



# Examination of the Sociocultural Barriers Facing Women Miners in Morogoro and Manyara

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## LIST OF ABBREVIATIONS

AGM	Annual General Meeting
ANOVA	Analysis of Variance
ASM	Artisanal and Small-Scale Mining
CSR	Corporate Social Responsibility
FGD	Focus Group Discussion
GDP	Gross Domestic Production
NBS	National Bureau of Statistics
PM L	Primary Mining License
REPOA	Research on Poverty Alleviation
SGBV	Sexual and Gender Based Violence
STAMICO	State Mining Corporation
TAWOMA	Tanzania Association of Women Miners
UNECA	United Nations Economic Commission for Africa

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## ABSTRACT

The purpose of this study was to examine the sociocultural barriers facing Tanzanian women miners in Morogoro and Manyara. The specific objectives of the study were to determine the socio-cultural barriers inhibiting women miners, to determine how the barriers differ among the women miners in the two regions. The study adopted a mixed methods research approach, which involved collecting both qualitative and quantitative data.

The study sample comprised 75 women miners from the two regions. Data were collected using a questionnaire containing close-ended questions, semi-structured interviews and focus group discussions.

The findings of the study indicated that the patriarchal ideology, negative social attitudes and gender-based and sexual violence were the main sociocultural barriers facing women miners in Morogoro and Manyara. However, the women miners in Morogoro reported higher mean values than their counterparts from Manyara in the areas of negative social and cultural norms and the risk of being exposed to gender-based and sexual violence. Moreover, the majority of women miners do not have access to land and mineral rights. The study recommends that policy actions be taken to ensure that women miners have access to and control land on which to undertake mining activities, and that they are protected from sexual and gender-based violence.



## Background of the Study

Worldwide, it has been empirically established that women make a significant contribution to the gross domestic production (GDP), employment creation and improvement of the standard of living through their participation in economic activities. It is acknowledged that women's participation in mining is associated with benefits such as an increase in income and their bargaining power (Hinton, 2016). The extant literature indicates that women enter the mining industry in search of livelihoods; they mainly want to earn income, fight against poverty (Byemba, 2020), and look for employment opportunities (Chipangura, 2019). Women's involvement in mining activities is the result of pull and push factors, which implies that some women engage in such activities out of choice, while others do so because they cannot help non to. Some of the push and pull factors include women's need for security, economic opportunities, a better life and a way out of economic hardships (Bashwira & Van Der Vaar, 2020).

The mining sector in Tanzania has recorded massive growth in terms of production and sales in the past two decades. Though there has been massive growth of the sector, the involvement of women in creating and developing enterprises is still low and limited to activities done at the lower levels of the value chain or the provision of services. In addition to the growth spurt, policy and law reforms were initiated in 2017 so that Tanzanians could benefit from the mining sector. The reforms included, among other things, the enactment of three laws and regulations. The reforms were aimed at empowering Tanzanian citizens to own and control mining activities, including owning shares and participating in higher-level management of companies, local or foreign.

Tanzania is one of the developing countries that attained the status of a low-middle income economy in 2020. This economic growth has been steered by fast-growing sectors, mainly the construction industry, manufacturing, mining and agriculture. However, the country faces significant inequalities in terms of participation in the economy among women and men in the mining sector. According to the 2014 Integrated Labour Force Survey conducted in Tanzania, 69.9% of women are in agriculture, forestry and fishing, as compared to 0.4% of women who are in the mining sector (1.3% less than men's labour force in the sector) (NBS, 2014).

In Tanzania, out of the 1.5 million people involved in mining, only 27% are women; they are facing several barriers in the process of growing their enterprises. (Weldegiorgis, Lawson, & Verbrugge, 2018). The barriers include lack of formal education, lack of collateral for obtaining credit, dual roles of enterprising and domestic responsibilities of parenting, and cultural roles which discourage and prevent women from participating in mining activities (World Bank, 2001). These sociocultural challenges cause women to lag behind men in the mining sector.

Women, who make up a substantial workforce in the mining sector in Tanzania, have long been side-lined in owning and controlling mining enterprises. Lack of gender disaggregated data further aggravates the problem of gender gaps in the sector, as sound policies and plans for empowering women need to data driven and empirically sound. Despite the aforementioned reforms carried out in the mining sector, women are still not participating effectively in the sector as entrepreneurs or decision makers. The majority of women miners continue to operate in ASM and outside of the legal framework. They are confined to activities such as crushing stones, sluicing them, washing, panning, sieving, sorting, mercury-gold amalgamation and amalgam decomposition. Generally, women miners are excluded from high-value places such as inside pits and trade (Meireless & Edmonds, 2021).

The presence of women in mining activities is insignificant compared to that of their male counterparts. Women are substantially prevented from enjoying the benefits of these natural endowments and are more prone to face negative effects of mining and similar activities than men are. Available data indicate that there were only 66 women (against 1,020 men) in coloured gemstones mining in Morogoro Region, and that there were only 11,809 women miners (against 37,644 men) in Manyara Region (Dreshler, 2001). The persistence of these gender gaps in the mining sector creates economic hardships for women, both those who aspire to enter the industry and those who are already engaged in mining activities. Furthermore, the hardships are perpetuated by sociocultural barriers. Thus, this study assesses the sociocultural barriers that women miners face in the regions of Morogoro and Manyara.

### **Problem Statement**

Women play a critical role in socio-economic development by engaging in entrepreneurial activities and owning businesses and assets. In the post-Beijing platform for action era, various global, regional and national laws, policies and strategies have been enacted and implemented to increase the participation of women in entrepreneurship activities and ultimately increase their ownership of assets. In the Tanzanian context, the government and various stakeholders have formulated and implemented several initiatives such as the 2000 Women and Gender Development Policy, the 2002 Women in Development Policy and the 2004 National Strategy for Gender Development, and the establishment of a ministry responsible for gender and other sectoral programmes to promote women's engagement in the establishment and development of enterprises.

However, available studies and reports indicate that women are still underrepresented in the mining sector, with sociocultural barriers being cited as being among the key factors for women miners not being able to set up enterprises. There are reports from gold and gemstones mining worldwide which show that women miners are subjected to exploitation, sexual and gender-based violence, negative social and cultural norms and the patriarchal culture. These forces diminish their presence in the mining sector. In the Tanzanian context, women miners' participation in the gemstones sub-sector is still unsatisfactory and the influence of sociocultural barriers is yet to be established empirically. In light of these persistent gender gaps in the mining sector, this study seeks to uncover the underlying sociocultural constraints that women miners face in the process of seeking effective participation in establishing and developing enterprises.

### **Research Questions**

1. What are the perceived sociocultural barriers preventing Tanzanian women from participating actively in the mining sector?
2. How do the perceived sociocultural barriers differ among women miners in the regions of Morogoro and Manyara?

### **Significance of the Study**

From a practical point of view, this study is important for building a strong background and justification for designing and implementing interventions geared towards improving the quality of women-led enterprises in the mining sector. For example, some women have succeeded against the odds. The findings of the study help to uncover the specific pathways which have made it possible for these women to achieve the successes. By documenting their success stories, effective interventions can be designed and implemented, and other women could learn from them and be inspired to make the effort to build their own enterprises in the mining sector by identifying and pursuing the opportunities obtaining in the sector.

From a scholarly point of view, this study makes a contribution to the body of knowledge on gender gaps in the mining sector by capturing the voices of women miners through a qualitative inquiry. Moreover, the findings will help inspire the conducting of further research in other sites, sectors or contexts.

The findings of this study will help to provide empirical evidence for assessing the viability of the mining-sector policies in relation to women empowerment and help to stimulate further research on whether women are benefitting from the mineral resources in Tanzania.

In terms of policy, the findings provide sound and solid evidence of the effectiveness and adequacy of various policy instruments that have been deployed by the government to address gender gaps in enterprise development, especially in the mining sector. The findings have also revealed gaps in policy implementation towards the closing of gender gaps in mining and how policies can be implemented to realize policy goals related to women enterprise development and empowerment.

### **Limitations of the Study**

This study focused only on the gemstones sub-sector of the mining industry, specifically ruby and tanzanite. Therefore, its findings are not generalizable to other types of minerals. Second, the sample size was not adequate to make strong inferences with high statistical power and precision.

# LITERATURE REVIEW AND THEORETICAL BACKGROUND

## **Theoretical Framework**

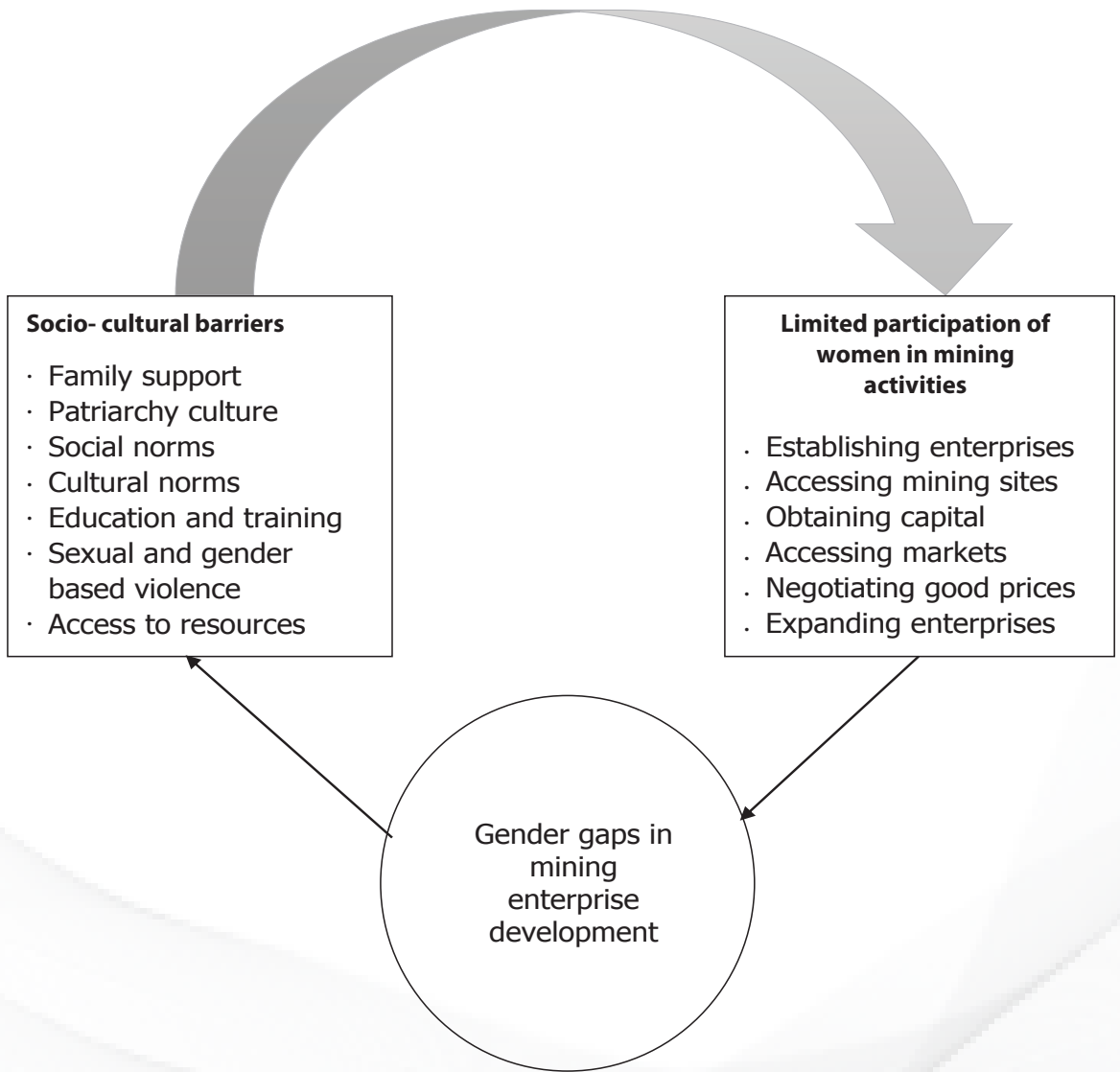
This study was guided by the social role theory of gender differences, proposed by Eagly (1987). The theory argues that widely shared gender stereotypes develop from the gender division of labour that characterizes a society. Men are usually perceived as being more physically endowed than women, which leads to the development of gender roles for men and women. These differences lead to the emergence of social and cultural expectations (gender stereotypes), which contribute to the notion that there are male-specific careers and female-specific careers. For example, mining is regarded as a male-specific career, which has led to the exclusion of women from the sector for a very long time.

This theory is appropriate to the present study, since previous studies have demonstrated that, in Tanzanian society, the gender division of labour prohibits women from participating fully in mining activities, especially in the higher-value activities in the mining value chain. The role of women has been reduced to the offering of support services such as food, drinks and sex. Only a few women are employed in the processing of minerals.

## **Conceptual Framework**

The conceptual framework for this study was informed by a review of various studies on the socio-cultural barriers limiting women's involvement and participation in establishing and owning mining enterprises. The review showed that there are several sociocultural barriers such as lack of family support, prevalence of the patriarchal ideology, negative social norms, gender-based and sexual violence, and lack of access to education. These barriers limit women's ability to establish enterprises, access mining sites, obtain capital, access markets and sell WHAT? at favourable prices, expand and ultimately grow their enterprises. Thus, these limits prevent women from contributing to the mining sector and ultimately cause gender gaps in enterprise development. The gaps reinforce sociocultural barriers and the cycle repeats itself. Figure 1 presents the conceptual framework.

Figure 1: Conceptual framework of the relationship between sociocultural barriers and gender gaps in the mining sector



**Source:** Literature Review

### **Socio-cultural Barriers Limiting Women Miners' WHAT?**

There is a vast amount of scholarly works that have documented sociocultural barriers facing women miners across the globe. The barriers cut across countries, but some of them are context specific. For instance, Dreshler (2001) notes that family commitments are a significant barrier to Tanzanian women's participation in mining activities, on since the women are prevented by their spouses from running mining businesses, which usually makes it necessary for someone to be far from home (in rural areas) for a long time. Moreover, cultural barriers impose heavy burdens and expectations on women, which limits their mobility and independence.

Specifically, women entrepreneurs and miners in Africa face significant cultural challenges that frequently disadvantage them in the entrepreneurial space. For instance, a World Bank report on doing business has highlighted that negative attitudes and perceptions towards women owning and operating businesses significantly affect women's participation in entrepreneurial activities (World Bank, 2007). These negative attitudes are built on the belief that it is the man who is traditionally the bread winner, and that, if this role is exercised by a woman, then a man is perceived as being weak and incapable of providing for the family. Moreover, women who have achieved some success and wealth in the African context are believed to have obtained their wealth through prostitution (Scott et al, 2012).

Lack of family and social support is widely cited as being among the significant sociocultural barriers that negatively impact women miners. This is mostly rooted in the societal gender division of labour and the societal expectations imposed on women. Women continue to be perceived as the primary caregivers and their involvement in entrepreneurial activities is questioned by both their families and communities. The intensive nature of mining activities demands additional family and social support, which women miners are frequently denied (Hutchings et al, 2010).

Gender stereotyping and prejudices are common in the mining sector, since the industry has long been dominated by men. The extant literature indicates that the stereotypes have been culturally framed and that there are myths showing that women are unsuitable for underground mining activities (Musonda, 2020). Because of these stereotypes, the few women who work in underground mines along with men face gender discrimination and are seen as a threat to the masculine mining culture.

Lack of education and training, both formal and mining specific, significantly diminishes the growth and development of women miners. Women miners also lack entrepreneurial education necessary for starting and growing enterprises. They are inexperienced and most of them possess a lower-level education; others are completely illiterate. This is the result of a long period of denial of education opportunities to women; girls were denied access to education opportunities. Furthermore, women miners do not attend specialized courses on mining and, hence, lack expertise and up-to-date technical and business skills.

Sexual and gender-based violence is said to be an obstacle to women miners; it occurs whether women miners are successful or unsuccessful. Successful women miners are exposed to risks of economic violence to control their economic independence. The SGBV women miners face is rooted in unequal power relations between men and women and is further reinforced by the existing societal norms that marginalise women miners. SGBV is used to reinforce the existing power relations between men and women miners, and sex is used as a tool for offering security, protection, opportunities and favours to women. Generally, SGBV is a tool for maintaining norms related to women's roles in the mining sector (Atim et al, 2020).

## Empirical Studies

Fisher (2007) examined the marginal positions of artisanal miners in sub-Saharan Africa and how they are incorporated into the mineral sector, following institutional and legal changes in the sector. The study discovered that prejudices against women in the mining sector are prevalent in terms of gendered roles of women in the sector. Moreover, non-payment of labour is common, especially for elderly women who perform gruesome tasks such as crushing stones and reprocessing tailings. The study further revealed that women miners are severely disadvantaged and depend on others, who are more powerful, for their survival. Additionally, women miners face indirect exclusion through poor representation in mining communities, lack of access to mineral resources, domestic violence and unequal compensation for their labour.

Lauwo (2016) carried out a feminist analysis of CSR in the mining sector to raise awareness of the silencing of women's voices in the CSR reports produced by mining companies in Tanzania. The results indicate that most women miners face significant challenges because of their traditional role as the primary caregivers, which hinders their full participation in mining activities, which require flexibility, working in remote areas as well as working over-time. Moreover, the study revealed that women who live in mining camps are often at risk and those working at night shifts regularly face sexual harassment. Finally, the study highlighted that gendered division of labour is pervasive in the mining sector and that makes women do low-value jobs that are equal to domestic jobs such as security, cleaning and catering.

Mutagwaba et al (2018) conducted a study to obtain evidence for informing the ASM dialogue for ASM reforms. The study established that, cultural beliefs significantly reduced women's participation in mining, for some believe that women are a source of bad luck and cause minerals to disappear. It was also revealed that the women with a primary mining licence (PML) rely on men for managing mining activities and that, consequently, they are prone to being cheated, sabotaged and sexually harassed by the men who control the pits. Furthermore, the findings indicated that women miners have been discriminated against in the allocation of mineral rights and that the majority of women do not own land for mining.

Kapinga and Montero (2017) investigated the sociocultural challenges facing women entrepreneurs who are engaged in food processing in Iringa Region. Specifically, the study examined the sociocultural challenges facing women entrepreneurs and how the challenges could be mitigated to promote the empowerment of women. The findings of the study revealed that women were burdened by unequal distribution of responsibilities in the family. Moreover, the study revealed that women entrepreneurs did not get adequate support from their spouses, as they struggled to improve their businesses on their own. In addition, most women did not receive proper education during their childhood, thus depriving them of the basic skills necessary for producing high quality products.

Mugo, Mwaura & Omolo (2020) investigated the influence of sociocultural contexts on women's participation in artisanal mining in Kenya. The purpose of the study was to examine the key bottlenecks to women's full participation in ASM, with a specific focus on sociocultural practices. The findings of the study indicated that, first, women are engaged in low-value activities in the ASM value chain. Second, women are frequently subjected to exploitation by traders and brokers, who, more often than not, devalue women's minerals. The study revealed that sociocultural practices have a significant, negative relationship with women's effective participation in the ASM sector.

Makaza and Chimuzinga (2020) examined barriers to women's full participation in ASM in Zimbabwe. The findings of the study revealed that there were the following substantial challenges. Women faced bullying by their male counterparts, intimidation by security forces, and sexual harassment and physical assault by male miners and machete gangs. In addition, most women lacked skills and education, and they could not do underground mining activities. Makaza and Chimuzinga (2020) also found that women are underrepresented in decision-making organs related to mining and that most women miners are unaware of business forums and networks related to mining.

Similarly, Kilu et al (2017) investigated the effects of male dominance and masculinity culture on women in the Ghanaian multinational mines, in terms of their participation in mining jobs. The findings of the study revealed that the sociocultural barriers that affect women's participation in Ghanaian mine jobs include common prejudices and perceptions, as well as implicit stereotyped notions on gender roles. The common prejudice was that men are physically endowed to do difficult tasks, perform heavy duties and handle machinery better than women. It was also found that Ghanaian society strongly believes that men are better miners than women.



# RESEARCH METHODOLOGY

## Research Approach

This study adopted a mixed methods research approach; both qualitative and quantitative data were collected. The rationale for using this approach was to combine the strengths of qualitative and quantitative research (depth and breadth), to obtain a complete understanding of the problem and to compare results. Quantitative and qualitative data were collected simultaneously. The mixed methods approach was useful for understanding the breadth of the sociocultural barriers facing women miners. The qualitative approach helped to capture the stories, insights and experiences of women miners and other stakeholders, in relation to research questions.

## Research Design

We adopted the convergent mixed methods research design, which allowed simultaneous collection of qualitative and quantitative data. The design was adopted to collect different but complementary data relating to the research questions. By comparing quantitative and qualitative data, we were able to get a complete understanding of the depth and breadth of the sociocultural barriers facing women miners in the regions of Morogoro and Manyara. The research design made it possible to explain the quantitative results using qualitative findings and the narratives obtained through interviews and focus group discussions. Finally, the convergent design enabled the researchers to merge the results to gain a complete understanding of the research problem.

## Description of the Study Area

This study was conducted in the regions of Morogoro and Manyara in Tanzania. The regions were selected because they are among the few regions in the country that produce rare gemstones (Mutagwaba, Mwaipopo-Ako & Mlaki, 1997), and because no extensive research on gender gaps in the gemstone subsector of the mining sector, especially tanzanite and ruby, has been conducted. Morogoro Region is active in mining activities, for there are mining sites in almost all its districts and a variety of mineral deposits are found in the region. Manyara is well known for producing tanzanite, which is mined only in Tanzania. Although these regions possess a substantial number of mineral deposits, women lag behind men in relation to their involvement in mining activities in the region.

## Sample Size and Sampling Technique

The study population comprised women miners from the regions of Manyara and Morogoro. The respondents were obtained using purposive and snowball sampling so that they could provide useful, rich and accurate information pertaining to the research questions. Data from TAWOMA show that there are about 150 female miners in the two regions. The sample size was 108 women miners, using Yamane's formula with two assumptions of first a margin error of 5%, confidence level of 95%. A total of 75 copies of the questionnaire were collected from the respondents; this number represents a response rate of 69%.

## Data Collection Methods

Data were collected using a structured questionnaire, semi-structured interviews and focus group discussions. Close-ended questionnaires were used in collecting quantitative data from the respondents. The questionnaire contained 32 questions, 28 of which covered seven dimensions of the relevant socio-cultural barriers, each with four statements. The dimensions include family and social support, patriarchal culture, social norms, cultural norms, education and training, access to resources, and sexual and gender-based violence. Specific items were developed to capture the perceptions of women miners in relation to these dimensions. The items were formulated in a Likert scale type, in which respondents chose from 'strongly agree' up to 'strongly disagree' responses for the given items.

The reliability of the questionnaire was measured using Cronbach's Alpha and the obtained value was 0.885. Since this value is above 0.6, it may be concluded that the quantitative instrument was reliable, and the results obtained are also reliable. The results of the reliability analysis are presented in Table 1.

Table 1: Reliability Coefficients

Dimension	Number of Items	Cronbach's Alpha
Family support	4	.548
Patriarchal culture	4	.775
Social norms	4	.653
Cultural norms	4	.588
Education and training	4	.655
Access to resources	4	.558
Sexual and gender-based violence	4	.868
<b>Overall</b>	<b>28</b>	<b>.885</b>

Semi-structured interviews and focus group discussions were used to collect valuable information on women miners' experiences, beliefs, feelings and attitudes to the research questions. This type of information could not be collected using close-ended questions. Individual interviews lasted somewhere from 30 to 60 minutes. The interviews were conducted in Kiswahili so that there could be smooth communication between the interviewers and the respondents, since Kiswahili is spoken and understood by the women miners.

### Data Analysis Techniques

Data analysis was done in three stages. In the first stage, quantitative data were analysed using a statistical analysis software package (SPSS), whereby both descriptive and inferential statistical tests were computed. Descriptive statistics are used to show the magnitude of each sociocultural barrier in terms of mean and standard deviation. Inferential statistics were obtained through an analysis of variance (ANOVA). They are used to determine whether there are any significant statistical differences in the mean values between the women miners in the two regions across the seven dimensions of sociocultural barriers investigated.

In the second stage, the qualitative data obtained from semi-structured interviews and focus group discussions were analysed thematically. First, the researchers familiarized themselves with the field notes by reading and re-reading them to get an overview of the data. Second, the researchers developed codes to represent the key ideas extracted from the field notes. Third, themes were generated from the codes by looking at patterns and the themes were further reviewed for accuracy. Finally, the themes were defined to ensure clarity.

### Ethical Considerations

The study adhered to various research protocols and ethical procedures. First, research clearance was obtained from the Office of the Deputy Vice-Chancellor at the University of Dar es Salaam so that the researchers could conduct the study. After securing the research clearance, the letters were presented to respondents in the research sites before data collection started. Second, informed consent was sought from the respondents. The researchers introduced themselves and explained the purpose of the study prior to conducting the interviews. The respondents were assured of confidentiality and anonymity. Third, the researchers kept the identities of the study respondents confidential and none of the researchers asked for the identities of the respondents. Fourth, reporting of the findings adhered to the principles of confidentiality and anonymity; the researchers ensured that the presentation of results did not reveal the respondents' identities.

## RESULTS AND DISCUSSION

### Women Miners' Profiles

The study collected demographic information on the women miners. Table 2 shows the age, marital status, number of children, and level of education of each miner, as well as the level of education of the miners' spouses.

Table 2: Women Miners' Profiles

Demographic Characteristic	Frequency	Percent
<b>Age</b>		
20 – 29	11	14.7
30 – 39	15	20.0
40 – 49	27	36.0
50 – 59	15	20.0
Over 60 years	7	9.3
<b>Marital status</b>		
Single	7	9.3
Married	48	64.0
Divorced	4	5.3
Widow	16	21.3
<b>Number of children</b>		
None	4	5.3
1 to 2	21	28.0
3 to 4	29	38.7
More than 4	21	28.0
<b>Women miners' level of education</b>		
Primary	62	82.7
Secondary	8	10.7
Certificate	0	0.0
Diploma	3	4.0
University	2	2.6
<b>Spouses' level of education (n=48)</b>		
Primary	40	83.0
Secondary	6	12.8
Certificate	0	0.0
Diploma	0	0.0
University	2	4.2

Table 2 shows that more than half of the women miners (59.2%) are aged 40 and above, and that the rest are below the age of 40. This means that mining activities are not attractive to youths and young women. In terms of marital status, the majority of women miners are married (68.5%), which implies that they have multiple roles and responsibilities. In addition, 78.5% of the women miners have more than two children, which implies that most of the women miners have significant parenting responsibilities. The majority of women miners have primary school education (90.7%). None of them has a university degree. Table 1 also reveals that most of the women miners' spouses (97.3%) have primary school education as well.

### Training and Experience in Mining Business

Table 3 presents the training the women received and their experience in mining activities. The findings in Table 2 indicate that the majority of women miners (98.1%) did not receive any kind of formal training in mining prior to their involvement in mining activities. Therefore, it could be argued that most of the women miners lack the technical competencies and business knowledge necessary for successfully establishing and sustaining mining enterprises.

Table 3: Training and Experience

Did you receive any training prior to starting mining activities?	Frequency	Percent
Yes	6	8.0
No	69	92.0
<b>Experience in mining business (in years)</b>		
1 to 5	44	58.7
6 to 10	10	13.3
11 to 15	6	8.0
More than 15	15	20.0

The results in Table 3 also indicate that the majority of women miners (74.1%) have less than five years' experience in the mining industry.

### Profiles of Women Miners' Enterprises

Data on the characteristics of women enterprises in terms of enterprise ownership, source of start-up capital and number of employees are presented in Table 4.

Table 4: Profile of Women Miners' Enterprises

Business Ownership	Frequency	Percent
Sole proprietor	11	14.7
Limited liability company	3	4.0
Partnership	5	6.7
Group	56	74.7
<b>Source of start-up capital</b>		
Personal savings	65	86.7
Spouse	1	1.3
Family/relatives	8	10.7
Loan	1	1.3

The results in Table 4 indicate that all the women miners conducted their activities in groups; five groups of women miners were visited in Morogoro Region. Regarding the source of start-up capital, most of the women miners (98.1%) mentioned personal savings as their source of capital. This implies that the women miners have limited funding opportunities for establishing and running enterprises. Furthermore, the findings indicate huge exclusion of women from financial services and related services.

### Sociocultural Barriers Facing Women Miners

This section presents the findings of the study in relation to the sociocultural barriers facing women miners in the regions of Morogoro and Manyara. Both quantitative and qualitative data were collected in relation to this research question. We first present the quantitative results related to each theme, and then qualitative narratives obtained from individual respondents. We augment the results and narratives with findings from the FGDs for each theme related to the sociocultural barriers hampering women from participating in the Tanzanian mining sector. The mean values of the statements are interpreted using the scale developed by Pimentel (2010), as Table 5 shows.

Table 5: Interpretation of Likert Statements

Likert-Scale Description	Likert-Scale	Likert-Scale Interval
Strongly disagree	1	1.00 – 1.80
Slightly disagree	2	1.81 – 2.60
Not sure	3	2.61 – 3.40
Slightly agree	4	3.41 – 4.20
Strongly agree	5	4.21 – 5.00

Table 6 presents the main findings of the study in relation to the sociocultural barriers facing women miners in Morogoro and Manyara. The findings suggest that the women miners see that the prevalence of a strong patriarchal culture and ideology, negative social norms and sexual and gender-based violence as the key sociocultural barriers facing them and stunting their development as entrepreneurs.

Table 6: Sociocultural Barriers Facing Women Miners

Dimension	Mean	SD	Interpretation of Mean
Family support	2.82	1.08	Not sure
Patriarchal culture	4.06	1.09	Strongly agree
Social norms	3.91	1.00	Strongly agree
Cultural norms	2.75	1.01	Not sure
Education and training	3.35	1.06	Slightly agree
Sexual and gender-based violence	3.71	1.31	Strongly agree
Access to resources	3.73	0.78	Slightly agree

They also agreed to some extent that lack of education and training, and of access to resources also inhibited their involvement in mining activities. Lastly, there were mixed feelings as to whether family support and cultural norms were also significant barriers to women’s involvement in mining activities. A detailed description of each sociocultural barrier is provided in the subsequent paragraphs.

A further comparison of the mean values for the two regions is made in Table 7 to show the differences in perception of the sociocultural barriers between the women miners in the two regions.

Table 7: Regional Comparison of Sociocultural Barriers

Dimension	Morogoro		Manyara		Overall	
	Mean	SD	Mean	SD	Mean	SD
Family support	2.62	1.01	3.33	1.10	2.82	1.08
Patriarchal culture	4.18	1.09	3.77	1.08	4.06	1.09
Social norms	4.24	0.77	3.07	1.06	3.91	1.00
Cultural norms	3.18	0.77	1.65	0.67	2.75	1.01
Education and training	3.44	1.15	3.11	0.74	3.35	1.06
Sexual and gender-based violence	4.38	0.69	1.99	0.86	3.71	1.31
Access to resources	3.79	0.73	3.56	0.89	3.73	0.78

### Family Support

The results indicate that there were mixed feelings as to whether family support was or was not a barrier to women miner's involvement in mining activities. However, all the women miners agreed strongly that traditional reproductive challenges did not allow them to fully participate in mining activities, from the stage of last trimester of the pregnancy up to the first two years of the child. Table 8 presents a summary of the study findings.

Table 8: Family Support

Statement	Mean	SD
Lack of support from the spouse	2.35	1.75
Traditional reproductive roles	3.57	1.63
Stereotypical gender roles/family responsibilities	2.46	1.65
Lack of support from parents and relatives	2.09	1.36
<b>Overall mean</b>	<b>2.62</b>	<b>1.01</b>

Qualitative findings from the interviews showed that the traditional reproductive roles significantly affected women's participation in mining activities, especially during the post-natal period. One woman entrepreneur commented thus:

*In my experience in mining, the most challenging period was when I got pregnant. I had to walk a long distance from home to the mining sites. Keep in mind that sometimes you need to camp for a few days and with such conditions it is very difficult for you to do so. Similarly, when I gave birth, I could not go to the bush with my infant child. I had to stay at home and take care of the child until she was about two years old. Just imagine having four kids, how much time is lost in child-rearing?*

Another woman miner talked about how negative perceptions of women's involvement in mining led her fiancé to cancel their wedding. She explained:

*I was engaged to a man who intended to marry me. However, we could not come to an agreement that I should stop involving myself in mining activities. He constantly said that I would not be faithful to him due to my frequent interaction with men in mining sites. I reflected on what he said, but I could not stop doing mining activities, as they enabled me to support my family. I decided to let him go.*

Another woman miner added:

*My husband's relatives and other people around us started to tell my husband that I was not doing the right things as a woman. Although initially my husband had supported my mining activities, as the pressure mounted, he began to doubt his decision and eventually became annoyed with my involvement in mining activities.*

### **Patriarchal Culture**

The study results in Table 9 indicate that there is high prevalence of patriarchal culture and ideology in the mining sector, which significantly retards the progress of women miners. The main beliefs that undermine women are that men are naturally and more suited for excelling in mining activities compared to women, and that women should leave mining activities to men. In addition, most of men perceived women as weak and incompetent. They also see them as lacking the confidence one needs to succeed in the mining industry. In a nutshell, men who are engaged in mining activities believe that women miners deserve to do the low-paying activities in the mining value chain.

Table 9: Patriarchal Culture

Statement	Mean	SD
It is believed that men outperform women in mining activities.	4.09	1.39
Women miners are viewed as weak and not confident.	4.00	1.52
Women should leave mining to men.	4.09	1.47
Most of women do low-paying jobs in mining.	4.52	1.08
<b>Overall mean</b>	<b>4.18</b>	<b>1.09</b>

Qualitative findings from the interviews and focus group discussions provide deep insights into the prevalence of patriarchal culture in mining activities, as one woman miner reported:

*Women miners are disrespected and constantly nagged. You have to display masculine traits at least to be accepted by men. Personally, I always dress like a man so that they can perceive me as being tough.*

Another woman miner added that:

*The market for mining equipment is predominated by men. You need to have networks and business relationships with them so that you can secure equipment at either cheap prices or on credit. Sadly, most of these men trust and prefer to conduct business with other men.*

The prevalence of patriarchal culture affects women's involvement in the mining sector across the whole mining value chain. Most women miners noted that the male-dominated market for mining products significantly undermined their efforts to get fair prices. One woman miner commented thus:

*Women are not at all involved in the selling of the gems. Usually, when we get the gems, we take them to a male broker who negotiates and sells them in our absence. Then, the broker comes and tells us how much he has made from the sale. There is no transparency at all in the gem selling process*

### **Social Norms**

Negative social norms were also found to be a significant barrier to women miners. For example, most women miners agreed that the society and the surrounding community view them as uncontrollable, rebellious and disobedient. Moreover, they agreed that most companies and dealers prefer to work with men to working with women, implying that there is social and gender discrimination in business dealings. Lastly, there was a strong consensus among the women miners that the society disrespects them because their involvement in mining is contrary to the gendered, social norms, which see women as being only suitable for performing reproductive, caring and nurturing roles. Table 10 presents the results.



Table 10: Social Norms

Statement	Mea	SD
Most companies and individuals working with men.	4.48	1.04
Lack of respect for women miners in the community	4.19	1.27
Social discrimination and prejudices against women	4.20	1.16
Women miners are viewed as disobedient and uncontrollable.	4.07	1.45
<b>Overall mean</b>	<b>4.24</b>	<b>0.77</b>

The qualitative results provide more insights into the impact of negative, social norms on women's involvement in mining activities. For example, one woman miner elaborated on how the discriminatory practices of companies and individuals undermine women's growth in mining sector. She explained:

*When we take our gems to the buyers, there are usually different prices for men and women. Men usually fetch higher prices than women do. Since you need the buyers to buy your products, you lose the bargaining power and accept the prices they offer, no matter how low they are. It is completely unfair.*

Negative social norms related to women miners are also evident in terms of names, labelling and the stereotypes directed towards them. One woman miner explained this thus:

*Our society does not agree that women can mine. You are always under constant verbal harassment from both men and women. They say that you are going against societal expectations, which do not accept that women can mine. You do not get support from your own society.*

Another woman miner added:

*The society perceive us as insane. People would argue whether it is appropriate for a woman to leave agricultural activities for mining. Generally, our society has a strong belief that women cannot succeed in the mining industry."*

Moreover, men who have allowed their women to engage in mining activities constantly face a backlash from the society. One woman miner commented thus:

*Men who allow their wives to mine are ridiculed in the society in many ways. First, they are nagged for their inability to take care of their wives, implying that they are weak. Second, they are perceived as irresponsible, since they allow their wives to be exposed to other men and situations that are inappropriate for women.*

Negative social norms not only discourage women from doing mining activities, but they also reinforce and perpetuate the long-existing, negative stereotypes and prejudices against women miners. One woman miner remarked:

*We are constantly verbally harassed and abused by both men and other women. They say that we are going against social expectations, which have been imposed on us women. Women cannot mine and, even if they do so, they will never succeed.*

Women miners face significant social resistance and are stigmatized and labelled, as one-woman miner explains:

*The community perceives us as prostitutes, believing that mining is not our primary activity, but rather just a cover-up for our business of sleeping with men. Personally, I have not succeeded in finding a husband because I am labelled as a prostitute and as someone who is difficult to control.*



Another woman miner said:

*The community perceives as insane people, rogues and failures in life. We do not have any life options; that's why we have resorted to mining. Some women also say that we are in mining to steal their husbands and engage in adulterous affairs with them.*

### **Cultural Norms**

The results pertaining to cultural norms were also mixed as women miners did not reach an agreement on whether they constituted a barrier or not. However, they strongly agreed that women were viewed as 'unclean,' especially during their menstruation days. For example, in one group women noted that they had agreed not to enter mineral sites whenever they were menstruating to ensure that their condition did not 'affect' the availability of minerals. They further explained that an individual woman would feel guilty in her conscious if she entered a mining site during menstruation.

However, this view was not shared by the women in the other four groups, who argued that menstruation has nothing to do with the availability of minerals. In addition, there was a slight agreement that women miners were viewed as unfit and unsuitable for being wives and for performing parenting roles. This view is based on the belief that women should devote their time to performing family roles and responsibilities. Table 11 presents the findings related to cultural norms.

Table 11: Cultural Norms

Statement	Mea	SD
A misunderstanding of religious teachings affects women.	1.76	1.16
A strong belief that women should not have male associates	2.85	1.63
Women are unclean and can cause the disappearance of minerals.	4.41	1.17
Women miners cannot be good mothers and wives.	3.69	1.55
<b>Overall mean</b>	<b>3.18</b>	<b>0.77</b>

The qualitative findings revealed that the most pervasive sociocultural barrier facing women miners was the belief that women are unclean and can cause the disappearance of minerals. During the interviews, women talked about different forms of stereotypes, prejudices, harassment and violence that they were exposed to because of this belief. One woman miner commented:

*Women are not allowed to enter mining sites during menstruation. If a woman enters a mining site while in this condition, we do not get any gems.*

This belief was also reinforced by the women themselves in two ways. First, women miners believed that elders' prayers and rituals could solve most of the problems in mining. Their level of trust in the elders is very high. This was affirmed by one women miner who said:

*We cannot go against the traditions and directives of our elders. If you are menstruating, your conscience tells you not to enter the mine, as no one will find out if you are in that condition. If you go there while menstruating and the group does not get anything, you feel guilty of causing such a misfortune.*

There were mixed opinions on this issue, as highlighted above. The majority of women in Morogoro and Manyara did not see this cultural norm as a barrier.

### **Education and Training**

The overall study results also indicated that there was a slight agreement among the women miners on education as a barrier to their full participation in mining activities. Table 12 presents the results. However, there was a strong agreement among the women miners that lack of education and training constituted a major barrier to their growth and development. This is also reflected by the fact that the majority of women miners have only primary school education.

Table 12: Education and Training

<b>Statement</b>	<b>Mean</b>	<b>SD</b>
Lack of adequate training and education affects women miners.	3.78	1.54
The society places high value on men in the provision of education	3.15	1.81
Men get better education opportunities than women.	2.74	1.53
Women miners have fewer business connections than men.	4.11	1.34
<b>Overall mean</b>	<b>3.35</b>	<b>1.06</b>

Qualitative findings from the interviews and focus group discussions revealed the disadvantages facing women miners due to the lack of proper education and training related to both formal schooling and mining activities. One woman miner commented thus:

*We have a serious lack of ability to establish the market value of our minerals. Yes, we extract them, but we do not have the capacity to determine their value; thus, we are disadvantaged when we give our minerals to brokers to sell for us. Often, we earn less money than the actual market value of the gems.*

Another women miner added:

*We are manipulated by the mineral brokers and buyers because we don't know the value of the gems. You may sell a gem at a low price and later on hear that the stone has been sold at a much higher price. It is a huge challenge.*

Moreover, lack of education and training has reduced their capacity to learn and utilize modern methods of mining. In this regard, one woman miner explained:

*I rely on outdated and inefficient traditional methods of mining, which utilize equipment such as hammers, chisels, shovels and pickaxes. Not only that, I have to work longer hours. In addition, I lack modern techniques to do my activities safely and quickly.*

### **Sexual and Gender-Based Violence**

The overall study results indicate that gender-based and sexual violence constitute a major barrier to women's involvement and participation in mining activities. More specifically, most women miners explained that they faced significant risks of being scammed, robbed and defrauded. Moreover, women miners noted that there was inadequate protection and security from emotional and sexual violence in the mining sites. In addition, women miners strongly agreed that they were more prone to physical assault, violence and incidences of rape than men. Table 13 summarizes the results.

Table 13: Sexual and Gender-Based Violence

<b>Statement</b>	<b>Mean</b>	<b>SD</b>
Sexual violence and harassment affect women in mining.	3.91	1.35
Inadequate protection of women miners from violence	4.48	1.02
Women miners are more prone to being attacked than men.	4.39	1.14
Women miners face more business-related risks than men.	4.76	0.47
<b>Overall mean</b>	<b>4.38</b>	<b>0.69</b>

The qualitative findings revealed incidences in which women miners faced significant risks while conducting their mining activities. One women miner explained:

*Women miners are not safe at all when they get certain gemstones. They are likely to be attacked by robbers, some of who are their own labourers.*

Another woman who experienced a threat after getting gems in her mining site commented:

*I got some minerals at my site. Word got out and my safety and security were in jeopardy, since robbers were waiting for me to step outside of my site so that they could attack me. I stayed in my hut until nighttime when I quietly escaped through the roof. I walked in the bushes dressed like a man and arrived in town in the morning. Everyone was surprised by how shabby I looked, but I was glad I had made it there without being robbed of my minerals.*

Although none of the women miners provided a personal account of sexual abuse or attack, one woman miner explained:

*Few cases related of rape and assault against women miners have been reported. They were not handled properly for unknown reasons, though we speculate that bribery might be the reason for that. However, only one case involving a woman miner who had been raped by a male miner was successfully taken to court and the woman got justice.*

### **Access to Resources**

The study results indicated that accessing resources, whether financial, business networks or other business services also prevented women miners from successfully participating in mining activities. The most notable challenge mentioned by the women miners related to accessing credit for financing their mining operations due to their inability to offer collateral and meet bank loan-related requirements. Moreover, the women miners agreed that they were underrepresented in business networks compared to men. In general, they reported that there were many barriers that prevented women from entering the mining sector. Table 14 presents the results on access to resources.

Table 14: Access to Resources

Statement	Mean	SD
Women face more constraints in accessing capital than men.	4.70	0.60
Existing laws and policies reduce women's access to land.	1.93	1.41
Women miners are underrepresented in business networks.	4.33	0.99
Women miners face barriers that make them exit from mining.	4.20	1.32
<b>Overall mean</b>	<b>3.79</b>	<b>0.73</b>

Qualitative findings also revealed the extent of the problem of accessing land resources. One woman miner said:

*We do not own land and thus ask farmers to lease us their land. Therefore, we do not have any guarantee of accessing the land for a long time. This limits our ability to invest in the land; we are afraid of losing our investments.*

They also face difficulties in investing in mining operations, as one woman explained the uncertainty, they faced in relation to control of land:

*When we discover land that has large mineral deposits, we are chased away by men. As a result, we have to start searching for new mining sites all over again. That upsets us and we do not have anyone to stand up for us.*

Furthermore, the women miners in Morogoro explained that their biggest obstacle was legally accessing and controlling land for undertaking mining activities. They provided an example of their counterparts in Tanga who have secured title deeds and are mining without fearing to lose their investments or being chased away.

The women miners in Manyara did not perceive access to land resources as a sociocultural barrier. They explained that land reforms have brought about equality in the acquisition and control of land.

### Differences between the Women Miners in Morogoro and Manyara

The study also sought to establish whether there were any significant differences between the women miners in Morogoro and Manyara in how they perceive the sociocultural barriers. A one-way analysis of variance (ANOVA) test was conducted and tested at a significance level of 0.05. The results of the ANOVA test are presented in Table 15.

The results indicated that there were significant differences in the perception of sociocultural barriers between the women miners in the two regions in relation to four dimensions, namely family support, social norms, cultural norms and sexual and gender-based violence. The differences could be explained on the basis of several factors. A further analysis of the mean differences was conducted to establish which region recorded higher scores in the categories showing significant differences in the ANOVA test.

Table 15: ANOVA Results for the Two Regions

		Sum of Squares	df	Mean Square	f	Sig.
Mean family support	Between groups	6.741	1	6.741	6.271	.015
	Within groups	73.089	68	1.075		
	<b>Total</b>	<b>79.829</b>	<b>69</b>			
Mean patriarchal culture	Between groups	1.237	1	1.237	1.102	.298
	Within groups	76.325	68	1.122		
	<b>Total</b>	<b>77.562</b>	<b>69</b>			
Mean social norms	Between groups	13.980	1	13.980	20.942	.000
	Within groups	45.392	68	.668		
	<b>Total</b>	<b>59.371</b>	<b>69</b>			
Mean cultural norms	Between groups	29.689	1	29.689	53.724	.000
	Within groups	37.579	68	.553		
	<b>Total</b>	<b>67.268</b>	<b>69</b>			
Mean education and training	Between groups	2.438	1	2.438	2.130	.149
	Within groups	77.833	68	1.145		
	<b>Total</b>	<b>80.271</b>	<b>69</b>			
Mean sexual and gender based-violence	Between groups	67.434	1	67.434	123.543	.000
	Within groups	37.116	68	.546		
	<b>Total</b>	<b>104.550</b>	<b>69</b>			
Mean access to resources	Between groups	.837	1	.837	1.443	.234
	Within groups	39.453	68	.580		
	<b>Total</b>	<b>40.290</b>	<b>69</b>			

A further analysis of the differences between the women miners in Morogoro and Manyara is presented in the subsequent paragraphs. Qualitative findings from the interviews and focus group discussions are used to explain the differences.

## Family Support

Table 16 presents the mean values relating to the support that the family provides to the women miners in Morogoro and Manyara. The results indicate that the women miners in Morogoro receive significantly less family support than their counterparts in Manyara.

Table 16: Mean Values of Family Support

Location		FS1	FS2	FS3	FS4
Morogoro	Mean	2.35	3.57	2.46	2.09
	N	54	54	54	54
	SD	1.75	1.63	1.65	1.36
Manyara	Mean	3.86	3.29	2.95	3.24
	N	21	21	21	21
	SD	1.68	1.52	1.60	1.61
Total	Mean	2.77	3.49	2.60	2.41
	N	75	75	75	75
	SD	1.85	1.60	1.64	1.52

The significant differences were observed in three statements. The first one was about whether women miners receive adequate support from their spouses. The women miners in Morogoro reported getting less spousal support than the women miners in Manyara do. Second, the women miners in Morogoro reported receiving less support from their parents and close relatives than their counterparts in Manyara. Third, stereotypical gender roles were more highly reported in Morogoro than in Manyara. This third difference shows that the women miners in Morogoro are consistently bombarded with messages from family and close relatives geared towards influencing them to play limited and stereotyped gender roles and identities that discourage their involvement in mining activities.

## Social Norms

Table 17 presents the mean values relating to the dimension of social norms in the two regions. The results indicate that the women miners in Morogoro scored higher than their counterparts in Manyara in all the statements related to the influence of social norms on women miners' involvement in mining.

Table 17: Mean Values of Social Norms

Location		SN1	SN2	SN3	SN4
Morogoro	Mean	4.48	4.19	4.20	4.07
	N	54	54	54	54
	SD	1.04	1.2	1.16	1.45
Manyara	Mean	3.90	2.62	3.19	2.57
	N	21	21	21	21
	SD	1.45	1.50	1.57	1.63
Total	Mean	4.32	3.75	3.92	3.65
	N	75	75	75	75
	SD	1.19	1.51	1.35	1.64

These results indicate that differences in social context significantly affect women's participation in mining activities, with some social contexts supporting women miners and others not. For example, the women miners in Morogoro mentioned that most companies prefer doing business with men over women. This was confirmed in the qualitative interviews and focus group discussions, during which the women miners explained that, when they get gemstones, they send their male counterparts or brokers to sell the gemstones on their behalf. Therefore, the women miners are excluded from the negotiation and bargaining processes.

## Cultural Norms

The ANOVA test also indicated that there were significant differences between the women miners in Morogoro and those in Manyara in the dimension of cultural norms. Table 18 presents the mean differences between the two regions.

Table 18: Mean Values of Cultural Norms

Location		CN1	CN2	CN3	CN4
Morogoro	Mean	1.76	2.85	4.41	3.69
	N	54	54	54	54
	SD	1.16	1.63	1.17	1.55
Manyara	Mean	1.10	1.90	1.86	1.76
	N	21	21	21	21
	SD	.30	1.18	1.15	1.30
Total	Mean	1.57	2.59	3.69	3.15
	N	75	75	75	75
	SD	1.04	1.57	1.64	1.71

The major difference was observed in the statement that said women were unclean and their presence in mines could cause the disappearance of minerals. This belief was strongly held by the women miners in Morogoro Region and slightly rejected by the women miners in Manyara. In Morogoro, the women miners confirmed during focus group discussions that they listened to the elders and depended on them for providing paths to minerals deposits. The elders provided several instructions, one of which was that women who are menstruating should not enter mining sites. In contrast, this belief was not accepted by the women miners in Manyara. They provided accounts of women miners who had successfully gone deep into the underground to mine.

## Sexual and Gender-Based Violence

The ANOVA results revealed a significant difference between the women miners in Morogoro and those in Manyara regarding the dimension of sexual and gender-based violence. The mean differences are displayed in Table 19.

Table 19: Mean Values of Sexual and Gender-Based Violence

Location		SGV1	SGV2	SGV3	SGV4
Morogoro	Mean	3.9074	4.4815	4.3889	4.7593
	N	54	54	54	54
	SD	1.34961	1.02314	1.13962	.47325
Manyara	Mean	1.8095	1.3810	1.6667	3.0952
	N	21	21	21	21
	SD	1.16701	.49761	1.06458	1.64027
Total	Mean	3.3200	3.6133	3.6267	4.2933
	N	75	75	75	75
	SD	1.60371	1.66760	1.65850	1.20554

The results indicate that there was a significant mean difference in the statements related to sexual violence and harassment, and the protection of women from violence and exposure to attacks by male miners. Further qualitative inquiry revealed interesting factors underlying these differences. The results from the interviews indicate that the women miners in Manyara feel more secure and protected from violence and physical attacks than those in Morogoro as a result of the wall constructed around the mining area. The wall has helped to significantly reduce sexual and gender-based violence. Security has been improved in the area, where there are banks and a well-established system for selling minerals at fair prices, as well as cash-depositing services.



Unlike the women miners in Manyara, those in Morogoro explained that they were exposed to risks related to sexual and gender-based violence. Thus, they decided to incorporate men into their groups to have protection and safety when they go into the mines.

### **Discussion of the Findings**

The findings of the study revealed that traditional gender roles of reproduction barred women from participating effectively in mining activities and ultimately growing their enterprises. The time spent performing reproductive roles prevent women entrepreneurs from dedicating their energy and resources to establishing and growing enterprises. These findings are consistent with the results of Kapinga and Monero (2017), who found that multiple responsibilities prevented women from devoting time to growing their enterprises. In addition, the problem of multiple responsibilities was compounded by little or no assistance received from their spouses. Similarly, the demands of mining activities such as working for long hours and staying in remote camps for a considerable length of time hindered women miners from participating effectively in mining activities. This is also confirmed by a study by Lauwo (2016).

The findings of the study also indicated that women miners face significant risks such as robbery, fraud, physical assault, insecurity, rape and sexual harassment. These findings are supported by the findings of a study by Makaza and Chimuzinga (2020), who found that the women participating in ASM in Zimbabwe were subjected to bullying by their male counterparts, intimidation by security forces, as well as sexual harassment and physical assault by male miners and machete gangs.

The findings showed that most companies and men preferred working with men more than working with women, and that women could not participate fully in bargaining for better prices for their mineral products. These findings are supported by the findings of a study by Mugo, Mwaura and Omolo (2020), who also found that women miners are frequently subjected to exploitation by traders and brokers who often undervalue their minerals. It was mentioned by the women miners that, whenever they got minerals, they asked men to sale the minerals for them. Again, these findings are consistent with the social theory of gender differences, which suggests that societal and cultural expectations may discriminate against and prohibit a certain gender from participating in specific economic activities. The findings of our study confirm that women in Tanzania are not expected to engage in mining activities.

The findings also indicate that women miners frequently receive lower wages for their labour and sometimes do not get any wages at all. There is discrimination in hiring, which is grounded on the notion that women cannot provide sufficient labour. This has also been confirmed by Fisher (2007), who found that women miners are sometimes not paid for their labour. Similarly, Werdegiorgis et al (2018) reported that women are often underpaid, exploited and deprived of important information on financial flows from mining operations.

The findings also indicated that the majority of women miners in Morogoro Region do not have land on which to undertake mining activities. They do not possess primary mining licences (PML). Lack of access to land was found to be a significant barrier to security and investment, as women miners are not sure whether they will be allowed to continue to mine in un-surveyed areas. Moreover, they cannot access credit from financial institutions because they do not have title deeds. These findings confirm the findings of a study by Mutagwaba (2018), who explains that women miners have been discriminated against in the allocation of mineral rights and that the majority of them do not own land for mining.

The findings of the present study also revealed that women miners perceive sexual and gender-based violence as a significant sociocultural barrier, especially in Morogoro Region. The nature of mining activities exposes women to significant risks arising from, first, the remoteness of mining areas and, secondly, the internal and external environments in which mining pits are found.

Economic violence is common in terms of scamming, robbing and assaulting women miners once they have obtained gemstones. Other forms of SGBV reported in mining areas include physical violence, sexual abuse, emotional violence, exploitation and maltreatment. These findings have also been reported by Musinda (2020) and Mutagwaba (2018), who found that sexual and gender-based violence are perpetrated by men against women miners due to unequal gender relations and as a means of reinforcing the patriarchal culture in the mining sector. Additionally, Botha (2016) reported that sexual harassment and sexual favouritism are major issues in the mining industry. Some of the women miners confessed that offering sex in exchange for protection and support was among the strategies they used to survive in the mining industry.

It was also revealed that negative social norms are pervasive in the mining sector due to gender stereotypes and the societal expectations placed on women. Women miners are stigmatised, labelled and bullied by men as well as other women. They are perceived as uncontrollable and rebellious. They are also seen as prostitutes. Similar findings have been reported by Valaderes et al (2022), who established that, even though women are increasingly engaging in mining as entrepreneurs or corporate executives, there are still discriminatory behaviours, moral harassment, teasing and inappropriate jokes.

The findings of the study revealed that patriarchal culture is still pervasive in the mining sector and significantly limits women's participation in mining activities. There was a strong agreement that most women perform low-paying jobs related to the processing of minerals and the collection of low value byproducts. It is agreed that this is the result of gendered roles and unequal power relations. Furthermore, women miners are still perceived as incompetent, weak and lacking in the confidence they need to succeed in mining. These results are supported by Botha and Cronje (2015), who found that male co-workers and managers see women as being unable to do mine work that requires physical strength and stamina. However, this is still a contested topic, as women miners argue that they can perform tasks that men perform as well as men do.



# CONCLUSION AND RECOMMENDATIONS

## Summary of the Study

The present study was conducted to examine the sociocultural barriers facing women miners in the regions of Morogoro and Manyara. The specific objectives of the study were to identify the sociocultural barriers, to explore the coping strategies that the women miners use to overcome the sociocultural barriers and to determine the strategies used by various stakeholders in the mining sector to address the sociocultural barriers facing women miners. The study adopted a mixed methods research approach, which involved both quantitative and qualitative data. The study sample comprised women miners, government officials at both central and local government levels and leaders of women's associations in the mining sector.

The quantitative and qualitative data were analysed separately and later merged to compare the results and triangulate the findings to enhance the complementarity and validity of the findings. Quantitative data were analysed using SPSS to obtain descriptive statistics in the form of means and standard deviations. Qualitative data were analysed thematically to establish themes that explained the quantitative findings. Ethical guidelines and considerations were taken into account by obtaining research clearance and permits from the University of Dar es Salaam, ensuring participants' confidentiality by safeguarding the data and obtaining informed consent from the participants before administering the questionnaire or conducting the interviews and focus group discussion.

## Summary of the Findings

The findings revealed that there were three major sociocultural barriers constraining women miners' involvement in mining activities. These were the prevalence of a strong patriarchal culture and ideology, the presence of negative social norms and the prevalence of gender-based and sexual violence. To a small extent, the women miners mentioned lack of education and training, and their inability to access and control resources as the sociocultural barriers that stood in their way.

Although access to resources was not mentioned as a major barrier, the biggest hurdle for women miners is non-ownership of mining sites, which bear title deeds as well as primary mining licences. Consequently, the women miners in Morogoro Region carry out their activities on other people's farms and thus cannot get credit.

## Conclusion

Based on the findings of the study, the following conclusions are drawn in relation to the research questions. First, the women miners do not have permanent land on which to undertake mining activities. This is because they do not have title deeds and primary mining licences, particularly the women in Morogoro. This is a key barrier as it makes it impossible for the women to inject capital into their businesses; they are afraid of losing their investments. Second, the women miners do not have full autonomy to access mining sites, as they are still subjected to the taboo that, if a menstruating woman enters a mining pit, she can cause the disappearance of minerals.

In addition, low level education, coupled with a lack of business training provided before women engage in mining activities, has made women miners unable to generate viable business plans to expand their enterprises, search for information on markets, negotiate with buyers to get better prices and grow their enterprises.

## **Policy Implications and Recommendations**

Based on the findings of the study and the conclusion, we recommend the following policy actions:

- i. The government should clearly develop policy instruments for promoting women's participation in mining, which are in line with the policy statements of the 2008 Minerals Policy.
- ii. The government should develop policy monitoring and evaluation mechanisms to ensure women miners receive education and training opportunities so that they can transform their mining enterprises.
- iii. The government and relevant stakeholders should develop sound programmes and strategies for formalising small-scale mining, in which women miners are largely engaged.
- iv. The Mining Law of 2019 should be reviewed so that it contains clauses that carry commitments and are enforceable in relation to granting women miners mining licenses with ease. Moreover, the law needs to incorporate gender issues.
- v. The government and other stakeholders should provide a reliable and conducive environment for women miners, as the 2008 Minerals Policy demands. Moreover, women miners should be allowed to engage in underground mining operations.

## **Recommendations for Further Research**

Based on the findings of the study, we recommend that further research be conducted to determine whether there are any differences between men and women miners in terms of the perception of how sociocultural barriers influence the establishment and development of enterprises. We also recommend similar studies be conducted in different contexts, as Tanzania is vast and has many ethnic groups, each with its own sociocultural characteristics.

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