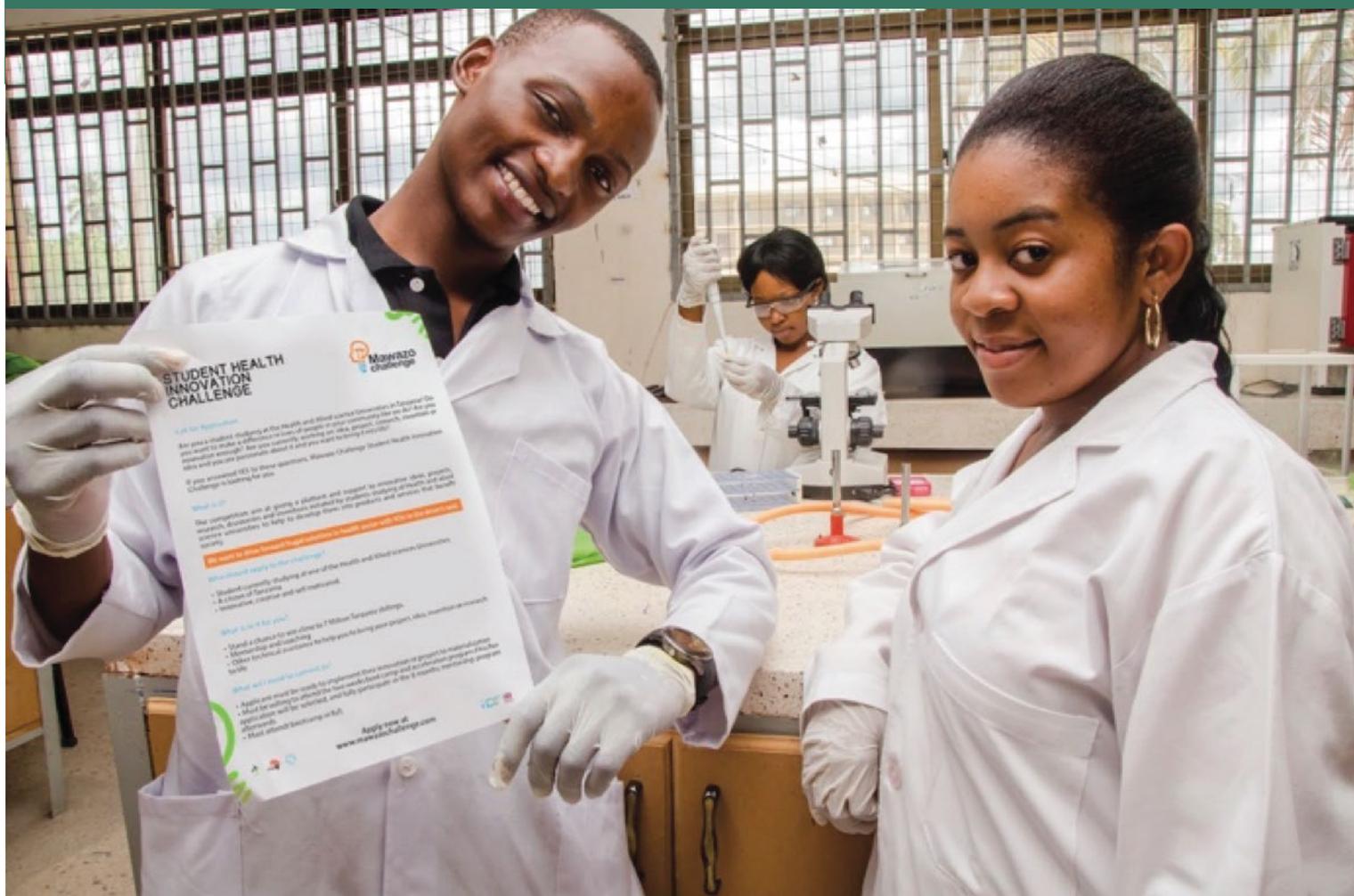


IMPLEMENTING A TARGETED INNOVATION CHALLENGE IN TANZANIA:

Lessons learned from the Mawazo Challenge
January 2019



BACKGROUND

The Mawazo Challenge' (Mawazo translates to 'ideas') was initiated to stimulate ideas, inspire new innovators, and increase support to potential entrepreneurs – such as funding and skills development – that could contribute to building a stronger innovation pipeline to help solve problems at the community level in Tanzania. HDIF originally designed the process to be carried out in two phases: (1) the aim of the 'ideation' phase was to identify new ways of generating innovative ideas to bring about community-level solutions; and (2) the 'implementation' phase was to identify an ecosystem partner to implement the winning idea.

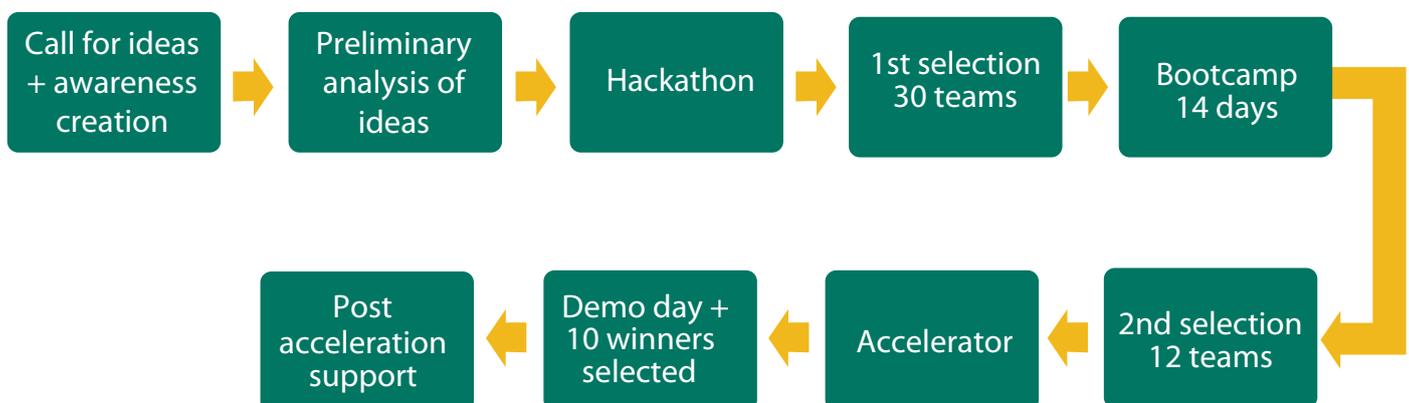
In the first phase, launched in July 2016, individuals, groups, and organisations were invited to submit ideas to generate community-driven solutions for everyday challenges. The best ideas were shortlisted, and the public was invited to vote on the top three ideas through a social media campaign. The first prize went to Edgar Mwampingwe for his idea to hold a student health innovation competition: this mechanism would specifically target university students (undergraduate, graduate, doctoral, and postdoctoral) studying health or an allied science field across Tanzania to prototype and test their research.

The health innovation competition aimed to provide practical experience and skills for university graduates in health-related fields; a focus on applied research among higher learning institutions in health; and potential identification of new health technologies.

In November 2016, HDIF launched the 'implementation' phase with a Request for Proposals to find an organisation or consortium to implement the Mawazo Challenge. The winning consortium was led by the Tanzania Bora Initiative¹ with Sahara Sparks² and the Tanzania Medical Students' Association (TAMSA) as consortium members.

PROJECT CONTENT, PHASES AND OUTCOMES

The Mawazo Challenge adopted a 'start-up accelerator approach', which encouraged rapid prototyping and developing fast go-to-market strategies. The original approach to delivering the programme was adapted to catalyse a stronger pipeline of quality ideas through a Hackathon (see box), as illustrated below.



¹ <http://www.tanzaniabora.org/>
² <http://www.saharasparks.com/>

The Mawazo Challenge started with an outreach campaign across ten allied science universities and reached approximately 1,000 students across the country. These campaigning events resulted in 358 ideas being submitted to the programme via a dedicated web portal. However, preliminary analysis of these submissions showed that the quality, viability, and originality of the ideas did not meet the required minimum standard. It was concluded that the information sessions that had been hosted at the universities and the media activities did not result in enough quality applications and that a more hands-on and practical approach was needed. The team decided to host a Hackathon weekend for interested students so that they could be coached through an ideation process and have the opportunity to work on their ideas. This approach was a success, as all six ideas generated during the Hackathon reached the shortlist. However, it could be interpreted as creating geographical inequality as the Hackathon was organised only in Dar es Salaam.

“What is hackathon?”

A hackathon (also known as a hack day, hackfest or codefest) is a design sprint-like event in which computer programmers and others involved in software development – including graphic designers, interface designers, project managers, and others, and often including subject matter experts – collaborate intensively on software projects.³ It can also be defined more broadly to encompass any event of any duration where people come together to solve problems.⁴

From the 358 ideas received through the application process, 30 were shortlisted. These 30 teams took part in a 14-day Bootcamp to deep dive into their ideas. Following this, 12 of the 30 teams were selected to join the ‘acceleration programme’, during which medical experts together with technology, innovation, and entrepreneurship experts worked with the teams to turn the ideas into feasible, reliable, and viable solutions that could be commercialised. After the acceleration programme, the 12 teams presented their refined ideas to a panel of judges, who selected ten ideas to be awarded GBP 1,000 each in seed funding and to receive continuous mentorship through a post-acceleration support programme.



³ <https://en.wikipedia.org/wiki/Hackathon>

⁴ <https://hackathon.guide/>

The ten Mawazo Challenge winners are:

1. **Afya Pamoja:** an integrated referral system that provides better access to public and private health specialists.
2. **iMama:** provides information for mothers on sexual, reproductive, and maternal health through a smart chatbot (a computer program that simulates human conversations) and web portal.
3. **Ongea na Daktari:** addresses the lack of accurate, convenient, holistic, and real-time health information by linking health professionals to patients via a mobile solution.
4. **Amka Kijana:** creates awareness of HIV/AIDS using animation and digital media.
5. **PharmLink:** addresses the problem of drugs stock-outs and fake drugs with a mobile app solution.
6. **Super Lishe:** addresses malnutrition amongst under-fives with spirulina supplements.
7. **Jamii Medical Awareness:** raises awareness and provides intervention measures on antimicrobial resistance using community mobile camp and media.
8. **Juliana Product:** aims to improve the reproductive health of young people using a holistic product with contraceptive pills, condoms, and sexual and reproductive health information.
9. **Afya Plus:** a holistic solution that enables individuals to learn about their health status by using a mobile app to measure multiple biometric attributes such as weight, height, and BMI.
10. **Mbima:** a mobile-based health insurance product targeting low-income groups.

At the time of writing, most of the winners are continuing to work on their innovative solutions. Amka Kijana, PharmLink and Jamii Medical Awareness all participated in the Muhimbili Annual Win and Learn Competition and were awarded the top three positions. iMama and Afya Plus have participated in the Botnar Challenge (<https://www.herox.com/thebotnarchallenge>) and both had progressed to semifinals at the time of writing. Juliana Product participated in the Southern Africa Startup Awards 2018 and has been nominated as the only Tanzanian in the Best Student Startup Category (nine nominees).

LEARNING

Following the Challenge, HDIF held feedback sessions with the implementing consortium members and HDIF staff to discuss the experience and to extract learning for future activities.

What worked?

The consortium concluded that partnering with TAMSA to coordinate the student information sessions was cost-effective and worked well. The main channel for communicating with potential participants was online which allowed for two-way communication; students were able to ask questions via the Mawazo Challenge social media platforms and that helped to create connections with the students from universities that were not visited. The consortium of organisations and individuals that made up the Mawazo Challenge team all had relevant experience from implementing similar



activities and they were able to build on this. HDIF contracted the consortium to deliver the activities and this allowed them enough room to learn, make decisions, and adapt the programme as needed.

The Hackathon was an adaptation to the project that clearly helped the participating students to understand the concept, as well as presenting an opportunity to develop their ideas – and the resulting ideas were among the strongest in the Challenge.

The Challenge overall improved the way the participating students think, the way they look at problems in their societies, and the way they approach these problems to find solutions. This could be said to be the most important impact of the project.

Promoting equal opportunities

The Mawazo Challenge team outlined their commitment to promoting diversity and equal opportunity in their project proposal but in practice this proved more difficult to ensure. Analysis of the data collected relating to the initial applications showed that the majority of submissions were by male students.⁵ When this issue came to light, a new requirement that each team must have a minimum of one female member to be eligible for the award was introduced, and to a large extent this improved female representation among participating students.

The consortium was required to provide monthly technical progress reports, and HDIF expected the consortium to manage their finances as per the contract. This enabled them to operate flexibly and to adapt their approach to deliver as needed.



⁵ As of July 2017, 293 applications were received, with 220 (75%) from men and 73 (25%) from women.

What could have gone better?

Student participation: It was a challenge to secure the full participation of medical students in the project as they were occupied with their studies. To overcome this, the project schedule was adapted to fit with the university timetables to make the project activities more accessible to the students.

Skills and technical know-how: The consortium realised that providing the students with a basic understanding of innovation was not sufficient to guide the development of technically sound ideas responding to medical challenges. They concluded that the presence of a strong health sector partner with technical expertise could have benefited the students and their ideas.

Innovation mindset: Some students had not been exposed to the same opportunities as those students who came from a technology or innovation background. They were originally less willing to work in teams, collaborate, or to share their ideas with others. The tools and information that were developed to guide students through the Challenge process was insufficient given the students' lack of innovation-related skills and experience.

Exposing participating students to entrepreneurship, collaboration, and design thinking and theory during the initial round of a project like this could encourage increased collaboration and hence better ideation outcomes. In particular, more practical tools to help the students understand innovation concepts, how to form a team, and how to develop a viable idea would have supported a stronger pipeline of teams and viable innovations.

Recommendations

- If a similar challenge is organised, the goal of the activity should be made clear at the outset, i.e. whether it is addressing the innovation skills gap or developing a pipeline of commercially viable ideas. This would help to inform the design of the programme to either target individuals who have some experience or to work with people with little or no innovation-related experience and skills.
- The inclusion of women, girls, and other hard-to-reach groups should be considered during the design stage and revisited throughout implementation to ensure an equal and fair representation of diverse beneficiaries.
- If the aim of the challenge is to create viable solutions, support to beneficiaries should go beyond capacity building (ideation, prototyping, and testing) and include support to pilot the innovation, identification of markets, and linkages with investors, etc.
- Depending on the nature of the challenge, a thorough analysis should be carried out to determine a realistic level of seed funding that is sufficient to effectively test the winning idea(s).
- Implementers should carefully manage beneficiaries' aspirations regarding the prospects of developing a commercially viable idea and ensure that the ideas selected can be effectively tested within the given resources (seed funds, technology, capacity, etc).
- The planning of the post-acceleration phase should start early on, including the development of an engagement strategy for partners, funders, and investors. This will support the beneficiaries' understanding of 'what is out there' and guide them to develop solutions that can be tested/scaled up.

- The project team recommend designing the project to include hackathons within the universities, instead of information sessions. This would provide students with the opportunity to develop skills and a better understanding of innovation concepts to support a stronger pipeline of ideas.
- Build in some contingency to the budget to take advantage of emerging opportunities and allow for adaptations to the programme during implementation to respond to challenges and learnings as they emerge.

CONCLUSION

HDIF is pleased to see the positive impact that the Mawazo Challenge has created in stimulating ideation and skills development for young people as well as generating meaningful steps towards new solutions in health care for Tanzania. We would welcome the opportunity to share further insights and learnings and discuss the design of similar programmes with other funders. HDIF extends its thanks to the Mawazo Challenge consortium and to all the students who took part.



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