) stress the dual role of the participant's narrative and the researcher's interpretation in achieving a nuanced presentation of these experiences, which can foster a broader understanding of the human condition.

In this research, IPA is applied to explore the lived experiences of women in the mining industry, focusing on their perspectives regarding career advancement and communication challenges. The idiographic nature of IPA allows for a deep dive into the specific, subjective realities of these women, capturing the nuances of their experiences in a male-dominated workplace. Using in-depth interviews, participants can detail their encounters with communication barriers, strategies for navigating masculine cultural norms, and the systemic issues hindering their growth. The analysis rigorously examines these narratives to uncover meaningful themes and patterns.

This approach not only aligns with IPA's emphasis on participant and researcher perspectives but also contributes valuable insights into fostering inclusivity in such environments. By shedding light on these women's unique challenges and strategies, the research can guide efforts to create more equitable and supportive workplace cultures.

In this research, the in-depth interviews are conducted with 4 informants that has at least 10 years of experience in the mining industry and have successfully managed to break the barriers that are set for them and currently works at a high-level position in the industry. The interview process will be conducted in South Jakarta, Indonesia.

## **OPERATIONAL CONCEPT**

The mining industry, long dominated by men, has seen a recent increase in the number of women entering the field (Mayes & Pini, 2010). Despite this progress, women still face significant challenges, including navigating a masculine culture, unconscious bias, harassment, limited leadership representation, and barriers to career advancement and equality. Early in their careers, women may feel marginalized, excluded from key activities, and underestimated despite their qualifications, often working harder to prove their worth

while confronting gender stereotypes. Many adapt to the physical and risk-taking culture of mining, sometimes feeling pressured to adopt masculine traits at the expense of personal authenticity. They face barriers to fitting in, such as exclusion from informal networks and decision-making processes, which hinder growth and integration. Harassment, both verbal and physical, remains a pervasive issue, with many women reluctant to report incidents due to fear of retaliation, further limiting their ability to thrive. Mentorship and support networks play a vital role in helping women heal from these experiences, navigate hostile environments, and strategize career growth. However, advancing in their careers often requires overcoming institutional barriers, breaking through the glass ceiling, and leveraging networks to achieve leadership roles. By conceptualizing these issues through theoretical frameworks like Impression Management Theory (Goffman, 1956), Gendered Organization Theory (Acker, 1990), and Glass Ceiling Theory (Wirth, 2001), this research aims to better understand women's experiences in mining and identify actionable strategies for fostering gender equality and inclusivity in the industry.

#### **PHENOMENON OF CAREER ADVANCEMENT CHALLENGES**

The masculine culture of the mining industry presents significant barriers to career advancement for women, including social, structural, and employment-related challenges. Socially, women often struggle to gain acceptance from male coworkers, leading to isolation and limited professional development (Botha, 2017). The lack of support systems like mentorship and networking further hinders their growth. Employment-related barriers, such as inadequate diversity and inclusion strategies, make it difficult for mining companies to retain female talent and create a gender-balanced workforce (Botha, 2017). To address these issues, mining companies must implement targeted strategies that promote inclusivity, provide support, and offer equal opportunities for women to succeed in their careers.

#### **PHENOMENON OF MASCULINE CULTURE**

The masculine culture in the mining industry creates a workplace environment where women often feel marginalized and unsafe due to traditional masculine norms. This culture leads to subtle microaggressions, overt discrimination, and unequal opportunities for growth, such as limited access to training and promotions that favor male employees (Botha, 2017). The absence

of support systems, like mentoring programs for women, further isolates them, hindering their professional development. While some women break through to supervisory roles, they face challenges moving into higher management positions, often due to discomfort with female leadership. This lack of advancement not only restricts women's careers but also limits the diversity and perspectives they bring to the industry.

In regards to the barriers of career advancement for women in the mining industry, A.T., a 43-year-old engineer at Bumi Suksesindo in Banyuwangi, explains that, *“Terkadang wanita tidak bisa menjadi diri nya sendiri, mereka dipaksa untuk menjadi maskulin” “Sometimes women cannot be themselves, they are forced to be masculine.”* This shows how the masculine culture within the mining industry forces women to be indulged within the culture and are forced to not be themselves. She felt pressured early in her career to be more masculine to be accepted and faced disrespect for her perceived lack of competence.

### **PHENOMENON OF BIAS**

Women in the mining industry face significant barriers due to deep-rooted gender bias, which often results in discrimination in hiring and job assignments. Despite their

qualifications, women are overlooked for challenging roles and lack the support necessary for career advancement (Iradukunda, Nahayo, & Saptandari, 2020). This bias also fuels harmful stereotypes, such as the belief that women's presence leads to increased accidents, further perpetuating the idea that women are unfit for mining work (Abrahamsson & Johansson, 2020). This creates a glass ceiling, where women are denied leadership opportunities despite their skills and experience, with male colleagues often questioning their abilities or undermining their authority (Botha, 2017). Additionally, resistance to women in leadership roles stems from cultural biases that prioritize male authority, and concerns over the appointment of inadequately trained women to leadership positions exacerbate the issue. Addressing these challenges requires challenging gender stereotypes, ensuring equal opportunities, and providing the necessary training and support for women to thrive in leadership positions, ultimately fostering a more inclusive and respectful work environment.

The issue of bias persists, especially for women starting their careers in mining. A.T. also has experienced underestimation as she mentioned, *“Di awal karir, saya pernah diremehkan karena saya wanita” “In the*

*beginning of my career, I have experienced underestimation due to my gender.”* She managed to change herself to fit in the working culture and thus found her own abilities and capabilities to overcome the masculine culture.

## **PHENOMENON OF HARASSMENT**

Sexual harassment is a significant issue in the mining industry, creating a hostile work environment that severely impacts women’s careers and mental health. The male-dominated nature of the sector makes women particularly vulnerable to harassment, ranging from verbal abuse to physical assault, which can lead to anxiety, depression, and post-traumatic stress disorder (Iradukunda, Nahayo, & Saptandari, 2020). Many women are discouraged from entering the field or pursuing challenging roles due to the fear of harassment, and those who do often face discrimination and abuse, undermining their professional growth and perpetuating gender inequality. The emotional and psychological toll of harassment can result in withdrawal from work, decreased productivity, and increased turnover (Iradukunda, Nahayo, & Saptandari, 2020), as well as a diminished sense of belonging. Moreover, the hiring process often reflects cultural biases that view mining as a male-only industry, further limiting

women's opportunities. These experiences of harassment and exclusion create a barrier to career development and safety for women in mining, making it critical to address these issues and foster a supportive, inclusive environment (Abrahamsson & Johansson, 2020).

Women face unwelcome comments, advances, or threats simply for existing in a traditionally male space. C.Z., a 29-year-old at J Resources Mining Company’s site in Bakan, is a victim of harassment in the mining industry. She explained that, *“Tangan saya pernah dipegang sama crew”* *“My hand was once held without permission by the crew.”* To add to that, she also received verbal abuse regarding physical attributes, as she mentioned that, *“Saya pernah di bilang badan saya bagus tapi dengan nada melecehkan”* *“I experienced people commenting on my body with a harassing tone.”*

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