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**Regis University
Regis College
Master of Development Practice**

Advisor/Final Project Faculty Approval Form

Master's Candidate: Kanekwa Kachinga

Capstone Title: Empowering Women in the Zambian Gemstone Industry: A Pathway to Bridge the Gender Gap in Value Addition

Presented in the MDP Community Forum on: May 6, 2024

I approve this capstone as partial fulfillment of the requirements for the Master of Development Practice.

A handwritten signature in black ink, appearing to read 'Scott Merrill'.

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Date: May 23, 2024

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Master of Development Practice, Regis University

Capstone Project

Advisor 1. Prof. Scott Merrill

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TITLE

"Empowering Women in the Zambian Gemstone Industry: A Pathway to Bridge the Gender Gap in Value Addition."

ACKNOWLEDGMENT

I want to express my heartfelt appreciation to God and everyone who has supported me throughout the development of my capstone project. I sincerely thank my advisors, Prof. Scott Merrill and Monica LaBiche Brown, for their invaluable guidance, feedback, and unwavering support. Their expertise and mentorship have been crucial in shaping the direction of my project.

I am also profoundly thankful to Prof. Nina Miller and the faculty at Regis University for providing me with the resources and encouragement needed to pursue this endeavour. Their commitment to academic excellence has been genuinely inspiring. Additionally, I appreciate the Gemstone Processing and Lapidary Training Centre in Ndola for their willingness to collaborate and implement the training program outlined in my project. Their dedication to empowering women in rural mining communities is commendable, and I am honored to be working alongside them.

I am also grateful for the support and encouragement from IEEE Smart Village, Kuumba Smart Vision Board (Linda Campos , Rajan Kapur, Robin Podmore, John Nelson , and Steve Szablya (RIP), who have contributed to the development of my project and standing with me in pursuing gender equality and economic empowerment. Thank you my dear friend James Mumba for believing and encouraging in me through the three years

Last but not least, I want to express my gratitude to the women in the Zambian gemstone industry who have shared their experiences and insights with me. Their resilience and determination have been the driving force behind this project, and I am committed to advocating for their empowerment and inclusion in the industry.

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PERSONAL STATEMENT

While browsing through my two years of study at Regis University, the phrase “must be comfortable working with live bees” caught my attention. Although I had initially planned to pursue a different capstone project, I could not shake the Kuumba Smart Vision's impact in the villages where women had set it up two years ago. Seeing the positive difference in their lives, even with earnings as small as \$5 per carat, struck a chord with me. Seeing how these women could budget and provide for their families and extended dependents was inspiring.

However, it was also disheartening to see how these same women were often relegated to odd jobs like cleaning, selling food, and cooking or were married off at a young age despite the abundance of gemstones in their region. Even more frustrating is that the country needs to take advantage of the value addition of gemstones; instead, it exports them in their rough form, only for value to be added in other countries like India or Thailand before being imported back into Zambia.

Furthermore, the gemstone industry in Zambia has long been dominated by men, with women often relegated to the sidelines despite being the primary consumers of the end products. This lack of inclusion denies women their rightful place in the industry and deprives them of the full range of talent and skills that women can bring to the table.

To address this issue, it is crucial to create a market in the gemstone industry that is more accessible to women. One way to achieve this is by increasing the number of women involved in value addition, such as processing and lapidary work. This will create a more diverse and inclusive workforce and provide women with opportunities for income generation and economic empowerment.

Another critical factor is to address the cultural and social barriers that prevent women from participating fully in the industry. This can be accomplished through education and awareness-raising campaigns that promote gender equality and challenge traditional gender roles and stereotypes.

Furthermore, providing women with the necessary tools and resources to succeed in the industry is essential. This includes training and skills development programs and access to finance and markets.

Ultimately, creating a more inclusive and accessible market for women in the gemstone industry will benefit women themselves and contribute to the growth and development of the industry as a whole. By harnessing the full potential of women's talent and skills, we can unlock new opportunities for innovation and growth and build a more prosperous and equitable future for all.

I aim to develop a project addressing the lack of women's inclusion in gemstone processing and lapidary in Zambia. I will collaborate with the Gemstone Processing and Lapidary Training Centre in Ndola to implement a training program that helps women in rural mining communities acquire skills and form cooperatives or incubators. This will empower women to develop a sustainable livelihood and contribute to the growth of the gemstone industry.

EXECUTIVE SUMMARY

Gemstone value addition has become an increasingly important industry in many countries worldwide. Despite the immense potential for growth in this industry, there are still many challenges to overcome, such as limited access to resources and markets and inadequate knowledge and skills.

According to Kinyanjui and Githiri (2019), women have historically faced significant challenges in accessing education and training in the gemstone value-addition industry, contributing to their underrepresentation in the field. However, in recent years, there has been progress in empowering women in this industry, allowing them to overcome these barriers and achieve more tremendous success.

In my literature review, I have highlighted the benefits of empowering women in the gemstone value-addition industry, which can help create more sustainable and inclusive economic growth. By providing women with the necessary tools and resources to succeed in this industry, we can help create a more equitable and just society. Moreover, women's empowerment in the gemstone value addition industry can promote gender equality more broadly. By breaking down the barriers that hinder women from fully participating in the economy, we can help to create a more equal and just society for all.

Additionally, I have provided details on how far the organization (Kuumba Smart Vision) has gone in implementing the project, and the current challenge is sales. I conducted a needs assessment, and through interviews with gurus, jewelers, and newbies, I gathered insights into the value-added gemstones market in the industry. Most proposed online sales and partnering with local and international jewelers through associations. I believe that when women see their gems being sold,

this will encourage more women to join the industry, become part of the decision-makers, and improve their livelihoods and those of their community.

LITERATURE REVIEW

Introduction

This text focuses on the inclusion of women in gemstone processing and lapidary and explores three themes through the eyes of others. The three themes are defining women's empowerment, identifying opportunities and challenges, sustainability, and discussing the factors that need to be considered in the industry. Each theme is examined in detail, and the paper concludes by discussing the importance of Kuumba Smart Vision Zambia, a new organization founded in 2021, and what can be learned from the experiences of others.

What is Women's empowerment?

There are different interpretations of the concept of empowerment and other types of empowerment, but it is essential to define women's empowerment and what types of empowerment they need. Sometimes, it is used interchangeably with terms such as participation, user involvement, self-help, and capacity building. Generally, it denotes both a process and a goal. According to the United Nations Population Information Network (2011), women empowerment has five components: women's sense of self-worth, determining their right to make choices; access to opportunities and resources, their right to have power to control their lives; their ability to influence the direction of change to create a more just social and economic environment, nationally and internationally.

For Freire (1972), empowerment is not just a matter of extending knowledge, skills, and resources to the oppressed; it is education through which dialogue is employed. Thus, the role of the facilitator is not the extension or banking of knowledge but awakening critical awareness and enabling people to realize the potential within them.

The different authors' definitions of women's empowerment suggest that women gain more authority and charge over their own lives. This refers to the idea of women continuing to be at a disadvantage to men in various economic, sociocultural, and political areas (Hilson, 2018). As a result, women's empowerment can be considered a significant step toward achieving gender equality. It can also be defined as "individuals' rights, duties, and opportunities will not be determined by whether they are born male or female." Ledar 2016 defines women's empowerment as a woman's ability to make decisions and access opportunities and resources that provide her with various possibilities.

According to Oditi et al. (2016), they observe that when a woman has an expansion of choice, she gains access to a world of possibilities that she might not have ever considered before, like what she will do, when and to whom she would marry, and so on. It entails that when a woman has strengthened her voice, she can participate in and lend a voice to public and private discussions and decisions about her life. Finally, when she has the transformation of power herself, she becomes independent in making life decisions. This power can be within herself or from others. This can be manifested as in the pyramid. Hence, empowerment is the mixture of choice, voice, and power. It is the feeling of having worth and purpose in life.

Economic empowerment

CARE (2020) has provided a clear definition of women's economic empowerment. According to their definition, "Women's economic empowerment is a process through which women gain access to economic resources and decision-making power that benefits themselves, their families, and their communities." This involves equal access to economic resources, assets, and opportunities and long-term changes in social norms and cultural and economic structures that benefit women

and men equally. Skills empowerment programs have been implemented worldwide to enable individuals to acquire relevant skills that enhance their employability and income-generating opportunities. A literature review of such programs reveals that they have successfully promoted economic development and reduced poverty in various communities.

Skill empowerment

One impactful type of empowerment is skills empowerment programs. For example, the Technical and Vocational Education and Training (TVET) program, which provides individuals with practical skills relevant to the job market and self-employment. According to a study by Kanyenze, Odero, and Omiat (2015), TVET programs have been implemented in different countries, including developing nations, successfully reducing youth unemployment rates and promoting economic growth. The study further highlights that TVET programs promote sustainable development and reduce poverty.

Another successful skills empowerment program is the entrepreneurship development program, which provides individuals with the skills required to start and manage their businesses. Such programs have been implemented in different parts of the world, successfully promoting self-employment and creating employment opportunities for others. A study by Al-Mubarak and Busler (2015) shows that entrepreneurship development programs have successfully promoted economic development and reduced poverty in developing countries. The study further highlights that such programs promote innovation and foster economic growth.

In addition to TVET and entrepreneurship development programs, other skills empowerment programs include apprenticeship programs, mentorship programs, and on-the-job training. These programs have successfully enabled individuals to acquire the skills required for different job roles

and have contributed to the growth of various industries. A study by Betcherman, Godfrey, Puerto, and Rother (2007) shows that apprenticeship programs have successfully promoted skills development and reduced unemployment rates in different countries.

Skills empowerment programs have successfully promoted economic development and reduced poverty in different communities. Nevertheless, the success of such programs depends on various factors, including the relevance of the skills being taught, the availability of job opportunities, and the support provided to program participants. As highlighted by Betcherman et al. (2007), the success of apprenticeship programs depends on the quality of training offered, the availability of job opportunities, and the support provided to apprentices. Therefore, skills empowerment programs must be designed and implemented to address the intended needs of the target population and the local job market.

The authors discuss the meaning of empowerment and conclude that women's empowerment requires a change in people's mindset, which can only be achieved through education, access to resources, and giving girls and women a voice. For my study, I define empowerment as a process that involves enhancing the ability of individuals or groups to make choices and take control over their lives and surroundings. It involves providing people with the necessary resources, knowledge, and skills to achieve their goals, solve problems, and develop resilience. Empowerment can take various forms depending on the context. However, some common elements include ensuring people's participation in social, economic, and political processes, increasing their access to information and resources, and giving them a voice. The ultimate goal of empowerment is to enable people to realize their full potential as human beings and to shape the direction of social change.

Importance of gender equality

Gender equality and women empowerment are essential components of sustainable development. Gender equality refers to "leveling the playing field for both men and women so that all sexes" can develop their talents in a given geographical environment (UNICEF, 2008). According to Backhans (2007), gender equality means equal opportunities and removing obstacles hindering women from participating fully in commerce, education, politics, and culture. Studies have shown that gender equality is addressed by giving women more access to land, credit markets, and labor opportunities (Morrison et al., 2007).

Gender inequality is prevalent in countries with low per capita income and limited government expenditure on education (Dollar & Gatti, 1999; Morris et al., 2007). In such countries, women often have limited access to several aspects such as education and job opportunities, leading to lower economic growth and development. Furthermore, gender inequality can lead to a lower quality of life for both men and women, including higher rates of poverty and poor health outcomes. Therefore, reducing gender inequality is essential for promoting economic growth and improving the well-being of societies.

Rahman (2013) argues that gender inequality is a product of the power relationships between women and men. Every human society has a way of rewarding one sex with more power to the extent that the sex that has no power over the control of resources becomes the oppressed lot (Rowland, 1997). According to Luke (1974), the concept of power in women's empowerment helps researchers, academics, and policymakers to examine the underlying social and cultural structures that define gender relations.

Gender equality in gemstone value addition is essential for achieving social justice and economic growth (Kapinga, 2018). The participation of women in the gemstone value addition can significantly increase their income and contribute to reducing poverty and promoting sustainable development (Kapinga, 2018). On the other hand, the lack of gender equality in the gemstone value addition can lead to gender-based discrimination and violence, limiting women's access to resources and decision-making (Peters & Katsigris, 2019). Including women in the gemstone value addition can diversify the industry's workforce and bring new perspectives and skills (Peters & Katsigris, 2019).

Promoting gender equality and women's empowerment is essential for sustainable development. Research has demonstrated that gender equality is closely linked to economic growth, and countries with lower per capita income and limited government expenditure on education often experience gender inequality. Therefore, policymakers should reduce gender inequality and encourage gender equality to promote society's welfare.

Challenges and opportunities in the value addition in the gemstones industry.

Challenges

There seems to be a negative relationship between participation in women's groups and empowerment, which shows increased burdens for members as well as increases in domestic violence. For instance, one study by Arakai (1997) in the Monze District of Zambia confirms that belonging to a women's group requires time and commitment to attend weekly meetings and participate in other activities. The increased workload has been reported to increase health issues for some women and is sometimes considered burdensome (Daley-Harris, 2000). Furthermore, Women have been said to feel less empowered because their work commitments seem to take time

away from their children, making them feel less confident in their role as mothers. However, since they were happy with the results, they did not consider work a burden.

Women in the gemstone industry face several challenges in value addition, including limited access to finance, technical training, and market information (Pervin, 2020). According to a report by the International Trade Centre (ITC), women are often excluded from decision-making processes and need access to information on market trends and prices, which can result in them receiving lower prices for their products (ITC, 2017).

Another challenge women face in gemstone value addition is the need for more technical skills and knowledge. Women often need more access to training on gemstone cutting, polishing, and grading, limiting their ability to add value to their products (Pervin, 2020).

Furthermore, gender-based constraints and stereotypes can limit women's participation in the industry, including lack of mobility, childcare responsibilities, and cultural biases (ITC, 2017). These challenges can restrict women's access to markets, financing, and training opportunities.

Despite these challenges, several initiatives aim to support women in the gemstone industry. For example, the ITC's SheTrades program provides training, mentorship, and market access for women entrepreneurs in the gemstone sector (ITC, 2019). Additionally, the African Women in Gemstones and Minerals Association promotes women's participation in the industry through training, advocacy, and networking (AWGMA, n.d.). By addressing these challenges and promoting women's participation in the industry, the gemstone sector can become more inclusive and sustainable.

Opportunities in the industry

Gemstone value addition presents numerous opportunities for women regarding economic empowerment, skills development, and job creation (UN Women, 2021). According to a report by the International Trade Centre (ITC), women account for a significant proportion of the workforce in the gemstone industry. However, they are often excluded from higher value-adding activities such as cutting and polishing due to cultural and social barriers (ITC, 2019). However, initiatives such as Kuumba Smart Vision-Zambia are working to address this by providing women with the necessary skills and training to cut and polish gemstones, creating job opportunities in the industry, and promoting economic independence (Kuumba et al., 2021).

One of the main advantages of gemstone value addition for women is that it can provide them with a more stable source of income and greater economic independence (UN Women, 2021). In addition, value addition can also provide opportunities for women to develop new skills and knowledge, which can help to improve their employability and career prospects (ITC, 2019). Furthermore, value-addition initiatives can help to promote gender equality in the industry by breaking down cultural norms and social barriers that prevent women from participating in higher value-adding activities (UN Women, 2021).

Moreover, promoting gemstone value addition can also lead to the development of new markets for finished products, both locally and internationally, which can create more sustainable jobs for women in the industry (ITC, 2019). Additionally, value addition can help reduce the environmental impact of gemstone mining by promoting the recycling of waste materials and reducing the volume of raw materials exported to other countries (Van Rooyen et al., 2018).

Lawson (2020) discusses Thailand's significance as a global center for gemstone value addition. However, entrepreneurship across the country is affected by patriarchy and 'invisible masculinity,

' although a few privileged women have experienced a degree of empowerment and fair working conditions.

In conclusion, women in the gemstone value addition industry face various challenges, including limited funding and training opportunities, gender-based discrimination, and lack of market access. However, opportunities are also available, such as funding and programs exclusively designed for women, which can promote gender equality as well as empowering women in the industry. Value-addition initiatives in the gemstone industry can create jobs, promote economic independence, and develop new markets for finished products, making it essential for governments and stakeholders to invest in initiatives that specifically target women.

Sustainability in the gemstone industry for women

Sustainability strategies in the gemstone value addition industry are crucial for its long-term growth and development. One strategy is to promote responsible mining practices that consider environmental, social, and economic factors (Tibbett et al., 2019). This includes reducing the environmental footprint of mining activities and ensuring that workers in the industry are treated fairly and compensated appropriately.

Another strategy is to encourage the use of renewable energy sources in the processing and value addition of gemstones. This can help reduce the industry's carbon footprint and contribute to the fight against climate change (Kumar, 2021). Finally, a third strategy is to promote transparency and traceability in the supply chain of gemstones. This can help prevent the trade of conflict or illegal gemstones and ensure that workers throughout the supply chain are treated fairly (Hsu et al., 2017).

By implementing these sustainability strategies, the gemstone value addition industry can contribute to achieving the United Nations Sustainable Development Goals, particularly Goal 8 (Decent Work and Economic Growth) and Goal 12 (Responsible Consumption and Production).

One of the challenges facing women in the gemstone industry is the lack of access to finance and markets. This makes it difficult for them to acquire the necessary tools and resources to succeed in the industry. According to Banda, Kaseke, and Ncube (2019), this can be addressed by providing microfinance and credit facilities to women in the industry. This will enable them to acquire the necessary equipment and materials and access markets both locally and internationally. Another challenge facing women in the industry is the lack of skills and knowledge in value addition processes such as processing and lapidary work. According to Seshoka and Kaseke (2019), this can be addressed through training and skills development programs. These programs should be tailored to the needs of women in the industry and be accessible to those in rural mining communities.

The formation of cooperatives and incubators is another strategy that can be used to promote sustainability for women in the value-addition process. According to Ndulo and Mwansa (2020), cooperatives and incubators provide women with a platform to collaborate, share resources, and access markets. This can help to create a more inclusive and diverse workforce and promote sustainability in the industry.

Furthermore, skills programs can help women enter male-dominated industries and increase their participation in the labor force. For example, Women in Mining Zimbabwe (WIM) supports the skills and training to cut and polish gemstones, which is traditionally male-dominated. By doing

so, WIM promotes gender equality and creates job opportunities for women in the lapidary industry, which can lead to long-term sustainability.

Networking is crucial for women's empowerment in the gemstone value addition industry as it can lead to the long-term sustainability of projects and economic independence for women. According to a study by Kibicho and Muthoni (2019), networking provides women with opportunities to share knowledge and experiences, access resources, and collaborate with other stakeholders in the industry. Through networking, women can also identify market opportunities and establish partnerships with buyers, which can help to increase demand for their products.

In conclusion, sustainability for women in value addition in the gemstone industry is critical to long-term growth and development. Addressing the challenges women face in the industry, such as lack of access to finance, training, and markets, and promoting the formation of cooperatives and incubators, can help create a more inclusive and sustainable industry.

Literature review conclusion

The literature covers various topics, including empowerment, gender equality, skills empowerment, challenges, opportunities, and sustainability in the gemstone industry, focusing on women's empowerment. Empowerment is defined as a process that involves enhancing the ability of individuals or groups to make choices and take control over their lives and surroundings. The literature also highlights the importance of skills empowerment programs, such as Technical and Vocational Education and Training (TVET) and entrepreneurship development programs, in promoting economic development and reducing poverty in different communities.

Gender equality and women's empowerment are essential components of sustainable development. Studies have shown that gender equality correlates highly with economic growth, and gender inequality is prevalent in countries with low per capita income as well as limited government expenditure on education. Therefore, reducing gender inequality is essential for promoting economic growth and improving the well-being of societies.

Women in the gemstone industry face several challenges in value addition, including limited access to finance, technical training, and market information. However, initiatives such as Women in Mining Zimbabwe are working to address this by providing women with the necessary skills and training to cut and polish gemstones, creating job opportunities in the industry, and promoting economic independence. Additionally, opportunities are available, such as funding and programs exclusively designed for women, which can promote gender equality and empower women in the industry.

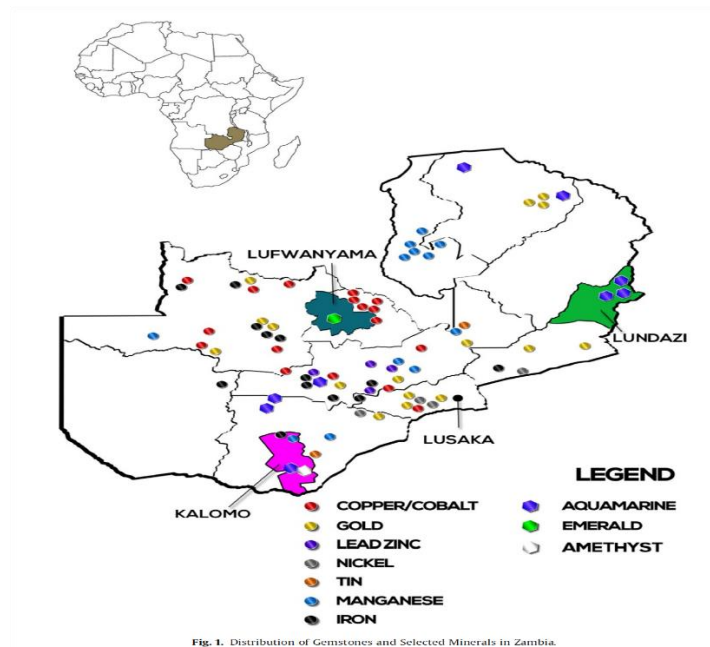
Furthermore, the literature highlights the significance of sustainability for women in the gemstone industry. Rural women are more prone to absolute poverty and require targeted actions to enhance their access to alternative income-generation activities and support services and information and knowledge on sustainable and resilient resource management in different industries. Skills programs and networking are crucial for women's economic empowerment and long-term sustainability in the gemstone industry.

Unfortunately, the literature on the gemstone industry and women's empowerment has some gaps that need to be addressed. For instance, there is limited research on women's experiences working in the gemstone industry in different parts of the world. Additionally, the literature does not explore the role of men in promoting gender equality and empowering women in the industry. Furthermore, there is a need for more studies on the social and cultural barriers that women face

in the industry and how they impact their economic empowerment and sustainability. Addressing these gaps in the literature can provide valuable insights into how to promote gender equality and empower women in the gemstone industry.

In conclusion, the literature emphasizes the importance of women's empowerment, gender equality, and sustainability in the gemstone industry. Initiatives that specifically target women can create jobs, promote economic independence, and develop new markets for finished products, making it essential for governments and stakeholders to invest in initiatives that promote women's empowerment and sustainability in the industry.

COMMUNITY CONTEXT



Map of Zambia highlighting some minerals and gemstones

Zambia is a landlocked country in Southern Africa, east of Angola and south of the Democratic Republic of the Congo. Its total area is 752,618 square kilometers, with 743,398 square kilometers of land and 9,220 square kilometers of water. The country's coordinates are 1500S and 3000E. In terms of total area, it is ranked 40th in the world.

Zambia is experiencing a major demographic shift and is one of the world's youngest countries in median age. Its population is estimated to be around 19.6 million in 2021, with a rapid growth rate of 2.7% annually. This reflects the relatively high fertility rate and the fact that much of the population lives in urban areas.

Zambia is a lower middle-income Sub-Saharan economy and a significant copper exporter. However, it also has high public debt, which is held mainly by China. Systemic corruption is also

a significant issue. On the positive side, Zambia has one of the region's youngest and fastest-growing labor forces and is a regional hydroelectricity exporter.

Zambia's top individual and corporate tax rates are 37.5 percent and 30 percent, respectively. The tax burden is equal to 14.7 percent of GDP. The trade-weighted average tariff rate is 9.9 percent, and extensive non-tariff barriers distort trade flows. Unfortunately, Zambia does not have a modern investment framework.

Gemstone Community

Zambia's gemstone community produces high-quality emeralds, amethysts, garnets, and other precious stones. The country is the second-largest producer of emeralds in the world. Despite the global recognition and appreciation of Zambia's gemstone resources, the country has not fully capitalized on the benefits that they can offer. Currently, most of these precious minerals are sold in their raw form, limiting the economic value they can derive from them. The value chain encompasses less than 3 percent of women as it is believed they are not masculine enough. Most women participate in agriculture, cooperatives for goats, chickens, and maize farming. Culturally, any form of mining gemstones is believed to be a men's field, while women are considered to have jobs such as cleaning, cooking, housekeeping, and farming. Early marriages in most mining towns are prominent as most men come from different villages to settle in the mining town and re-marry (Gold marriages). Poor education is also a significant challenge as most schools are in distant areas with poor infrastructure and a teacher-pupil ratio of 1:70. This has led to dropouts, and girls are primarily affected.

WHAT IS KUUMBA SMART VISION – ZAMBIA

I founded Kuumba Smart Vision - Zambia (KSV-Zed) 2021 to address the issue of women being excluded from the lapidary industry. The organization's primary objective is to empower women by providing them with the necessary skills and training to cut and polish gemstones and create job opportunities in the industry. This will help women achieve economic independence and lead to long-term sustainability.

KSV-Zed is also focused on promoting the value addition of gemstones within local communities in Zambia instead of exporting raw materials to other countries. This approach can create more sustainable jobs and a more stable local economy. KSV-Zed partners with mining companies like Kariba Minerals Limited to ensure that the gemstones are ethically sourced and that no child labor is involved.

KSV-Zed's approach to empowering women in the lapidary industry is designed to create long-term sustainability by promoting economic independence, ethical sourcing, and job creation within local communities. The organization aims to include more women in the industry and create more jobs. By providing skills and encouragement to women, KSV-Zed believes that they can help achieve the fifth Sustainable Development Goal, "Achieve gender equality and empower all women and girls," which is part of the United Nations' 2030 Agenda for Sustainable Development. This will help eliminate all forms of discrimination and violence against women and girls and ensure their full and effective participation in all areas of life.

KSV-Zed believes that our initiative will help the country generate revenue through taxes and job creation and create a sense of ownership, sustainability, women's inclusion, and better. We have signed a Memorandum of Understanding with the only government-run training center in gemstones, the Gemstone Lapidary and Processing Training Centre. The goal is to include more

women in the training programs and work closely with supervisors to promote hands-on student training. This agreement has allowed Kuumba Smart Vision (KSV) to enroll more women from mining towns in a two-year training program, with a ratio of 4:5 women to men. We have also introduced short training programs that can be completed within two weeks, such as stone identification, sorting, grading, and other courses for women who cannot leave their homes for a long time.

In addition, KSV has a working incubator near the school that provides women with a working space to further their skills. We have partnered with Kariba Minerals Limited, the largest amethyst mine in Africa, to provide a reduced price for amethyst, cutting, and polishing for their stores and to sell some of our products through their sales channels

The organization works permanently with eight women and two men in the incubator while other graduates are empowered in their villages. The organization produces over 80 pieces of cut and polished gemstones weekly. However, we are still looking for a market to sell, locally and internationally, and help improve the women's livelihoods in the communities.

WHAT WE HAVE DONE SO FAR:

We have signed a Memorandum of Understanding with the only government-run training center in gemstones, the Gemstone Lapidary and Processing Training Centre. The goal is to include more women in the training programs and work closely with supervisors to promote hands-on student training. This agreement has allowed Kuumba Smart Vision (KSV-Zed) to enroll more women from mining towns in a two-year training program, with a ratio of 4:5 women to men. We have also introduced short training programs that can be completed within two weeks, such as stone

identification, sorting, grading, and other courses for women who can only leave their homes for a short time.

In addition, KSV Zed has a working incubator near the school that provides women with a space to further their skills. We have partnered with Kariba Minerals Limited, the largest amethyst mine in Africa, to offer a reduced price for amethyst cutting and polishing for their stores and sell some of our products through their sales channels.

We have increased women's participation and created awareness of the importance of value addition in most mining villages. This has generated interest in most traditional leaders and made the enrollment process more manageable.

The organization has sold some products at an Etsy store in the United States and local international airports.

It has also made headway in acquiring some funding to buy the training center some equipment, as the institution has run out of training materials such as head gear and cutting laps, among others. This has increased the hands-on training of skills.

We have a variety of gemstones compared to when the organization started with Amethyst. Now, women can cut and polish gems ranging from emeralds to quartz (Precious to semi-precious) gemstones.

A traditional leader recently gifted the organization three hectares of land to establish a lapidary in his chieftdom. We believe this will be the organization's kick-off village project, which will provide the community with other local skills and expand their sources of income.

Challenges:

We have learned that we do not have local jewelers who can buy more than ten pieces, or in some cases, they prefer using synthetic crystals because they are easy to sell and affordable. It has been challenging to access the international market for the following reasons.

- Zambia is known for supplying rough materials without cutting and polishing them. All the cutting and polishing has been done in India and Thailand, which has made it hard for the organization to penetrate the international market.
- Furthermore, we have faced a challenge that aligns with the existing literature on the underrepresentation of women in industries such as lapidary. Studies have shown that women often face various barriers, including lack of access to training and skill-building opportunities, discrimination, and biases, which limit their participation in male-dominated industries. Additionally, societal and cultural norms also contribute to the underrepresentation of women in specific industries. Therefore, addressing these barriers and providing more support and opportunities for women to enter and succeed in the lapidary industry is crucial.
- Another challenge has been the procedure to export cut and polished gemstones; the country only has offices regulated to do that in the capital city, which takes time, at times two months (unless one uses corruption), which has made it difficult to assure international jewelers that they would receive their gemstones on time. This is slowly killing the industry, as FedEx is the only export company able to ship cut and polished gemstones. Shipping companies prefer exporting rough gemstones to cut and polished ones because rough gemstones are less valuable and more accessible to transport due to their smaller size and weight. Additionally, cut and polished gemstones are more fragile and require more

careful handling to prevent damage during transportation. Rough gemstones also have a higher profit margin for mining companies, as the value-added process of cutting and polishing is not done yet, so they can sell them at a lower price than cut and polished gemstones. Finally, shipping companies have more experience and expertise in rough gemstones, usually packed in secure containers and transported in bulk. Other companies believe that shipping companies can ship rough cargo without restriction or interference.

- Developing confidence and assuring women that their products are worth the market has been challenging. They do not see monetary returns from their sales, which makes them feel like it is a lost cause for them to compete with international cutters.

STAKEHOLDERS ANALYSIS

Stakeholder analysis: My stakeholders analysis will look at the opportunities and risks

Type of Stakeholder	Name of person/ org	Influence (How much influence do they have over the project? (low, medium, high)	Relationship to project	Incentives, motivation, risks	How to engage
Private	Women	High	Owners of the project	Motivation: Acquire skills, better livelihood, be part of an industry dominated by men Risk: sustainability- they fear we might leave like	Offer training in value addition skills in the gemstone industry.

				<p>most organizations.</p> <p>They fear the men will feel challenged.</p> <p>Is it worth their time?</p>	<p>Provide training materials for their skills to be improved.</p> <p>Sale the idea of cooperatives or incubators after they complete the training to sell their gemstones with added value.</p>
Private	Traditional leaders	High	On most of the land	<p>Eliminating natural resources, shifting values and norms, and allowing for economic freedom.in chiefdoms, allowing</p>	<p>Inclusion in the recruitment process.</p> <p>Provide short courses for both</p>

				women to participate in activities, with consideration for cultural values.	women and men in their chiefdoms.
Government	Ministry of mines and natural resources	High	Implement the Policies Regulation of exports and imports	The risk is that they fear that illegal trade will be promoted, so they need strategies. (This can be done by the partnership with the Ministry of Mines to decentralize the process to all provinces) Furthermore, they are selfish cartels (the cartels are both in government	They are promoting their work with international partners. Making them one of the giant partners Help in policy formulation.

				<p>and private) and scared that if the value is added locally, they will lose out. Corruption is another risk factor.</p> <p>Motivation—Jobs might be created to show that the ministry is promoting growth in the industry, and this could be used as a campaign manifesto.</p>	
Government	Zambia Revenue Authority	High	Regulate the export and import taxes	They are motivated to collect as much tax as possible from the gemstones, materials, and equipment we import.	The Ministry of Mines highlights how the tariffs affect the industry's growth.

				<p>Fear—They fear that reducing the import and export taxes will not allow them to make enough money (the tax on cut gemstones is higher than the tax on uncut gemstones). This has affected the industry because the duty on these is high.</p>	
Government	<p>Gemstone Processing and Lapidary Training Centre</p>	High	<p>Offer training to the women.</p> <p>The only institution</p>	<p>To have more women in their training program</p> <p>Training materials and equipment</p>	<p>I am signing a MoU to engage more women in the training.</p>

			with trained instructors	<p>The amount of support in training materials, finance, and international recognition</p> <p>The fear is what happens when their students or women graduate. What will happen if only one organization, Kuumba, is available in lapidary sales?</p>	Provide training materials and equipment for training.
Parastatal	Kariba Minerals Limited	High	Biggest Amethyst and other gemstones mine. Legal	<p>Have value added locally from their rough pieces.</p> <p>Will the work meet the expectations of their consumers?</p>	Provide samples of cut and polished pieces by the women.

			purchase of gemstones	The quality of work done so far. How much cheaper is it to have value-added locally?	Provide free training for their workers in sorting and classification Provide a market for the women at the Airport Shop The government agencies promote the idea of lapidaries.
Private	Kegam	High	Largest producer of emeralds	Motivation- Corporate Social Responsibility. It will force them to have their auctions locally. (CSR can be a powerful	Through the government. Submit a cost-benefit analysis with them.

				<p>tool for motivating local auctions by building brand image and relationships with local communities and creating a sense of shared values and purpose.</p> <p>Risk – lose out on revenue if auctioned locally.</p>	<p>Please provide them with facets and other products that appeal to them for the lower grade and evidence that women can add value.</p> <p>Provide free training for their workers in sorting and classification.</p>
Private	Jewelers		End users	<p>Have cut and polished gems acquired locally.</p> <p>Cheaper</p>	<p>Sell finished products at a reasonable price.</p>

				<p>The fear is that they feel the local women cannot cut as well as the others and fear getting low quality since most women are from rural areas, some without high school qualifications</p> <p>Having to acquire locally produced gems with less taxes and risks of losing them when shipping</p>	Partnership with some jewelers and help sell the complete pieces.
Equipment and Material suppliers	Jewels and tools	Medium	Supply equipment and materials such as cutting laps,	Motivation: Making a profit.	Find one good and reliable supplier and create a relationship

			polishing laps, buffs, and faceting machines among others	Fear: liability on their exported goods	by buying from them regularly.
Funders	IEEE Smart Village/ individual investors while looking for more		Provide startup funds	To see that the women are empowered and the project can run for itself The level of impact of its meeting.	Write proposals in line with their three pillars Provide an assessment of the project. Report on the expenditure with photos and pictures.

Sublet—I believe they are also stakeholders in a project because they are critical to its success or failure.

Employee	KSV staff	Project leads	<p>To see that the organization makes sales</p> <p>The impact that would be made for the women</p> <p>How successful this venture will be?</p> <p>Will they be able to maintain their jobs?</p> <p>Government policies change for the better or worse.</p> <p>Being the first women incentive, will it be impactful?</p>	<p>Recruitment of passionate people.</p> <p>I am volunteering with certification at the end.</p> <p>Provide incentives</p>
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NEEDS ASSESSMENT

My needs assessment focused on the need for women to be included in the gemstone value addition chain and create a market around it. I did assume that once the women get the training, it will motivate and increase the supply of cut and polished gems, thereby giving them something to make a livelihood through the sales of value-added gemstones as the price value is higher. The assumptions were rounded through knowledge from secondary and primary sources. It was assumed that the market was already present, and we quickly sold their lost gems.

Here are some of the questions that were asked, but more questions to probe and investigate further will be asked in the form of a questionnaire during our implementation phase to continue better understanding the state of affairs in the gemstone industry.

The tools I planned to use were:

1. Interviews through closed committee.
2. NGO reports
3. Participatory observation

Questions

- What is your experience in the gemstone industry?
- What knowledge do you have in the value addition process?
- Who are the leading players in the industry?
- Why is the market rare locally?
- What have been the challenges with cut and polished gems?
- How is the trading environment currently in the country?
- What are the policies around the lapidary industry in Zambia?

- What are the current trends in the lapidary industry?
- Do you have any suggestions on what can be done to improve?

Interviews:

Using a population of 20, 13 men and seven women have been in the industry locally and internationally. Data was collected using a semi-structured interview guide on income-generating strategies. We used semi-structured questions because the population helped us have follow-up questions and gain more understanding of the sales end of the business. Most participants could communicate in English; a few would not have an interpreter in the local language.

Sample questions asked, but not limited to;

- Are you able to read and write? YES/ NO
- Are you able to count? YES/ NO
- What skills do you have?

Two Gemstone Lapidary and Processing Training Center instructors helped collect the data. We collected the data in a week because it involved scheduled Zoom meetings, and most participants were from outside the town and country.

More assessments will continue to be carried out along the way

NGO reports

This information will help me to ascertain the engagements of different NGOs/ gemstone associations such as the Jewelers Association of Zambia, Small Scale Miners Association, and Women in Mining, among others, and to learn from them the sense of community members that I may have ignored and to also learn from their strategies they used to penetrate the market and their impact in the community and how the members view it.

Participatory observation.

I participated in an activity with my team to observe a gathering while speaking to the cutters and polishers in a less formal way than a survey and an engagement with key leaders in the market suppliers of rough gemstone, the owners of lapidaries.

DATA ANALYSIS

I used Braun and Clarke's 2006 thematic analysis system to interpret qualitative data. This method enabled me to identify trends and patterns in the data, which offers several benefits. It allows me to discover new perspectives, similarities, and differences among the participants. Moreover, it provides a framework that can be adjusted to suit the research aims, questions, and data sources. This method also facilitates communication and presentation of findings by organizing data into meaningful themes that can be illustrated with quotes or examples.

The analysis produced four themes.

The gemstone market favors more rough buyers than cut and polished.

During a discussion, Lamack, a participant in the industry for over 25 years, shared that the significant challenge local people face in the gemstone industry is that they prefer to sell rough gems instead of finished products. This is because rough gems are easier to sell, clear, and cheaper. However, exporting cut and polished gems takes time and effort. It can take over a month to clear these products for export due to various requirements by the Ministry of Mines, the Gemological Department, and the Zambian Revenue Authority. Additionally, the process can only be done in the capital city while most mines are situated in the Copperbelt province, which poses additional logistical challenges.

Mrs Mundia added, "It is truly disheartening that the auctions for our precious gemstones, such as emeralds, are not held locally. How can we expect locals to be motivated to cut and polish these stones when they cannot easily access them in their community? It is puzzling that we have allowed this to go on for so long, as it encourages the exportation of raw materials rather than the creation of added value."

Lack of knowledge and interest in the lapidary industry

Kapeta, a participant, mentions that one of the significant challenges facing the lapidary industry is the need for more training and knowledge. Most people in the industry need more skills and expertise to add value to the gemstones, resulting in low-quality products. The lapidary industry in Zambia requires specialized skills, such as cutting, polishing, and shaping stones, which are not readily available. As a result, most lapidaries rely on outdated techniques, which result in low-quality finished products. The problem is that we only have one Gemstone Lapidary and Processing Training Center.

The lack of training and knowledge in the lapidary industry also contributes to the limited diversity of products. Most lapidaries focus on a few popular gemstones, such as emeralds and diamonds, while neglecting others. This lack of diversity limits the industry's potential to grow and attract new markets.

Furthermore, the lack of training and knowledge in the lapidary industry makes it difficult for lapidaries to compete in the international market. The lapidary industry requires advanced technology and equipment to produce high-quality products that meet international standards. However, most lapidaries need access to such equipment, making it difficult to produce high-quality products that can compete in the global market.

Furthermore, there needs to be more women in the lapidary industry in Zambia. This is a significant issue as it limits the participation of women in the value addition chain and the market around it. Through my research, I found that women face several barriers to entry, including limited access to training and financial resources, as well as cultural and societal norms. However, I believe that by providing women with the necessary skills and resources, we can create more opportunities for them to participate in the industry and contribute to the economic development of Zambia.

Lack of local jewelers and use of synthetic gemstones

My research shows that local jewelers may prefer synthetic gemstones for a few reasons. Firstly, synthetic gemstones are usually less expensive than natural ones, making them a more affordable option for consumers who may not want to spend much money on jewelry.

However, it is essential to note that not all local jewelers may prefer synthetic gemstones, and some may still choose to use natural ones. The decision to use one type of gemstone over another may depend on various factors, including cost, availability, and personal preference.

One of the themes that emerged from the needs assessment was the need for more well-established jewelers in Zambia. This means the country has limited demand for cut and polished gemstones. As a result, the gemstone industry relies heavily on exports for revenue. This puts pressure on the industry to produce high-quality products that meet international standards, which can be challenging for small-scale miners and lapidaries. The need for established jewelers also means women have limited opportunities to enter the industry and make a livelihood from value-added gemstones. Addressing this issue will require collaboration between industry stakeholders and the government to create an enabling environment for the growth of the gemstone value chain within Zambia.

Lack of policies supporting the lapidary industry

Another theme from the data analysis is the need for more policies to support the lapidary industry in Zambia. Participants in the study mentioned a need for more government support for the industry, making it difficult for small-scale miners and lapidaries to thrive. They also noted that a clear industry policy framework needs to be established, making planning and investing in the sector challenging. According to Mr. Phiri, "The government needs to put policies that support the lapidary industry, such as tax incentives, access to capital, and training programs. This will help to create a more enabling environment for the industry to grow and create jobs."

Discussion

Based on the needs assessment, it is clear that the gemstone industry faces significant challenges, particularly in Zambia. One of the major issues is the need for more women's inclusion in the value addition chain and the market around it. This problem needs to be addressed, and it is encouraging that the assessment has identified this as a priority area.

Data was effectively collected using various tools, such as interviews, NGO reports, focus group discussions, and participatory observation. The data analysis produced four themes: the market's preference for rough gems over cut and polished gems, the lack of knowledge and interest in the lapidary industry, the challenges faced in the trading environment, and the need for policy changes.

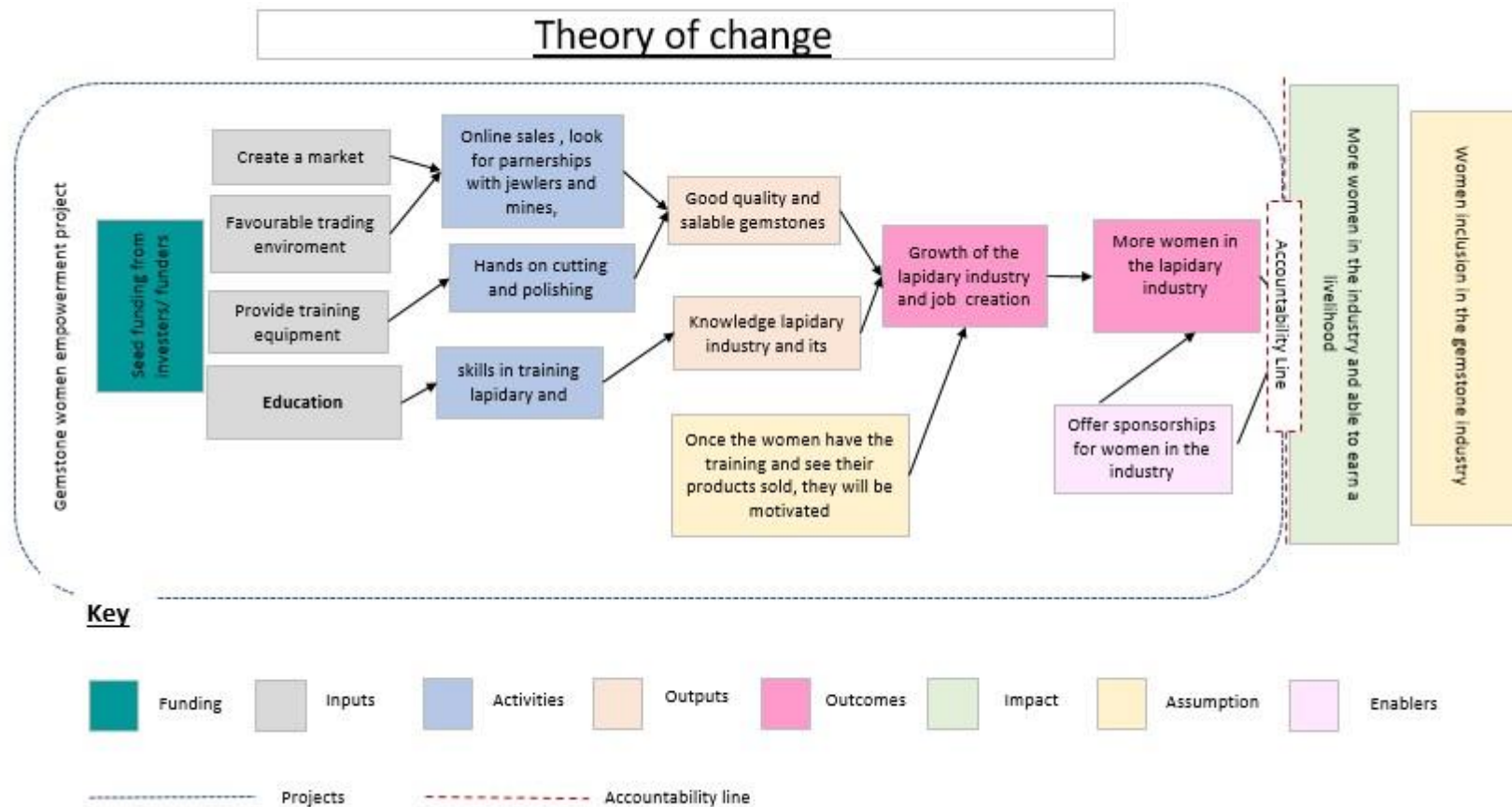
More training and education are needed in the lapidary industry to increase the supply of cut and polished gems, which will benefit both the industry and the women involved. Additionally, policy changes are needed to make it easier for locals to access the gemstones and create added value in the community.

Based on the needs assessment, it was found that there is a significant need to include more women in the gemstone value addition chain and the market around it. However, the industry faces several challenges, including a lack of knowledge and interest in the lapidary industry and the gemstone market favoring more rough buyers than cut and polished products. The lack of training and knowledge is also a significant challenge facing the lapidary industry. The assessment revealed that once women get the necessary training, it will motivate and increase the supply of cut and polished gems, thereby giving them something to make a livelihood through the sales of value-added gemstones as the price value is higher.

It is essential to provide proper training and education to lapidaries to improve the quality of their products and promote industry diversity. This can be achieved through partnerships with educational institutions and government support to provide specialized training and access to modern technology and equipment.

Overall, the needs assessment and the data collected provide valuable insights into the challenges facing the gemstone industry in Zambia. It is encouraging to see that efforts are being made to address these challenges, and with continued focus and support, positive change can be achieved.

THEORY OF CHANGE



Narration

Currently, the gemstone industry in the country has very few women involved in value addition, with less than two percent participating due to a lack of training. Women can gain valuable skills to improve their lives by providing skills training as an intervention. However, several activities must take place to achieve this desired outcome, including offering long and short courses in the lapidary industry, providing financial literacy education, and creating a market chain to motivate women by showing them that added-value gemstones can be bought and appreciated.

Creating a market for cut and polished gemstones can be profitable. There is a growing demand for unique and high-quality gemstones, and by establishing a market for cut and polished gemstones, you can tap into this demand and offer customers various options. One way to create a market is by setting up an online store or website where customers can browse and purchase gemstones. You can also attend trade shows and exhibitions to showcase your products and network with potential clients. Another approach is establishing partnerships with jewelry designers and retailers to supply them with your gemstones. You can build a loyal customer base by offering competitive prices, exceptional quality, and excellent customer service and establish a successful business in the cut and polished gemstone market.

Through these activities, women can earn a livelihood by working in cooperatives or incubators, gain knowledge to participate in decision-making, and promote further female participation in the industry. Assumptions include the expectation that these women will gain sustainable skills, reduce dependency, increase program interest, and change attitudes and norms around the industry.

If the program does not have enough funding to acquire equipment for practical skill improvement, alternative ways of earning money may be necessary, such as having a store for women to sell products. Additionally, while this program is needed in rural mining towns, courses must be accessible to married women who travel to the only Gemstone Training Institution.

PROJECT DESCRIPTION AND IMPLEMENTATION

A marketing system for Kuumba Smart Vision is crucial to ensuring the organization's sustainability and growth. Despite the positive impact that the organization has had on the lives of women in rural communities through its involvement in the gemstone industry, it is essential to ensure that the products it produces reach the right markets and generate sufficient revenue for the organization and its members.

Without a marketing system, Kuumba Smart Vision may struggle to sell its products and compete with other players in the industry. A marketing system would help the organization identify potential markets, understand customers' needs and preferences, and develop effective strategies to promote its products.

Moreover, a marketing system would enable Kuumba Smart Vision to establish brand recognition and reputation, which is essential in today's competitive marketplace. By effectively communicating its unique value proposition and the social impact of its products, the organization can differentiate itself from its competitors and build a loyal customer base.

Furthermore, a marketing system would provide Kuumba Smart Vision with valuable insights into the gemstone industry, including emerging trends, consumer behavior, and market dynamics. This information would enable the organization to make informed decisions about product development, pricing, and distribution, thus ensuring its long-term success.

In summary, a marketing system is critical for the sustainability and growth of Kuumba Smart Vision. It would enable the organization to reach new markets, establish brand recognition, and gain valuable insights into the industry. By developing effective marketing strategies, the

organization can generate sufficient revenue to support its mission of empowering women in rural communities through the gemstone industry.

Goal/objectives

- I. Increase the number of women involved in gemstone value addition of 5:4 men to women by the end of the year.
- II. Increase women's earnings in gemstone value addition by 40%.
- III. Increase the knowledge and lapidary and processing industry for women who can cut and polish quality and salable gemstones

Marketing plan objectives:

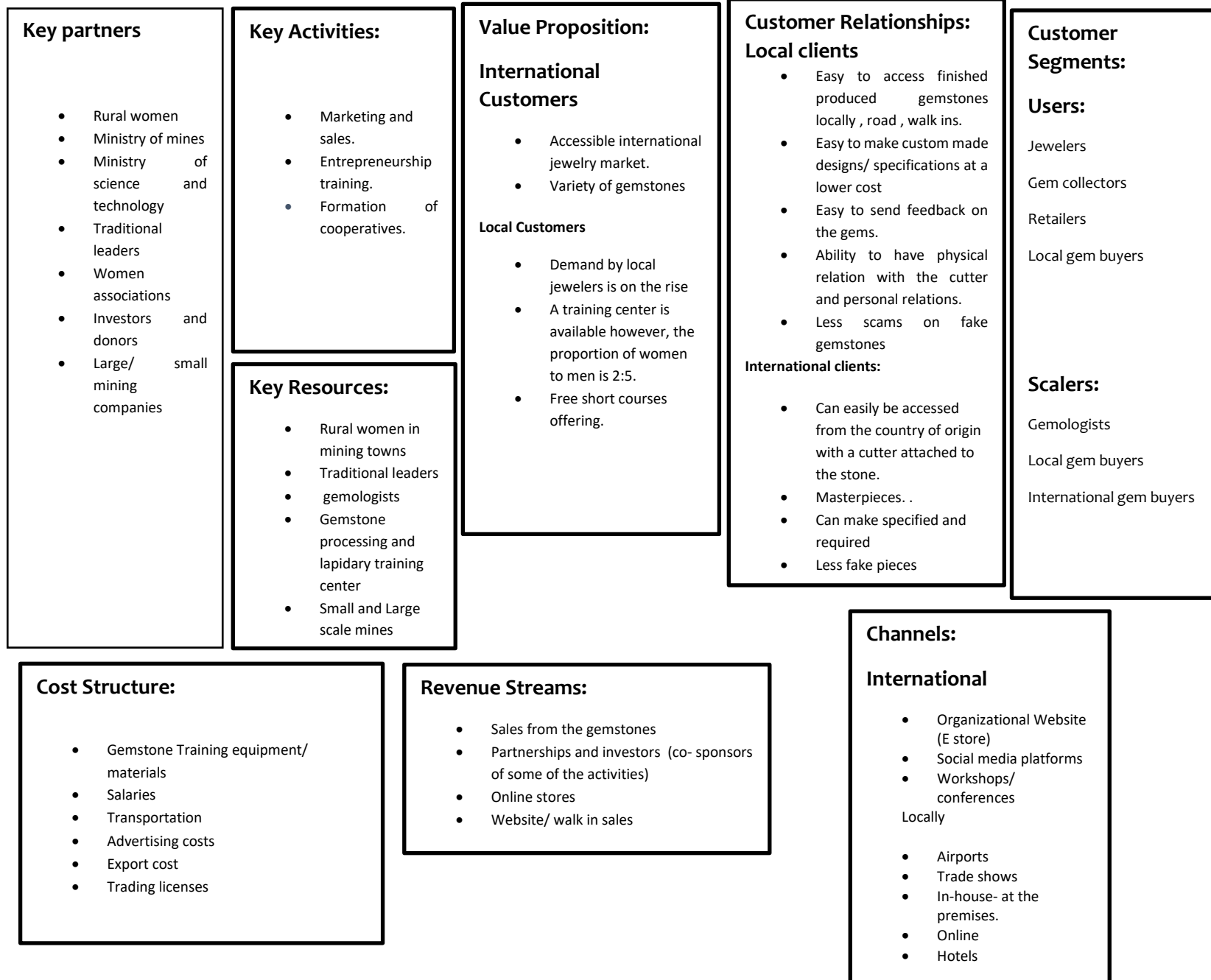
- Reimagine the KSV brand identity to elevate awareness of ethical practices in the fair trade industry, aiming for a 70% increase in brand recognition within 18 months.
- Expand KSV's presence in the US jewelry market by targeting affluent consumers interested in ethically sourced jewelry, utilizing new sales channels, and tracking market share and sales data over the next 3 years.
- Foster partnerships with local jewelry companies like Lu Sterling and tourist management through partnerships with safari operators, restaurants, etc, to diversify product offerings, penetrate new markets, and drive growth for KSV.

Several players are needed for this project to have a more significant impact. For the Kuumba Zed project, the primary focus at this stage of operation is increasing sales. The primary stakeholders are the women, mining companies, government (Gemstone Lapidary and Training Centre, Zambia

Revenue Authority, Ministry of Mines), traditional leaders and community leaders, and jewelers and jewelry store chains locally and internationally.

The players mentioned in the Kuumba Zed project are crucial for increasing sales for various reasons. The women play a vital role in mining and processing the gemstones used in the jewelry, contributing to the quality and uniqueness of the products. Mining companies are responsible for extracting and supplying gemstones, essential for the project's success. Through the Gemstone Lapidary and Training Centre, Zambia Revenue Authority, and Ministry of Mines, the government ensures that the project operates within the legal framework and provides support and training to stakeholders. Traditional and community leaders are essential in creating a conducive environment for the project and ensuring that the local communities benefit. Finally, the jewelry store chains, both locally and internationally, are responsible for the distribution and sale of the finished products, making them an essential player in increasing sales. Overall, the collective efforts of these stakeholders are critical in ensuring the success and impact of the Kuumba Zed project.

BUSINESS MODEL CANVAS – KUUMBA SMART VISION



	PROJECT SUMMARY	INDICATORS	MEANS OF VERIFICATION	RISKS / ASSUMPTIONS
Goal	To increase revenue by promoting and selling value-added gemstones.	The activities, outcomes, and inputs have at least 70 percent achieved in the first year.	Through sales and reports	Inclusion and empowered women with a better livelihood.
Outcomes	<p>1. Increased women's knowledge in lapidary and processing skills.</p> <p>Able to know the cuts that sell and the quality</p>	<p>1. Women can participate in one of the processes without help from the instructors after the first training.</p>	1. Check books list	<p>The assumption around the increased knowledge, among other things, is that they will automatically make income once they gain these skills.</p> <p>However, there are</p>

	<p>2. Increased sales and profits.</p> <p>3. More women were encouraged to join the</p>	<p>2. Increase in sales on a weekly and monthly basis.</p> <p>Number of carats being sold each month.</p>	<p>2. Through sales books</p>	<p>risks that the training may need to be more or that the women are not interested and are just doing this to think they will make money.</p>
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	industry, and more cutters and polishers	3. How many women are employed in lapidaries or working for themselves or as a cooperative?	3. Through employment records and contracts signed.	
Outputs	<p>1. Women will have skills improved. (Their cutting and polishing pace will increase after training on machines.</p> <p>2. Increased women's participation in</p>	<p>1. How many pieces of gemstones can one cut and polish daily?</p> <p>2. What is the ratio of women and men to the current 2:5</p>	<p>1. Records book of entries of cut and polished gemstones</p> <p>2. The enrolment records.</p>	<p>If they improve their skills and can sell their pieces of gemstones, they will be encouraged and motivated. This will help them have hope for the training and encourage other women from their</p>

	<p>lapidary and processing skills.</p> <p>3. Women have sales and jewelers connected to supply their products.</p> <p>4. Women will have better relationships</p>	<p>3. How many sales can women make to sell (what is the quality and quantity being preferred)? The number of jewelers returns as well as new ones. This will be every month.</p> <p>4. How many supply mines have MoUs with the</p>	<p>3. Sales records</p> <p>4. Signed agreements</p>	<p>villages to take part in the program.</p>
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	with the legit supply chains (Mines)	organization after a year		
Activities	1. Train short courses offered. (This is for married women or those with other commitments that would not permit them to attend the training center.)	1. How many participants are enrolled in each training program?	1. Enrolment records or participation records	The risk is if enrolment goes differently than planned. For married people, their husbands may forbid them from participating in the training. In other cases, traditional leaders may not buy into having

	<p>2. Marketing channels (Set up a market for the women to sell finished products. This market can be local or international. (Examples include Stores, online stores, storytelling, and social media use.)</p> <p>3. Set up an advisory committee in the industry comprising</p>	<p>2. The number of market channels present making sales. Which gems are making more sales?</p> <p>3. How many policies have been</p>	<p>2. Revenue bookkeeping.</p> <p>3. The number of meetings and proposals approved</p>	<p>some of their women enrolled.</p> <p>Assumptions—This will increase women's participation and create awareness of the need for women in the industry.</p>
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	<p>the government, jewelers, mining companies, women, chiefs, and NGOs</p> <p>4. Sign MoUs with gemstone mining organizations such as Kariba Minerals Limited (Amethyst/ Citrine mine), Kegam, and other small local mines</p>	<p>submitted and approved by the government</p> <p>4. The number of agreements signed in a year.</p>	<p>4. Copy of signed MoUs that are functional.</p>	
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SUSTAINABILITY

Community Sustainable plan

Activity	By whom	How	When
Enroll more women from mining communities.	The instructors from the training center and traditional leaders.	<ul style="list-style-type: none"> ➤ Traditional meetings are held every first Monday of the month. ➤ Have a presentation of what and why the program is essential. 	Every last quarter of the year.
Identify families involved in gem mining.	Traditional leaders and their subordinates (they have a register of every person participating in any activity on their land)	<ul style="list-style-type: none"> ➤ Using the traditional register. ➤ The District Council land registration records. 	Continuous process

	District council officers		
Develop a program for women unable to attend the two-year training program for various reasons, such as family commitment.	<p>The training center and Kuumba Smart Vision instructors.</p> <p>Community women.</p> <p>Community leaders.</p> <p>Families involved in gem mining</p> <p>Associations that work in particular communities.</p>	<p>Research the best practices that would work for each community involved (qualitative and quantitative, mixed methods and observations)</p> <p>Recruit local people to provide more insight into the practices involved in the process.</p> <p>Using the already existing curriculum being used at the training center and other gemology materials</p>	Ongoing

Organizational sustainability

Activity	Who	How	When
Recruit more women instructors from the women being currently trained.	Human resources department under Kuumba Smart Vision	Select from those that have topped the class. These will undergo further training in communication skills as well as community engagement courses	Every year.
Get affiliated with Gemology institutions such as the Gemological Institute of Africa, America, Australia, and Britain.	Kuumba Smart Vision, with its cooperating partners, will help facilitate this.	Acquiring gemologist certification for Kuumba Smart Zambia through the lead-down procedures from the respective institutions	Ongoing process
Partner with other women's empowerment	Kuumba Smart Vision	Identity, approach and find common grounds of partnering.	Ongoing process

organizations or interested parties			
We should have a committee of traditional leaders, women in mining, the Zambia Chamber of Commerce, and the government.	Kuumba Smart Vision will facilitate this.	Each village will select a representative to be part of the committee. Have a letter of invitation sent to the different institutions.	Ongoing

Financial Sustainability Plan

Activity	Who	How	When
Set up Village lapidaries in each of the mining villages for the women to operate from	Grants Kuumba Smart Vision Traditional Leaders	<ul style="list-style-type: none"> ➤ Grant applications to other organizations. ➤ Through sales from the current lapidary. <p>The profits are to be reinvested in more lapidaries</p>	Ongoing process
Suppliers of rough pieces to reduce the price	Mining companies and Kuumba Smart Vision Zambia	<ul style="list-style-type: none"> ➤ Memorandums of Understanding have been signed with various mining organizations, and they are offering lower prices for rough/raw gemstones to the organization. For example, the MoU we currently have with Kariba Minerals Limited is that they offer gems at 50 	Continuous process

		percent out of corporate social responsibility.	
Have more supply gem stores.	Kuumba Smart Vision Marketing department	<ul style="list-style-type: none"> ➤ Website design telling our story and sales point. ➤ Online sales such as Etsy ➤ Advertising via our social media platforms. ➤ Lobby to big jewelry stores to be their suppliers of the polished gems 	Continuous process
Cut and Polish gems for other small local clients	Kuumba Smart Vision	<ul style="list-style-type: none"> ➤ Have clients that already have the gems and want them to be added value 	Started January 2024
Set some of the gems into sample jewelry	KSV	<ul style="list-style-type: none"> ➤ Invest in some equipment to make some jewelry for quick sales and partner with other jewelers. 	June 2024

Tax exemption	Zambia Revenue Authority	➤ Apply for a tax exemption certificate (provide the Authority with documentation of the organization's imports, exports, and taxes). This will help reduce costs and lead to some form of financial sustainability.	The process started in November 2023.
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Monitoring, Evaluation, and Learning Plan for Women in Gemstone Value Addition using Kuumba Smart Vision Sales

Introduction

This Monitoring, Evaluation, and Learning (MEL) Plan aims to ensure that Kuumba Smart Vision's sales to women in the gemstone value addition industry in Zambia are effectively monitored, evaluated, and learned from. The MEL Plan will provide a framework for tracking progress, identifying successes and challenges, and informing decision-making to improve the program's effectiveness.

Objectives

The MEL Plan aims to achieve the following objectives:

1. Monitor the sales of Kuumba Smart Vision to women in the gemstone value addition industry in Zambia.
2. Evaluate the effectiveness of the program in empowering women in the industry and bridging the gender gap in value addition.
3. Learn from the program's successes and challenges and use the findings to improve the program's implementation and impact.

MEL Framework

Monitoring:

Monitoring will be conducted monthly for 12 months, from March 2024 to February 2025. The following data will be collected:

- Number of Kuumba Smart Vision sales to women in the gemstone value addition industry
- Sales revenue generated from women in the industry
- Number of women trained in gemstone value addition using Kuumba Smart Vision
- Number of cooperatives or incubators formed by women in the industry
- Number of women who have acquired sustainable livelihoods in the industry

Data will be collected regularly and analyzed to track progress and identify any issues that need to be addressed.

Evaluation:

The program's effectiveness will be evaluated at the end of the 24-month monitoring period; the following methods will be used: This will be an internal evaluation by the Kuumba M&E team.

- Impact assessment: A survey will assess the program's impact on women in the gemstone value addition industry. The survey will collect data on changes in income, employment, and economic empowerment of women in the industry.

Outcome evaluation: An evaluation will assess the program's outcomes, including the number of women trained, cooperatives formed, and sustainable livelihoods created.

- Process evaluation: An evaluation will be conducted to assess the program's implementation process and identify areas for improvement.

c) Learning:

The learning component of the MEL Plan will involve analyzing the data collected through monitoring and evaluation to identify successes and challenges and inform decision-making to improve the program's implementation and impact. The following activities will be undertaken:

- Regularly review the program's progress and identify any issues that must be addressed.
- Sharing of findings with stakeholders to inform decision-making.
- Identification of best practices and lessons learned to guide future program implementation.

Data Collection and Analysis

Data will be collected using various methods, including surveys, interviews, and focus group discussions. It will then be analyzed using both qualitative and quantitative methods to provide a comprehensive understanding of the program's impact and effectiveness.

Reporting and Communication

The MEL Plan will include regular reporting to stakeholders, including program staff, donors, and beneficiaries. Reports will be prepared to provide updates on progress, findings from evaluations, and recommendations for improving the program's implementation and impact. The reports will be shared through various channels, including email, meetings, and workshops.

Conclusion

The MEL Plan provides a framework for monitoring, evaluating, and learning from the sales of Kuumba Smart Vision to women in the gemstone value-addition industry in Zambia. The plan will ensure that the program's effectiveness is regularly assessed and that findings are used to improve the program's implementation and impact. The MEL Plan will also provide a basis for reporting to stakeholders and communicating the program's progress and impact.

Timeline

March-April 2024: Conduct market research to identify potential customers and their needs and preferences. Develop a sales strategy based on the research findings.

May- June 2024: Develop and launch a social media marketing campaign to increase brand awareness and promote products.

July-August 2024: Attend and participate in relevant trade shows and exhibitions to showcase products and connect with potential customers.

September-October 2024: Offer promotional discounts and bundle deals to incentivize customers to purchase products.

November- December 2024: Expand distribution channels by partnering with local retailers and wholesalers.

January- February (2025). Evaluate the effectiveness of the sales strategy and make necessary adjustments and improvements.

Capacity

To successfully achieve the sales and marketing objectives of Kuumba Smart Vision, several capacities and resources are needed.

Firstly, we are expanding and need a well-trained and motivated sales team to effectively communicate the product's value proposition to potential customers. The sales team should have a strong understanding of the product's features and benefits and be able to address any questions or concerns that potential customers may have.

Secondly, there is a need for a robust marketing strategy that can effectively reach the target audience and generate demand for the product. This involves developing a clear brand identity, identifying the most effective marketing channels (e.g., social media, trade shows, etc.), and creating compelling marketing materials such as brochures, videos, and case studies.

Thirdly, a strong distribution network is necessary to deliver the product to customers efficiently. This involves identifying reliable distributors and logistics partners who can ensure timely and cost-effective product delivery.

Fourthly, effective customer service and support mechanisms are essential to customer satisfaction and loyalty. This involves providing timely and responsive customer support, promptly addressing their concerns and issues, and continuously improving the product based on customer feedback.

Lastly, it is crucial to have a robust data analytics and tracking system that can provide insights into customer behavior, sales trends, and marketing effectiveness. This involves collecting and analyzing data on customer demographics, sales volumes, conversion rates, and other key performance indicators to inform decision-making and optimize sales and marketing strategies.

Budget

Item	Purpose	Amount (\$)
Website design and maintenance	For online sales, visibility, and advertising	3000
Marketing /sales manager (12 months)	Someone fully dedicated to marketing and sales.	6000
Jewelry tools such as pliers, wire cutters, beading, jeweler saw, and bench, among others	To set some stones into sample jewelry for easy sales	3500
Online store fees (12 months)	Facebook, Etsy, LinkedIn	2400
Phones (10)	The women will use these to share their stories and showcase how they process the stones. (videos and photos)	2000
Laptops (4)	To be used for creating designs	2800
Packaging/branding	Better packaging with the logo and little card from Kuumba	2000
Internet (12)	Monthly bundles	600

MEL	Yearly	1000
Contingency cost	In cases of things left out	2000
TOTAL		25, 300

Operational budget

Activity	Description	Cost (per month)
Salaries	Women salaries. The women each get a minimum of 80 dollars per month. Then they get a commission of 5% per piece sold .	\$1500

Staff	Currently, the staff have been volunteering. but if they were paid, it would be	\$1000
Supplies	Additional materials used for the cutting and polishing process, such as cutting laps, polishing wax, etc	\$1000
Material	<p>The materials differ in pricing usually (per gram)</p> <p>1. Aquamarine – 300 per gram</p> <p>2. Emerald – 1500 per gram</p> <p>3. Amethyst – 50 per gram</p> <p>4. Garnets - 20 per gram</p> <p>5. Other stones 20-30 per gram</p>	<p>\$1500</p> <p>\$9000</p> <p>\$500</p> <p>\$300</p> <p>\$600</p>
Development of land	Land that has been provided by one of the traditional leaders that needs	\$7000

	development for a permanent functioning lapidary	
Total		22,900

Kuumba is dedicated to empowering women and supporting their creative endeavours. While we are grateful for any grants or donations we may receive to help fund our operations, we also believe in becoming self-sustaining. That is why we are working hard to ensure that the profits from the pieces we sell will cover a significant portion of our budget.

We believe that generating our revenue allows us to maintain our independence and continue to pursue our mission without relying too heavily on outside sources. However, we also understand the importance of seeking help, especially regarding essential resources such as laptops, phones, and website designs.

Therefore, we will actively seek donations and grants from women's empowerment-supporting organizations to help us acquire the equipment and tools we need to continue our work. We believe that with their support, we can achieve our goals more quickly and effectively.

In summary, while we appreciate any help we may receive, Kuumba is committed to being as self-sufficient as possible. We will continue to work hard to generate our revenue and pursue our mission of empowering women through creativity.

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APPENDIX

AN INTERVIEW GUIDE TOOL TO ASSESS THE MARKET ENVIRONMENT IN THE GEMSTONE VALUE ADDITION INDUSTRY IN ZAMBIA

Thank you for agreeing to participate in this survey. Your participation is entirely voluntary and will help us be
community's needs. We aim to work with you and other stakeholders to bring positive change.

SIGNATURE:

DATE:

THANK YOU VERY MUCH.

SECTION 1: DEMOGRAPHIC QUESTIONS.

- a) How old are you?
- b) Where exactly do you live?
- c.) How many years of experience do you have?
- d) Is it your main source of income?

SECTION 2: EDUCATIONAL AND CAREER QUESTIONS

- a) Are you able to read and write? YES/ NO
- b) Are you able to count? YES/ NO
- c) What skills do you have?
- d) Is there anything you want to learn to help you in your career?

SECTION 3: GEMSTONE INDUSTRY QUESTIONS

- a) What is your experience in the gemstone industry?
- b) What knowledge do you have in the value addition process?
- c) Who are the leading players in the industry?
- d) How is the market locally and internationally?
- e) How is the trading environment currently in the country?
- f) What have been the challenges with cut and polished gems?
- g) What are the policies regarding the lapidary industry in Zambia?
- h) What are the current trends in the lapidary industry?
- i) What are some of the NGOs offering services in the industry?
- j) If you were to be helped or given support, what would that be?
- k) Do you have anything you would like to add?