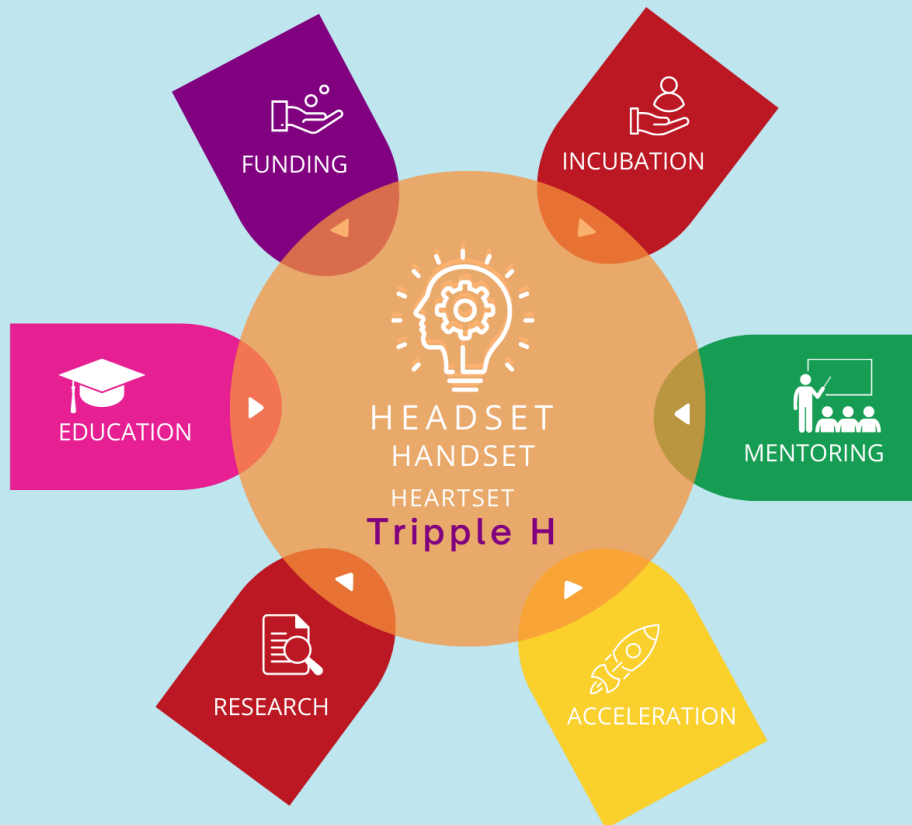




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Glass to Glory: Crafting Sustainability and Livelihoods in Murang'a County, Kenya

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Abstract

Cyrus, a 38-year-old resident of Murang'a County, Kenya, has embarked on an entrepreneurial journey with Glisten Glasshouse, driven by his passion for environmental sustainability and community development. Focused on addressing the health risks posed by discarded wine bottles in Moya, Cyrus initiated the venture in April, specializing in glass recycling. Mobilizing local villagers, he engaged them in collecting and decorating the bottles, transforming waste into income. Officially registered in May or June, Glisten Glasshouse shifted from a home-based operation to a strategically located shop along the highway to enhance visibility and accessibility. The pivotal moment in Cyrus's journey occurred with the innovation of a cost-effective glass bottle-cutting tool, leading to its successful patenting. Expanding beyond recycling, training programs were introduced, emphasizing glass cutting, decorating, and branding to empower local communities in contributing to environmental sustainability. Cyrus's motivation stems from the adverse impact of idle glass bottles on the environment and farmworkers' safety, propelling his goal to convert waste into a resource, fostering community income generation. Glisten Glasshouse adds value by not only eliminating glass waste but also creating marketable products such as drinking glasses, vases, and candle jars. The venture serves as a means of empowerment, particularly for women and those with disabilities, providing them with opportunities for livelihood through glass crafting. Despite protective measures for glass cutting, challenges include the slow uptake of training programs and financial risks associated with personal investment. The difficulty in reaching the target audience compounds the existing concerns. Cyrus envisions expanding operations by acquiring a glass grinding mill and evolving Glisten Glasshouse into a comprehensive community training center. Beyond glass cutting, his future plans include teaching various crafts to create a sustainable model replicable in other communities, fostering economic development and environmental responsibility.

Key Words: *environmental sustainability, environmental responsibility, patenting, community empowerment*

Background

Cyrus, a 38 years old resident of Muranga County, Kenya is passionate about environmental sustainability, community work and community development. Cyrus started a business for recycling glass, specifically wine portals that have been a big societal problem, especially in Muranga County where empty bottles are discarded and thrown into the fields and farms. The glass bottles break and become a health hazard for farm workers in the fields who often work barefoot with no protective gloves as well.

Glisten Glasshouse, established in April, 2023 at a family backyard, operated as a non-registered entity for two months. In June 2023, the registered company opened a shop in a trading center where people

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can easily locate the business. The venture mobilizes people in the villages to collect empty bottles and trains on how to decorate and brand glass bottles. The trainees are sent back to the community where they engage in collection of glass bottles as a source of income while contributing to environmental sustainability by cleaning garbage that is caused by wine bottles.

As an innovative capacity building approach, Cyrus trains physically and for free through Social media platforms namely; Tik Tok and You Tube channels. For Physical trainings in his premises, trainees pay Kshs. 15,000 which is inclusive of an innovative glass cutting board already patented at the Kenya Industrial Properties Institute (KIPI). The innovation was a result of a realization that the trainees had a challenge in cutting bottles as they did not have the tools and still, they did not know how to cut it. Glisten class just had to come up with a tool that helps the trainees to cut the bottles collected.

Cyrus is still looking for a partner as he has been working alone. He is yet to identify someone passionate enough to join in trainee mobilization, trainee enrollment and actual trainings on bottle cutting, decoration using stencils, cutting with the plotter machine, designing the stencils with the computer and then spray-painting the bottle to give it a nice finish. As the trainees get back to their villages, follow up and hand holding support is required to ensure sustainability.

In the history of Glisten Glass, Cyrus began on a very difficult note as he had to start from scratch and did not know how to cut the glass yet he had no working capital to acquire a glass cutting equipment from China. Even if he had the funds, another challenge was how to import the equipment and incase it broke down, he had to be importing parts from China. Curious on why we have to rely on China for such a small thing, Cyrus thought of innovating a bottle cutting machine with available spare parts and a solution was found. With the cutting machine in place backed by a preliminary patent certificate, another milestone came when Cyrus discovered ways to decorate the bottles.

Cyrus, driven by a profound passion for environmental sustainability engages idle youth in the art of glass crafting and provides them with a meaningful craft that not only consumes the discarded bottles but also offers them a source of income. The value addition is multifaceted: the removal of glass waste from farms ensures soil fertility, leading to higher agricultural yields; crafting aesthetically pleasing products mitigates health risks associated with broken bottles in the environment; and training programs empower individuals, especially women and persons with disabilities, offering them a means

of livelihood. Beyond economic benefits, Glisten Glasshouse contributes positively to the environment by preventing bottles from becoming health hazards in rivers and farms. In essence, Cyrus's initiative is not just a business; it's a sustainable model that enriches the community, fosters economic development, and promotes environmental responsibility.

Engaging in bottle cutting presents inherent risks, primarily the potential for injuries during the cutting process. Despite implementing safety measures such as protective clothing, including gloves and spectacles, the risk of accidents remains. Additionally, the financial investment in the business poses a significant risk. The development of the glass bottle-cutting tool involved substantial costs in terms of time, money, and personal savings. The uncertainty of returns adds to the financial risk, as the success of the invention is not guaranteed. Leasing physical premises for the business and waiting for interested customers or collaborators further compounds financial uncertainties. Another notable risk lies in the slow uptake of training programs. Despite the local community's expressed interest in learning bottle cutting and decorating, reluctance to pay for the training poses a challenge. The mismatch between the community's desire for free training and the financial investment required to provide such programs creates a financial risk for the sustainability of the venture. The current struggle to attract a significant number of trainees and the financial constraints faced by potential learners contribute to the complex risk landscape Cyrus navigates as he seeks to balance the financial viability of his business with the community's expectations.

Managing a startup entails juggling multiple roles, from training and accounting to marketing. While Cyrus delegates certain tasks like bottle collection to trainees, handling decoration, cutting, and cleaning remains manageable as they occur in a centralized location. Video creation for social media, particularly for platforms like TikTok, is currently a solo effort, but Cyrus acknowledges the need for a partner, especially for holding the camera during demonstrations. Expressing a preference for a mature and understanding partner, preferably female, Cyrus emphasizes the importance of endurance during challenging times. Recognizing marketing as his weakest point, he envisions a partner adept at marketing to complement his skills. The choice for a female partner also aligns with a desire for gender balance, considering it might enhance the appeal when presenting ideas to corporate entities. Despite gender preferences, Cyrus emphasizes the paramount importance of skills, specifically highlighting marketing expertise and resilience in navigating business challenges.

Cyrus has devised a comprehensive framework for his daily operations at Glisten Glasshouse. Focused on raising awareness, Cyrus intends to mobilize villagers to become an integral part of the solution within their community. His vision is to transform the perception of wine bottle waste from a problem to a valuable resource, fostering community empowerment and income generation. Through the creation of products such as drinking glasses, vases, and candle jars, Cyrus envisions not only addressing the local glass waste issue but also expanding the venture to include grinding bottles into sand and glass powder for construction purposes. His ultimate goal is for communities to consume their own waste, and he aspires to establish Glisten Glasshouse as a model for effective glass waste management that can be replicated by other communities across Kenya, turning the challenge of glass bottle waste into an opportunity for sustainable development.

The progress at Glisten Glasshouse has faced challenges in terms of slow uptake and difficulty in reaching the targeted local audience. Despite relying on social media for awareness due to cost constraints, Cyrus notes that the audience reached is often outside Kenya and the specific region, where his venture is situated. The location along the highway, on the outskirts, has hindered visibility and foot traffic essential for attracting local interest. While some sales of candle jars have occurred through the online platform jiji.com, the revenue generated falls short of Cyrus's initial goal. His original focus was on training individuals to create and sell the products themselves, aiming for community engagement and economic empowerment. The challenges in effectively conveying his message and the shift in goals have contributed to a slower-than-desired progress for Glisten Glasshouse.

Cyrus envisions expanding Glisten Glasshouse by acquiring a glass grinding mill to enhance the glass recycling process. Despite facing challenges in securing the capital for this endeavor, he remains committed to transforming discarded glass into sand and powder for construction purposes. Looking ahead, Cyrus plans to establish Glisten Glasshouse as a community training center, teaching various crafts beyond glass cutting. He aims to create a hub for short-duration courses, empowering individuals to start income-generating projects in their communities. Cyrus emphasizes the importance of practical, affordable crafts compared to traditional vocational courses, envisioning a model where locals learn and practice crafts that not only provide economic opportunities but also address specific community needs. Additionally, he expresses a keen interest in offering health-related courses, particularly for young mothers, focusing on topics such as breastfeeding, postnatal care, and awareness

of HIV and STIs. The ultimate goal is to create a comprehensive community training center that addresses both economic and healthcare needs.



Learning Activity

- a) What strategies can Cyrus employ to overcome the challenge of reaching his target audience effectively, especially within the local community?
- b) In what ways can Glisten Glasshouse enhance its marketing efforts to attract more students and customers, considering the unique challenges of promoting environmentally sustainable practices?
- c) How might Cyrus address the financial barriers that hinder individuals from enrolling in his training programs, balancing the need for income with the goal of community education?
- d) What collaborative approaches could Cyrus explore to overcome his current solo entrepreneurial journey and find a passionate partner, especially one skilled in marketing?
- e) Considering Cyrus's vision of expanding into other crafts and health-related trainings, what potential challenges and opportunities might arise, and how can he effectively manage this diversification?