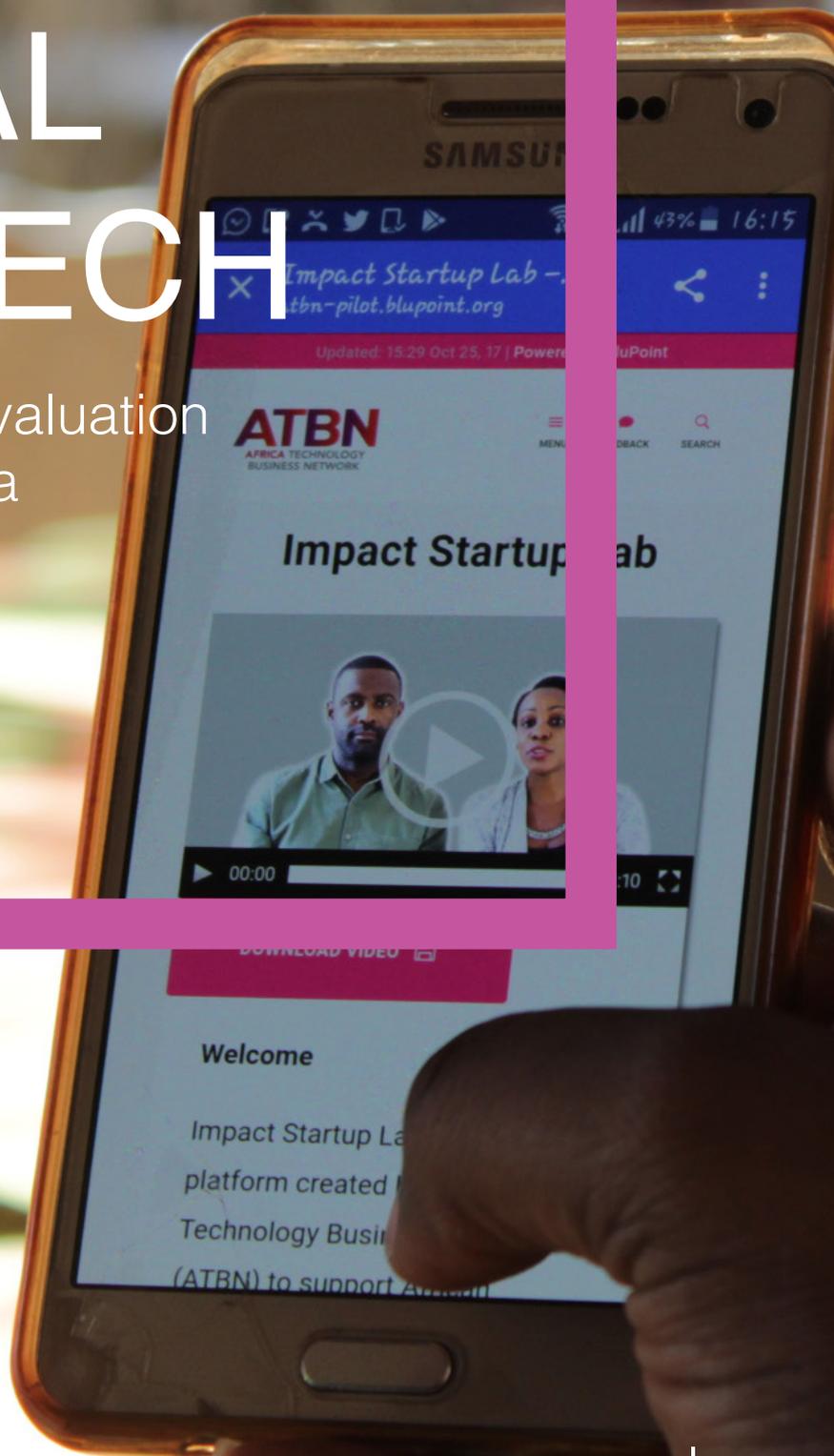


BRINGING WOMEN INTO DIGITAL AND TECH

An Independent Evaluation
of #HerFutureAfrica



Acknowledgments

My grateful thanks to all those who participated in interviews and focus groups over the evaluation period, in particular, #HerFutureAfrica participants; this report would not have been possible without your time and willingness to offer your reflections, insights and honest feedback. To the Africa Technology Business Network and Women in Tech Africa, I commend your efforts with this remarkable program and extend my sincere thanks to you for your support in coordinating the logistics relevant to this evaluation.

To iSpace, for making your hub available for interviews and discussion; it was a privilege to learn more about what you do and how you endeavour to equip a generation of entrepreneurs in Ghana.

Table of Contents

Acknowledgments	1
Introduction	3
Program Brief	3
Evaluation Purpose and Objectives	3
Summary of Key Findings	5
Methodology	7
Sampling techniques	8
Constraints and Limitations	9
Context and Program Contribution	10
#HerFutureAfrica Theory of Change	12
Program Overview	14
Findings	16
Pathway 1: Access to business and digital skills	17
Pathway 2: access to local and international networks	22
The impact of empowered female entrepreneurs	27
Monitoring and Evaluation Capacity	28
Conclusion and Recommendations	30
Recommendations	31
References	32
Appendix	35



Introduction

Program Brief

The Africa Technology Business Network (ATBN) works to accelerate technology (tech) innovation and entrepreneurship in the African continent. As part of its portfolio of work, ATBN launched #HerFutureAfrica, a program providing access to business skills, mentorship, and business support to equip young Ghanaian women in building tech-enabled businesses. The program has an explicit focus on improving the lives of women and girls, and therefore, endeavours to train program participants in conducting balanced market research and refining business ideas to positively impact the lives of women and girls. #HerFutureAfrica was hosted in partnership with a leading Ghanaian network of female tech-entrepreneurs, Women in Tech Africa.

Evaluation Purpose and Objectives

The purpose of this evaluation was to examine the extent to which #HerFutureAfrica was effective in achieving its two expected outcomes:

- a) Empowered young African women are able to innovatively solve challenges and confidently share their ideas and;
- b) Increased capacity of female entrepreneurs to lead tech-enabled businesses that positively impact the lives of women and girls in Africa

The evaluation was concerned with synthesizing existing data on the project's achievements, challenges, and learning, with the intention of then triangulating evidence to validate the program's Theory of Change.

The key evaluation questions were as follows:

- 1) To what extent does #HerFutureAfrica address an identified need in the Ghanaian tech-ecosystem?
- 2) To what extent has #HerFutureAfrica successfully delivered its program objectives?
- 3) To what extent has the delivery of program objectives led to #HerFutureAfrica's contribution at the outcome level?

The evaluation was not concerned with providing causal evidence but rather, was focused on using thick descriptive evidence to evaluate the strength of the program's contribution towards its outcomes. As such, the evaluation sought to uncover the features of the program and local context that were particularly effective in influencing the attainment of outcomes and the unintended consequences, both positive and negative, that resulted.

Finally, given that #HerFutureAfrica is a pilot, the evaluation sought to understand the factors motivating participation in the program and the ways in which #HerFutureAfrica could improve its offering for future iterations.

The evaluation was commissioned in October 2017 with approximately five-weeks lead time prior to interviews with local participants and partners. A total of 12 consultancy days were allocated to the evaluation, with three days spent in Ghana.

FOR SUSTAINABLE GROWTH & IMPACT IN AFRICA



Summary of Key Findings

The program successfully attracts a new and wide demographic of female entrepreneurs to the Ghanaian technology ecosystem.

#HerFutureAfrica is effective in targeting early-stage entrepreneurs who demonstrate a commitment to improving the lives of women and girls but who lack the skills and networks necessary to fully participate in the Ghanaian tech ecosystem. The majority of selected applicants had no prior exposure to the Ghanaian tech or social enterprise ecosystem, largely due to a lack of awareness or a belief that existing programs did not have considerable appeal. To this end, #HerFutureAfrica's focus on improving the lives of women and girls through innovative business solutions was compelling among participants and played a large role in driving applicant interest. Additionally, the program's decision to ensure marketing was devoid of a focus on tech proved effective, as it ensured women did not discount themselves as potential candidates for the program.

The program's core curriculum is strong and builds the confidence of participants while positively shifting their views of the tech sector.

The program successfully supports a shift from ideation to implementation through a strong core curriculum. Among other things, the applied curriculum trains participants to refine and validate their business ideas through market research and iterative business development. The link between accessing the training and having an increased sense of empowerment was clearly evident in the shifting perceptions across participants of their own ability to succeed as entrepreneurs. Moreover, the program encourages women to rethink their ability to participate in the technology sector by critically expanding the definition of what it means to engage with technology as an entrepreneur. The impact of the latter was evident in the new tech-based opportunities sought by participants at the end of the program.

The program can strengthen its training on digital marketing and content production to better equip participants with tools for tech-enabled businesses.

While the program supports participants in building a basic digital presence using web and social media tools, training on the latter could be strengthened through more effective integration with the core curriculum. The ability to use social media in one's personal life does not automatically extend to know-how in a professional context. As such, targeted training on digital marketing and content production would enable participants to more meaningfully integrate tech-based tools into their business solutions.

The network effect is enabled through a well selected cohort of participants and strong local partners.

Participants derive considerable benefit from their peers and the program's local partners. These links were used to access additional customer bases or drawn on to access support in areas such as business registration and accounting. Some participants, however, who were offered formal branding or business strategy advisory subsequent to the program, struggled to

activate the business relationship; the program could do more to facilitate and transition relationships with sponsors to the relevant participants. Overall, however, the exposure to like-minded peers, industry experts, mentors, and other actors within the ecosystem has a positive impact in nurturing the entrepreneurial potential and confidence of participants. This reinforces the ability of participants to navigate a complex business environment and importantly, leads to an increase in self-directed involvement in business and tech opportunities beyond the program.

The mentorship program complements the innovation bootcamp but could be more effectively supported by #HerFutureAfrica program staff.

To further support candidates, the program matches participants with mentors. The mentors have a largely positive impact in consolidating the program's skills transfer and supporting participants in expanding their networks. However, competing priorities on either the mentors' or participants' part led to a discontinuation of some relationships while in others, mismanaged expectations proved a source of frustration. Where, however, the relationship was strong, the benefits were large and accrued to both the mentor and participant involved. By providing mentors with more comprehensive background to #HerFutureAfrica and setting out high-level terms for the mentorship program to guide mentors/participants, the program can ensure greater consistency in the experiences of those involved.

The program's positive impact on women and girls extends beyond its core participants.

The growth and success of female entrepreneurs has a clear multiplicative effect. Participants demonstrated the ability to positively impact the lives of women and girls through their business ideas as well as through their ability to act as role models within their personal and professional networks. As such, it is clear #HerFutureAfrica is able to positively influence the lives of women and girls beyond its core participants.



Methodology

Overview

At the onset of the evaluation, discussions with program leads were held to build an understanding of the program's Theory of Change. Application data, pre and post program survey data, and survey data on the mentorship component of the program — the latter completed by both participants and mentors — were subsequently analyzed. The surveys were designed by #HerFutureAfrica and included a mixture of multiple choice and short text entry questions.

In addition to survey data, a review of the market research assignments completed by participants subsequent to the two-day innovation bootcamp took place. These assignments were used to better understand the program content and the degree to which participants demonstrated an ability to apply the training received; in this case, to what extent participants were able to tease out the implications of their research findings on the proposed business idea.

The survey results and document analysis were then supplemented by the program's ecosystem roundtable and the evaluator's key informant interviews, focus group, and in-depth interviews, all of which took place during the evaluation visit.

Understanding the context: Key informant interviews and ecosystem roundtable

Four key informant interviews, one of which was with the local partner, were completed during the initial phases of the project to provide contextual insight. These interviews also helped refine the evaluation questions. Interviews were held in a semi-structured format to balance structure with the flexibility necessary to draw on a given interviewees particular area of expertise. A roundtable discussion brining approximately 35 to 40 actors within the Ghanaian social enterprise and technology ecosystem was then held to further explore the context and #HerFutureAfrica's place and contribution.

Evaluating impact: Focus group and in-depth interviews

Subsequent to the key informant interviews, four in-depth interviews with program participants were completed, again drawing on a semi-structured interview format. The interview questions explored the areas of the program that were particularly beneficial, the mechanisms by which change occurred, and the overall impact of the program both on the individual and those in her sphere of influence. The questions were written with reference to the program's existing indicators but extended to address and respond to data gaps; for example, all participants were asked, where relevant, to discuss their participation in previous bootcamps or accelerators and/or participation in similar programs during their time with #HerFutureAfrica. This was to support verifying who #HerFutureAfrica was attracting and to what degree the changes observed could be attributed to the program.

One focus group was held with three program participants to explore in-depth one of the program’s key assumptions: women need a safe space to innovate. The focus group explored motivations for applying, including the role of a women-only cohort in influencing the application decision, elicited participants’ existing perceptions of the Ghanaian tech ecosystem, including perceived barriers to entry, and personal reflections of the most significant changes resulting from participation in the program from both a professional and personal standpoint.

Finally, three in-depth interviews with mentors were completed using a semi-structured format. Interview questions sought feedback on the overall experience, mentors’ reflections on their mentees, and suggestions for program improvements.

Analysis

The program’s Theory of Change served as the main analytical framework for the evaluation. Interviews were structured to trace the link from activity to outcome and were additionally used to verify the relevance of competing explanations for the attainment of a given outcome. Findings were then summarized and thematically coded for analysis.

Sampling techniques

A purposive sampling method was used to select key informants and program participants. Key informants were selected based on their knowledge and participation within the Ghanaian social enterprise and technology sector. Here, two men and two women were interviewed, all of whom had at least eight years of experience in the sector.

With respect to program participants, a cross-section of candidates was identified to establish variance across key dimensions such as the stage of the business at the time of application and the applicant’s progression through the program. Table 1 details the sampling strata.

Type of research	Participant ID	Status at the time of application	Candidate progressed to the final 10	Assignments completed
In-depth interviews	Participant 1	I'm currently unemployed and looking to set up my own business	Yes	Yes
	Participant 2	I'm working in a full-time job and would like to set up a side business as a secondary source of income.	No	No
	Participant 3	I'm already running my own business full-time	Yes	Yes
	Participant 4	I'm currently a student	Yes	Yes

Type of research	Participant ID	Status at the time of application	Candidate progressed to the final 10	Assignments completed
Focus Group	Participant 5	I'm already running my own business full-time	No	No
	Participant 6	I'm working in a full-time job and would like to set up a side business as a secondary source of income.	No	Yes
	Participant 7	I'm already running my own business full-time	No	Yes

Table 1: Participant sampling strata

Constraints and Limitations

Access to participants

Interviews were carried out with 7 of 32 participants, reflecting a reasonable but nevertheless small sample. As such, the evaluation was primarily constrained by the limited access to participants. While a purposive sampling method was used to capture variation across participants, no interviews were conducted with participants who were no longer working on their business. To respond to this gap, the program partner made follow-up calls to 7 participants who were no longer active in the network subsequent to the evaluation visit. This was to verify their progress and where possible, to determine the barriers to continuation. These findings are incorporated into the report. Thus, while insights conveyed are of relevance and importance, the views expressed cannot be taken as a representative sample. The core sample is further subject to selection bias given participation was on a voluntary basis.

Subjectivity and interpretative bias

Interview findings were thematically coded based on a single evaluator's perspective and are therefore, subjective. Efforts were made to reduce bias by setting out evidence criteria to validate the Theory of Change in advance of field research. As with any qualitative study, however, interpretive bias cannot be entirely eliminated.



Context and Program Contribution

Ghana has historically been recognized as one of West Africa's most stable democracies; the country's relatively liberal economic policies and growing middle class point to the country's optimistic future (Greenberg, 2014). More recently however, Ghana has grappled with high debt, high inflation, and a weaker currency (International Monetary Fund, 2016). Electricity costs remain high due to persisting governance and supply issues in the energy sector and high rates of youth unemployment continue to present major challenges to the country's growth and economic prosperity (World Bank, 2017, African Development Bank (AfDB), n.d.).

In 2017, the country's newly elected Akufo-Addo regime committed to restore the country to macroeconomic stability, with fiscal consolidation and a revival of private sector investment at the forefront of its policy priorities. The 2017 budget also includes a National Entrepreneurship and Innovation Plan, which is expected to serve as "the primary vehicle for providing integrated support for early stage (start-ups and small) businesses, focusing on the provision of business development services, business incubators, and funding for youth-owned businesses" (AfDB, n.d.). This plan and renewed interest in implementing the 2011 Industrial Sector Support Plan to tackle the high cost of credit and limited access to start-up financing (AfDB, n.d.) reflect and build on the existing interest in driving social entrepreneurship in the country.

Within this burgeoning start-up landscape is a separate but related ecosystem — the tech start-up sector. Ghana's high mobile penetration rates, estimated at approximately 130 percent¹ in 2016 (National Communications Authority, 2016), and increased government investment in communications infrastructure present a strong starting point for the creation, distribution, and consumption of innovative digital solutions in the country. Recognizing the market unfolding, large technology companies such as Google, Microsoft and IBM have invested in infrastructure, products, and skills development to support the sector (Greenberg, 2014). In 2007, Meltwater, a Norwegian Software as a Service company with its headquarters in Silicon Valley, launched the Meltwater Entrepreneurial School of Technology (MEST) to train and incubate a select few tech entrepreneurs each year. In its first eight years of operation however, the number of female applicants to the program was "shockingly low" (MEST, 2014). While application data has since improved as a result of aggressive marketing efforts, the lack of a visible and forthcoming pool of female applicants is not surprising considering broader issues of recruiting women into STEM subjects (UNESCO, 2017). Looking more generally at the social enterprise ecosystem in Ghana, similar trends prevail: a survey of 125 Ghanaian social enterprises completed in 2016 found only 39 percent to be led by a woman (British Council, 2016). The report further found female-led ventures to face higher constraints in accessing public services and to be more concerned with financial constraints than their male counterparts; these findings are echoed by the International Finance Corporation (IFC) (2007).

¹ Multi-sim ownership accounts for rates above 100%

In delving further into the factors shaping these gender-specific constraints in Ghana, the IFC (2007) found women are more uncertain about the market within which they operate and are less equipped with the networks necessary to navigate the ecosystem.

Given the tech ecosystem is a sub-set of the broader social enterprise landscape, it is not unreasonable to expect these challenges to follow women into the Ghanaian tech ecosystem, perhaps even to a larger extent if global trends are an indication (Fortune, 2017; Becker, 2017). There is a clear need to support women into the ecosystem to ensure gender barriers do not preclude broad participation in the knowledge economy. #HerFutureAfrica aims to respond to gaps in the local tech ecosystem and in so doing, invariably responds to some of the general constraints evident in the Ghanaian enterprise ecosystem.

The next section of this report examines the program's Theory of Change.

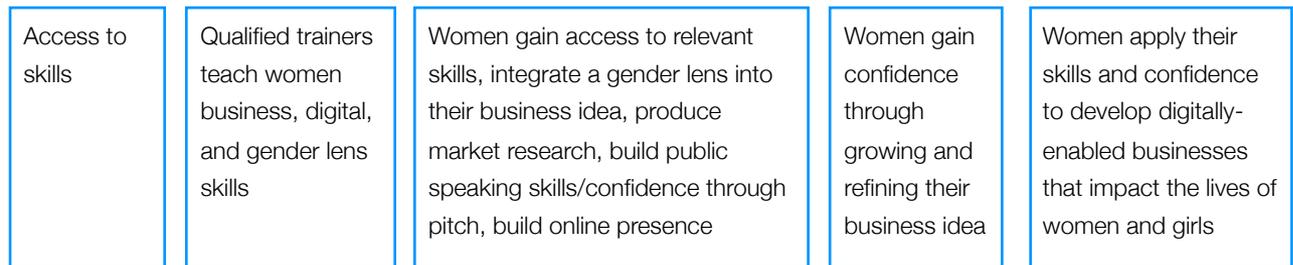
#HerFutureAfrica Theory of Change

#HerFutureAfrica's Theory of Change is grounded in the evidence that investing in the empowerment of women pays dividends to society at large (Population Council, 2015). As a first step, the program aims to impact the lives of women and girls by appealing to the existing zeal of female entrepreneurs to solve their own challenges; among other criteria, applicants were selected based on their ability to demonstrate the potential of their business idea to respond to existing challenges that women and girls face. Further with respect to the application, #HerFutureAfrica marketing was purposefully devoid of language pertaining to digital and technology despite the program's clear objective to equip women with these skills. This was in response to the recognition that existing perceptions of the Ghanaian tech ecosystem among women were largely unfavourable and required recalibration (Key Informant 3). While seemingly peripheral, it is impossible to ignore the emphasis on recruitment; it plays a strong role in ensuring the right target audience and is a critical precursor to enabling the program's Theory of Change.

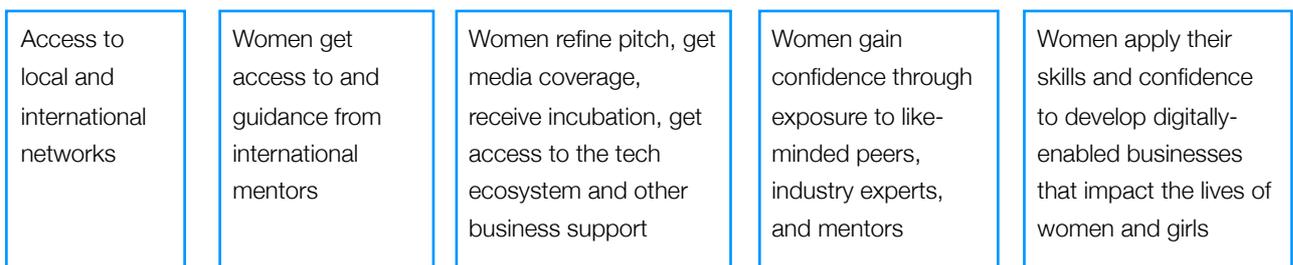
Once selected, participants of #HerFutureAfrica are equipped with a range of business tools and supported in expanding their personal and professional networks. The curriculum draws largely upon design thinking methodologies, emphasizing ideation, visualization, and experimentation, to support participants in the process of experiential learning. The benefits of experiential learning — problem solving skills and cognitive flexibility for example — are numerous (Cantor, 1997; Hamer, 2000) and particularly amplified in a context where the mainstream education tends to weigh towards rote versus applied learning (Key informant 1, Key informant 2). While in general, skill building and training are clearly linked to empowerment, the pedagogy of #HerFutureAfrica proves particularly well-aligned to supporting the program's focus on building the confidence and agency of participants. Empowerment is however, a complex interplay of factors that extend beyond enabling agency to responding to the structural and relational factors that influence and condition one's choices (Care International, 2014; Cherie Blair Foundation for Women, 2016). Access to networks and business support for example, play a strong role in enabling participation in the entrepreneurship ecosystem (Cherie Blair Foundation for Women, 2016). To this end, #HerFutureAfrica's mentorship program is driven by a well-evidenced understanding that role models and mentors play a critical role in shifting an individual's perception of what is possible while simultaneously supporting her in continuing to build her skills and in expanding her network. While all program participants had access to the core business training and mentorship, the Top 10 finalists were provided additional business support, including access to co-working space and industry events. Of these finalists, the two program winners received additional coaching and branding support, with the 1st prize winner taking home \$1000. The program therefore demonstrates keen attention to incentivizing achievement and works to equip participants with capital in both tangible and intangible ways. Baron and Markman (2000) demonstrate the value of social capital in increasing access to capital and customers while additionally highlighting the value of networks in building social skills. While the latter is often underplayed, it proves increasingly valuable in leveraging the opportunities made available by one's networks.

The program's focus on skills and networks formulate its two core pathways for change. Moreover, the Theory of Change recognizes that an investment in the individual as an entrepreneur precedes the proliferation of female-led, tech-enabled businesses. As such, Outcome 2 (increased capacity of women to lead tech-enabled businesses) is contingent on Outcome 1 (empowerment) but each outcome reinforces the other. The diagram below summarizes the expected causal chain, while Appendix A presents the program's full Theory of Change and associated performance framework.

Pathway 1: Access to skills



Pathway 2: Access to local and international networks



Safe Spaces

In addition to its core activities formulating the pathways for change, the program recognizes the importance of space and context in providing the appropriate conditions for learning and empowerment. To this end, #HerFutureAfrica is a women-only program that is structured as such to create a safe space for women to build a network of support. While a restricted cohort itself does not guarantee a safe space, program leaders demonstrated an awareness and ability to create the appropriate norms for this kind of innovation environment. Again, the program's structure in this respect is consistent with approaches taken in other tech-based programs that aim to close the gender gap in the industry (Melo and Parsons, 2015).



Program Overview

Table 2 presents an overview of the program, starting from the online application.

Stage	Description
Online application	<p>#HerFutureAfrica received 479 applications, all of which were submitted online. These applications were then sifted based on the following:</p> <ul style="list-style-type: none"> A. <i>Location</i>: Priority given to Accra-based participants, as this was where the program's partners were based. The program wanted to ensure participants could draw on networks established during the program to support continued activity, and therefore, prioritized a geographically concentrated program. B. <i>Motivation</i>: The candidate can articulate their motivation for applying, what they hope to achieve, and what skills they bring. C. <i>Initiative</i>: The candidate has done some research on their idea and can explain how it will work and what problem it will solve. D. <i>Flexibility</i>: The candidate is able to demonstrate they are committed to the program, and are flexible and open to collaborating with others on their business ideas. E. <i>Impact</i>: The candidate is passionate and enthusiastic about their business idea and is able to demonstrate how it will impact women and girls. F. <i>Innovation</i>: The idea is new, or a new version of an existing product or service, and incorporates the use of technology.
Interviews	<p>The team carried out 60 interviews and selected 35 women.</p> <p>Participants were selected based on their cumulative score across the 5 dimensions listed above.</p>
Bootcamp	<p>Of the 35 selected candidates, 32 attended the innovation bootcamp. The curriculum included tools and exercises on problem solving, business planning and research, communication/pitching, and networking.</p> <p>All 32 participants received a complimentary 3-month membership at a local co-working space, including access to events and workshops.</p>
Mentorship and assignments	<p>27 participants met with their mentor and 20 completed their assignments. These assignments included carrying out a market survey, writing a project plan, developing a pitch deck, and creating a basic online presence (website/social media).</p> <p>The mentorship program was designed to support participants in completing their assignments as well as broadening their networks. All participants who completed and submitted their assignment received feedback.</p>





Stage	Description
Demo Day	10 of the 27 participants who successfully completed their assignments were selected to present their initiative before a panel. The pitch event brought together business experts, ecosystem players, and media. These Top 10 participants were awarded access to an additional 3 months of co-working space at a local hub, including access to the hub's workshops & events.
Business incubation and support	The Top 2 candidates from the pitch event received further support to develop their ideas. This included branding support, business strategy advisory, and business accounting support. The 1st place winner was further awarded \$1000 to develop her business.
Currently working on business	At the time of the evaluation, 16 participants were known to be working on their business.

Table 2: #HerFutureAfrica program overview and participation funnel



Findings

Meeting an unmet need with the right audience

#HerFutureAfrica received 479 applications from a cross-section of candidates across the African continent. While high applicant volumes alone affirm the need for such programs, it is of significant interest to note that the majority of selected applicants had no prior exposure to the Ghanaian tech or social enterprise ecosystem.² When asked as to why participants were not previously involved in existing incubation programs, a lack of awareness and/or the fact that other programs did not match their motivations were among the most frequently cited responses. Participant 1, for example, affirmed, “it was the women and girls angle that drew me to apply.” When asked about similar programs at local hubs and leading incubators such as MEST, she expressed hesitation, classifying the latter as solely about, “coding and building apps.”

While some participants indicated a willingness to apply to a mixed cohort provided the program continued its focus on innovating for women and girls, others felt they would have been less motivated to do so:

“Because it was an only female thing, it was like okay, I’m going to meet other ladies as well. So I think it motivated me a bit more.”

Participant 3

“I would have applied if it was mixed but I think I felt more motivated this time because it’s like, ‘girl power’.”

Participant 2

Participants’ views echoed the suppositions of Key Informant 3, who felt that incubators in Ghana typically draw on and target existing networks, making the first step into the ecosystem a challenging one. She further noted the cultural difference between #HerFutureAfrica and well-known tech incubators such as MEST, noting, “it isn’t always about Silicon Valley and making millions; some girls just want a sustainable business.” While there is a need for programs such as MEST that invite high-value, scalable tech solutions, it is clear they may not cater to all needs. The views shared by Key Informant 3 were echoed by Key Informant 4 whose co-working space attracts a number of Ghanaian high-school drop-outs and college graduates who he feels, “lack the business skills but have the passion to solve.” As he sees it, the local skills gap is a critical barrier to the proliferation of locally-driven entrepreneurship in the continent.

In successfully attracting local female innovators, #HerFutureAfrica proves itself well-positioned to empower a wide demographic of aspiring female entrepreneurs. This next section highlights findings pertaining to the programs two key outcomes.

² Note: Applications were filtered based on geographic proximity to assist in the implementation of the program. The most competitive candidates from the pool of Ghanaian applicants were selected for this first round of the program.

Pathway 1: Access to business and digital skills

The most prominent theme across all interviews was confidence; participants consistently and emphatically spoke of the program's impact in empowering them to believe in their ideas and in equipping them with the tools to develop evidence-based solutions. Here, the curriculum of #HerFutureAfrica played a strong role, with market research and the concept of receiving early feedback through testing a 'Minimum Viable Product'³ being two of the most frequently highlighted aspects.

Participant 3, who was working on her digital marketing business prior to the program said:

"I just started the business because I thought that there was a need for it. But it was just an assumption. I realized that it was very important for me to do that kind of research. It helped me to understand aspects of my business that I didn't really know about. I thought every business needs digital marketing in Ghana. But I realized that a lot of business owners didn't see a need for it. As a result, I changed my target market to focus on an international market at the moment."

In a similar way, Participant 7 came to the program as an existing business owner, trying to draw on her experience as a beautician to develop medical wigs for cancer patients. With the program, she was supported in structuring her business idea and carrying out market research. She subsequently realized the price point at which her medical wigs would be purchased was too low to be sustainable. She re-evaluated her business model and pivoted to designing fashion wigs for theatre productions with the intention of then re-directing profits to support medical wigs as a non-profit venture.

In both scenarios, participants had not previously recognized the importance of verifying and building a market or been made aware of the necessity of such things as accounting:

"I went to hair school and beauty school. I never thought about the hair business as in-depth as #HerFutureAfrica taught me to think. I thought my business is hair but I didn't realize what else went into running a business."

Participant 7

"I got in touch with Selasi for accounting. I didn't even know it was necessary for my business. I didn't see the importance of bookkeeping"

Participant 3

Given business strategy, market research, and accounting are basic features of a business education, ensuring access to quality training in this regard is crucial to building the kind of confidence that can ultimately manifest in the success of a business. The post-program survey results, presented in Figure 1, are consistent with the interview findings and overall, highlight the curriculum's effectiveness in transferring relevant skills.

³ Author of "Lean Startup", Eric Ries defines the Minimum Viable Product as a "version of a new product which a team to collect the maximum amount of validated learning about customers with the least effort" (Agile Alliance, 2015).

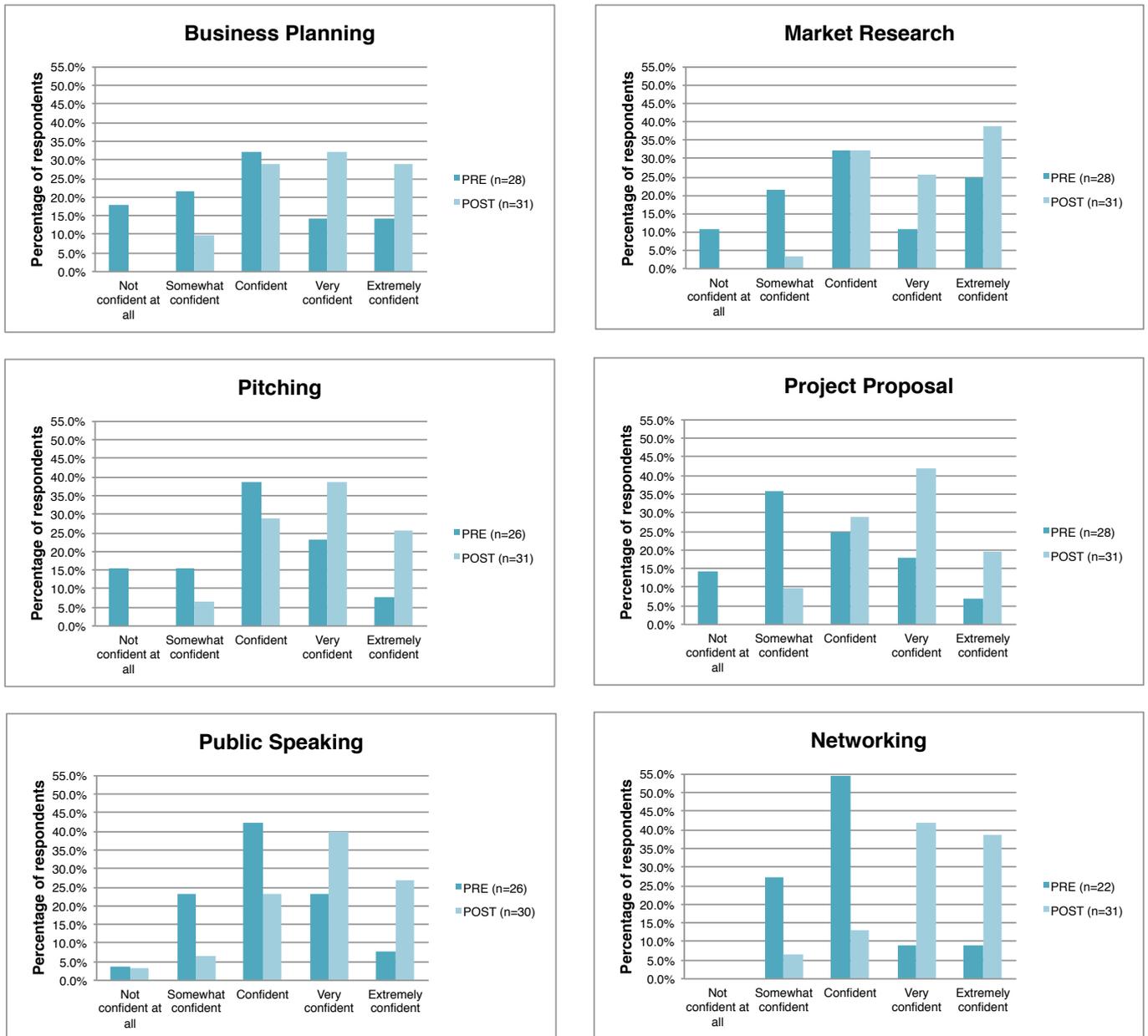


Figure 1: Pre and post program survey results

The post-program survey results highlight a shift from feeling “somewhat confident” or “confident” to “very confident” and “extremely confident” in each of the six core learning areas. Moreover, the link between accessing the training and having an increased sense of empowerment is clearly evident in the shifting perceptions across participants of their own ability to succeed as entrepreneurs. At the most basic level, the value of being able to articulate one’s opinions and ideas cannot be understated:

“I’m able to articulate what I’m doing, that’s a big deal. I think I was surprised to go through the whole process and actually pitch this idea. When I shared it with anyone in my environment, it was like, “what are you talking about?.” Here, they were like, “that sounds great, but what if you could tweak it in this way?.” So not only valuing ideas but adding value; that’s someone who is trying to get you some place. This has impacted

my ability, not in the sense that I could do it but believing that I could — those two things are different things.”

Participant 1

“Even though I was good at speaking, this was something very new. Being at the program, there was one session — communicating your ideas with impact — that was very good. I didn’t know that when you are presenting your ideas, you should try and tell a story.”

Participant 4

All participants interviewed reflected on their ability to more confidently approach a variety of audiences to further their businesses, whether for the purposes of market feedback or customer acquisition. Participant 2 for example, who came into the program with an idea to market a locally-produced health drink but felt as though she, “wasn’t really getting it all right,” left with the confidence to test her product and ultimately, catered for a wedding of 500 people:

“I learnt there’s no harm in trying. Just keep changing and improving and you’ll get there. I had the idea but I was scared. If it had happened before the program, I’d be like, “no, I can’t do it.” But now, even if it was catering for 1 million, I’d know how to go about it.”

Participant 2’s attitude reflects those of her peers: when discussing their businesses and experiences subsequent to the program, participants openly discussed challenges around funding, finding suppliers, and time, but qualified their frustrations with the recognition that navigating uncertainty and responding to setbacks are part of an entrepreneurs journey. In diving further into what mechanisms enabled participants to manage their uncertainty, there was a clear reflection back to the program. In the first instance, participants spoke of the support derived from a group of like-minded peers who had the effect of normalizing uncertainty and challenge. And secondly, participants pointed to the core skills of the program and their transferability: the ability to observe and understand a problem and develop a coherent set of actions in response, applies beyond business development. This has a particularly important role in building the resilience of female entrepreneurs who may face additional pressures in straddling the personal and professional:

“Along the line, things happen - child birth. [Participant was pregnant at the time of the program and is currently on maternity leave] It could discourage you or make you think you shouldn’t be in business as a lady. But from what I learnt at the bootcamp, I got to understand that if you have a vision, you can always go back to it even if the plan changes.”

Participant 3

The program’s focus on starting small and testing an idea, combined with its impact in equipping participants with the confidence to navigate challenges, had a particularly interesting result when it came to managing funding constraints. Although widely cited as a barrier in both the pre-program surveys and in the evaluation interviews, participants nevertheless demonstrated an ability to creatively respond:

“But I’ve learnt how to spend my capital. if you have a little, how do you spend it to get more out of it? You shouldn’t wait until you get huge money before you try to set something. With the little you have, you can start small. You just have to be focused.”

Participant 7

Similarly, Participant 1, who wanted to manufacture dolls, recognized that digital stories were a more cost-effective ‘minimum-viable product’. While early stage funding prevails as a constraint in the ecosystem, the value of teaching participants to think small is in part driven and enabled by the lack of funding available. If access to funding was more readily available, the program may require a deeper focus on supporting participants to think creatively and carefully about where and how to manage capital. The latter is not, however, a challenge to be ignored, particularly given the significant impact a small level of funding can have on a business. Key Informant 3, for example, noted that 500 GHC could get a business registered, which plays a valuable role in giving a business legitimacy and thereby, access to partnerships. Consistent with conversations at the ecosystem roundtable, grant funding from \$5000-\$50,000 can play an important role in supporting the proliferation of early-stage ventures in the ecosystem.

Overall, the program’s ability to value and critically validate ideas contributed to a certain maturity among participants; participants recognized the importance of forming the right partnerships and networks to align with their vision as opposed to settling for opportunities or resources that would compromise their direction. Participant 4, for example, felt her biggest challenge was building the right team and taking the time to do so given the pressure to meet the high demands made of her fledgling business. Participant 1 on the other hand, spoke about her navigating the opinions of others who, when not able to provide access to funding, would articulate a different strategy that would deflect from her goals. Here, she demonstrated an ability to critically think through the offers and their implications for her business prior to welcoming support. The ability to negotiate opportunities was clearly linked to confidence and highlight the program’s effectiveness in equipping participants with a strong sense of self in tandem with business skills.

Technology: Motivating a change in perception

Alongside skills pertaining to ideation and business model development, #HerFutureAfrica had a particular focus on supporting digital literacy among participants. Here, there are two elements at play: one, the need to motivate a shift in perceptions of technology as accessible and relevant to one’s business, and two, the need to be equipped with a basic literacy on how to employ digital tools for professional purposes.

On the first account, all participants interviewed traced a shift in their thinking with respect to technology. Participant 5 for example, was running a packaging business and felt she started to count herself as a candidate in the space subsequent to the program:

“I’m not a techy person, I don’t program, I don’t code. Getting into the program got me to realize that even incorporating a website, you are being technologically inclined. It actually got me to realize you don’t have to be programming to be involved. I shouldn’t

just close my mind that I'm not part of that community. Once I'm an entrepreneur, I'm trying to create a solution...I'm also being innovative in my own way. And I use technology in my little way."

Similarly, Participant 7 spoke of her realization that "technology makes things easier." Building on what she learnt in the program, she signed up for a coding camp for girls run by #HerFutureAfrica's local partner, Women in Tech. In further discussions, Participant 7 noted she would not have registered for the program without her exposure to #HerFutureAfrica but following the program, felt it was a natural next step. Applying the learning from these two programs, Participant 7 is currently working on a software application to support customers in selecting their hairstyles for wigs digitally.

As Participants 5 and 7 reveal, the program is effective in shifting perceptions of the relevance and accessibility of technology and building the confidence necessary to support participants in expanding their skillset. In other instances, the impact of the program is less direct but nevertheless evident. Participant 1, for example, came into the program with the intention of manufacturing dolls and then discovered a whole range of product channels by which to build market engagement. Among them was animation. While she does not intend to equip herself with the skills to animate, Participant 1 is clear on her intention to partner with industry to integrate this into her product offering. Thus, while some participants choose to equip themselves with the tech-skills, others recognize their role in the ecosystem as based on partnership.

Technology: Equipping participants with digital tools

While there is clear evidence of the program's impact in challenging the preconceptions of who belongs in the tech ecosystem and in sowing the seeds of interest among participants to leverage other related opportunities, the results are more varied with respect to the program's direct impact on equipping participants with the tools required for tech-enabled businesses. Participants who were previously avid social media users were able to adapt and continue using these platforms for their businesses while those who were less conversant to start with, did not seem to be making use of the digital tools introduced. One participant for example, was able to point to the Instagram account she created during the program but was no longer updating it and seemed diffident in articulating her vision for the platform. Relatedly, another participant pointed to her Facebook page for marketing but reflected, "the way I was promoting it, I don't think it was the best." And finally, a third participant, who was previously using Facebook to a large extent continued her use of this platform but noted her next step was to work on her dormant website, the latter created during the program. When probed further, participants revealed the disconnect between using social media platforms in their personal lives and using them for business purposes; as one participant aptly noted, "it's not the same as taking a selfie." A deeper understanding of how to generate content for digital marketing would be beneficial to participants in sustaining their digital engagement and perhaps, in further motivating their adoption of such tools. This would complement the program's effective training in concepts such as user-centered design and visual management, both of which are key components of a digital training and were viewed to be new concepts by both participants and local partners.

Despite the comparatively more mixed evidence with respect to adopting tech tools, the evaluation places greater weight on the program's ability to change perceptions pertaining to the accessibility of the tech sector than it does its ability to sustain the adoption of web or social media tools. This is for the simple reason that the program is aimed at early-stage entrepreneurs, and is therefore, primarily concerned with impacting perceptions and in equipping participants with the tools for ideation, iteration, visualization, and experimentation. The latter are foundational to any business and particularly necessary in the technology sector. This does however, validate the need for strong networks to support early stage entrepreneurs in accessing the resources and opportunities at subsequent times when they are deemed relevant.

Pathway 2: access to local and international networks

In complement to the core curriculum were the program's deliberate efforts to expose participants to a diverse range of entrepreneurs and thought-leaders both locally and internationally. In the first instance, the program's effective recruitment resulted in a strong network of participants who were supported in getting to know each other and learning together. The mutual respect and genuine interest in seeing each other succeed was visible and particularly came across during the focus group when one participant would jump in to help another articulate her business idea and affirm her progress. Participants spoke about their use and promotion of each others products and displayed a genuine affection for the community built through the program. This extended to include the strong relationship with the local partner, who continued support to participants subsequent to the program by either facilitating additional connections or simply by showing interest through an unexpected phone call. Three girls for example, sought the accounting experience of Jayset, a partner of #HerFutureAfrica, while another three, sought advice with registering their business.

In addition to fostering a strong network among the core cohort, #HerFutureAfrica worked to bring participants in contact with industry experts and potential partners. The speed networking session at the end of the innovation bootcamp, for example, was viewed as a highlight due to the inspiration drawn from the diversity of profiles and personalities it brought forth. Some, however, felt it was too short and did not provide an adequate opportunity to connect with the locally-based industry experts present. When queried as to whether or not these individuals were previously accessible to participants, there was a definite no:

“My business was just my business. I didn't know anyone until I was chosen for the bootcamp. I had no motivation to go out and just try to meet these people. I feel like these people don't really care about you until they meet you through a program like this. If for example, I came to Josiah's office without him knowing me from anywhere, maybe the response would have been, [she shrugs]...but with oh, she's from #HerFutureAfrica; the program gives them a perception of you.”

Participant 3

“People are difficult to get access to. You usually have to pay.”

Participant 2

While for some participants, a perceived lack of access or financial constraints prevented reaching out to networks of support, in other cases, it was the sense that knowing where and who to go to requires identifying why you need them and to what extent there are mutual benefits. This requires a clear understanding of one’s business, which a number of participants felt they lacked at the onset. A lack of confidence in this respect invariably inhibits the ability to actively pursue additional networks. Conversely, participants spoke of how exposure to a broader network reinforced their confidence, passion for their business ideas, and ability to reach out to other stakeholders. As has been discussed and will be elaborated on further below, this was manifest in the new opportunities for learning and growth leveraged by #HerFutureAfrica participants.

Mentorship program

One of the more structured mechanisms by which the program sought to support the network effect was through a mentorship program. Mentors and mentees benefitted from the experience, although some more than others; a variance in experiences was evident. Where the relationship was strong, the benefits were large and extremely apparent. Participant 4, for example, drew on her mentor’s experience to complete her market research and practice her pitch on numerous occasions. She came into the program with the desire to teach young girls how to code and left the program with a concrete business plan that finished 2nd during the program’s final pitch event featuring the Top 10 candidates. With her mentor’s encouragement and support, Participant 4 competed in the Ghana Youth Social Entrepreneurship competition where she placed 2nd and received \$1000 in prize money, sufficient to develop a pilot program. While at this competition, she met a judge who referred her to another competition which then took her to Germany. Participant 4 credits her rapid success to the catalytic exposure provided by #HerFutureAfrica and referred back fondly to the moment when her mentor rounded his friends over Skype to give her an audience to practice her pitch. Within just 6 months of the program, she had presented her idea to notable audiences including the German Chancellor, Angela Merkel, and the President of Ghana, Mr. Nana Akufo-Addo, while securing valuable partnerships with corporates like Google.

In contrast to Participant 4, Participant 1’s experience of the mentorship program was less consistent; while the conversations with her mentor were “very helpful,” particularly in supporting her articulate her idea and practicing her pitch, she found her mentor to be relatively detached:

“Unfortunately, she was really busy. I spoke to her twice and got responses very infrequently.”

Participant 1

The variance in the strength of the mentorship program from the view of mentees was echoed by mentors; while some had extremely positive experiences, others left feeling frustrated at the

seeming lack of commitment on the part of their mentees to schedule sessions and adhere to timelines:

“The way she thinks about society has inspired me.”

Mentor 1, survey respondent

“It has impacted me on a personal level because I was able to give her professional advice that I didn’t know I was capable of.”

Mentor 2, survey respondent

“She did not show up to 2 of the Skype meetings, which I found disappointing as I had planned my day around those times.”

Mentor 2, survey respondent

“Me mentee did not seem to want to chat to me after our first encounter. I am not sure why.”

Mentor 4, survey respondent

When asked as to the ways in which the program could have improved, a number of suggestions were made. Some mentors felt the program could do more to provide context to support them in situating their role within the broader program while others felt the expected time commitments for the program should be made more explicit to participants. Again, interview findings are consistent with survey results, where 75 percent of respondents suggested providing more background on mentees and the program beforehand as a helpful improvement for future iterations. Moreover, mentees felt increasing the time allocated to the mentorship program would be beneficial. To this end, one mentee suggested making introductions earlier on in the program to facilitate the relationship:

“The mentorship can be initiated once the participants are selected. This would help establish a bond even before the bootcamp. This bond will then be solidified during the one month given to hand over assignments. Getting to know and bond with someone; getting to help someone understand your vision so that the person can guide you in that process needs more than a month.”

Participant 8, Survey respondent

Relatedly, one mentor who was interviewed for the evaluation felt more work needed to be done to support participants in understanding the “rules of engagement” in the mentorship program. This seemed to impact participants as well, particularly subsequent to the required number of sessions being completed, as it was less clear how to transition the relationship:

“It becomes tricky after the program - you don’t know what you can expect from them.”

Participant 1

The varied experiences make it difficult to provide a substantive comment on the mentorship program as a whole. However, as the survey results below demonstrate, participants benefit greatly even from a single conversation, highlighting the increasing returns of mentorship to

participants who are at the early stage of their entrepreneurial journey. To this end, 40.74 percent of respondents gave the program a rating of 5 (being the highest) while 29.63 percent, gave it a 4 (Figure 2).

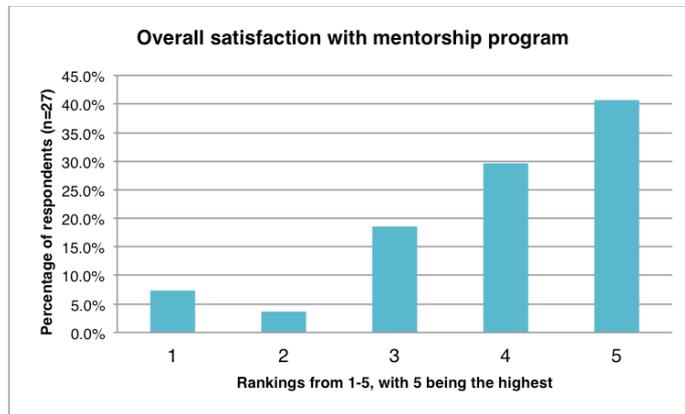


Figure 2: Satisfaction with the mentorship program

This is further evidenced in Figure 3 (below), where participants reveal the benefit of the mentorship relationship in contributing to a skills transfer across some of the program’s key areas (e.g. market research).

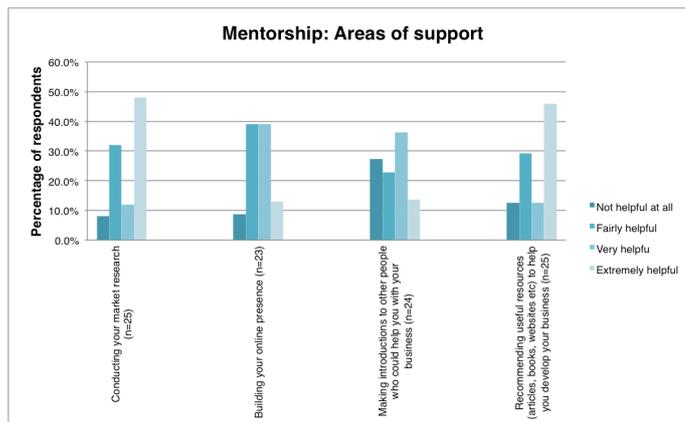


Figure 3: Skills and support gained through the mentorship program

Thus, despite challenges associated with ensuring consistency across all mentor/mentee matches, the survey results reveal the mentorship program is able to affect change towards the program’s desired outcomes. Improvements to the structure of the mentorship program, including setting the context and providing guidance as to the time commitments required, can consolidate and accelerate these benefits.

Access to business support

In addition to the mentorship program, #HerFutureAfrica sought to support participants in building their networks through a series of other business support opportunities. These ranged from access to co-working space to media coverage and exposure. One participant for

example, was offered a radio interview by a leading public relations professional who met #HerFutureAfrica candidates while serving as a judge during the final pitch event.

In some instances, however, participants struggled to maximize on the opportunities present. For Participant 1, it was to make use of the branding support offered to her through the program:

"One sponsor was supposed to give us branding support – but that didn't happen – there was a bit of a tussle between the sponsor. The program could have stepped in and supported that more; it wasn't my place to have to tussle"

Participant 1

The challenges here reflect one of the few criticisms of participants: the lack of structured follow-up subsequent to the program's completion.

While all participants interviewed were working on their respective business, many spoke of friends who had stopped. When asked as to why they felt it was the case, participants suggested it was the lack of motivation and a supportive system to navigate constraints. The follow-up phone calls made by the local partner to speak with inactive participants suggest competing work pressures and familial responsibilities are key reasons for discontinuation. While it should not necessarily be the goal of any incubation program to see all initial participants continue to launch scalable businesses, the program can further its impact and play an important role in contributing to the sector's knowledge of itself by better understanding what leads to a drop-off in activity.⁴

Further with respect to in-kind support, the few interviewed candidates who were offered access to co-working space had not made use of it, with the majority feeling as though they were not at the stage in their business where it could be put to consistent use once membership was activated. In some cases, commuting to Accra proved inconvenient for participants located in other areas (Participants 1,3,4,5).

As the discussion highlights, the program makes considerable effort to ensure participants are well-connected to a wide range of opportunities to expand their networks. Participant motivation factors into the ability to leverage and take ownership of presented opportunities, and this is to a large extent well-examined during the selection process. The program would benefit from a continued focus on its selection process but can complement its efforts by dedicating support to participants who exhibit an eagerness to maximize on the networks and relational opportunities offered.

⁴ The high-rate of failure in the start-up ecosystem is widely recognized. While there is some evidence to suggest that businesses nurtured in an incubator have a higher rate of success than those without (Fast Company, 2016), there is no industry benchmark for business continuation subsequent to incubation.

The impact of empowered female entrepreneurs

The program's two key program pathways highlight its clear contribution toward the observed outcomes. Moreover, the impact of increased confidence gained through relevant business skills training and #HerFutureAfrica networks was markedly apparent in participants' continued involvement with additional programs/incubators, market research, and product demonstrations. The growth and success of female entrepreneurs in this regard had a clear multiplicative effect, with a number of participants articulating the ways in which they were championing the cause of other women and girls directly and indirectly through their businesses.

Participant 4, for example, whose business was aimed at equipping girls with coding and tech skills, successfully ran a bootcamp for 20 girls that resulted in 5 women securing full-time jobs as web developers, another 5 working as freelance web developers, 1 securing a role as a network engineer, and 6 teaming up to build a waste management application that subsequently placed first in a local hackathon. Of all participants, 3 had not been to university previously while 1 decided to pursue higher-education subsequent to the bootcamp.

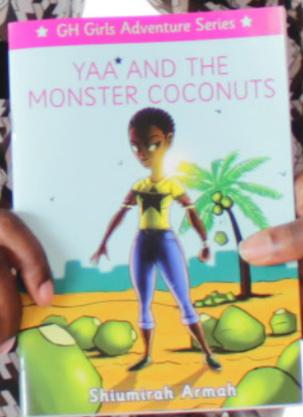
From a more indirect perspective, Participant 2 spoke of how she involved two of her neighbours in her catering orders as a means of inspiring their agency at an early age:

“There are two girls who have just finished senior high. They were doing nothing. I asked them to come and help me and then we go out and serve it. I pay them. By the time they are ready for school, they will have some of their own money. Maybe they just get the idea that even if you are on vacation, you can do something for yourself, make some income for yourself so that by the time you're getting ready to go to school, you can say, “oh mom, here you can use this towards my books.”

And finally, Participant 1, reflected on the impact of her work on a less obvious but highly significant dimension — modelling potential to her adolescent daughter whom she proudly noted was her chief editor.

While in no way exhaustive, these examples lend evidence to the multiplicative impact of empowering women and girls, highlighting the value of #HerFutureAfrica's attainment of its core program outcomes.

#HERFO
BUSINESS
INNOVATION
LAB



Equipping Africa
Innovators to Build

Powered by

ATP

Monitoring and Evaluation Capacity

To a much lesser degree, this evaluation was concerned with reviewing ATBN's internal Monitoring, Evaluation and Learning (MEL) capacity in relation to #HerFutureAfrica. In the first instance, the program's use of a Theory of Change supports its clear articulation of how and where it expects to see change. The team were collecting data on an on-going basis to support an iterative program design and demonstrated the ability to adapt when opportunities arose. For example, the mentorship program was intended for a sub-set of bootcamp participants but upon receiving a high volume of interest from recruited mentors, the team decided to scale its efforts and connect all bootcamp participants with a mentorship opportunity. Although this brought its own set of challenges, the team displayed a commendable ability to reflect on and refine aspects of the program during its course. In so doing, ATBN fulfills a key objective of any monitoring and evaluation process: learning and iteration.

There are, however, a few areas for improvement. While the team were able to speak clearly about the assumptions underpinning the program and the evidence driving the Theory of Change, there is scope to make this process more participatory. For example, the team discussed the Theory of Change with their local partners at the close of the program. While this is beneficial, the program could integrate local insight more effectively into program design by engaging local partners in constructing the Theory of Change itself. To this end, although the program was structured as a women-only cohort, it was clear various program partners had differing views as to the benefits and drawbacks of such a design; some felt having men involved was crucial to preventing complacency while others felt it was not appropriate at such an early stage. Such debate not only stimulates ideation that is relevant to program design but also brings to the forefront competing hypotheses as to what drives change. Uncovering, and where possible, evidencing, these varied assumptions at the onset can support the team in more critically verifying the factors that contribute to strong program outcomes.

The program's Theory of Change is accompanied by a well-considered performance framework, which includes clear plans for data collection. In constructing a baseline and surveying pre and post program outcomes, the program demonstrates clarity as to what change it expects to measure and where. The team were equally aware of the limits to the data collected and proved proactive in trying to respond to gaps. For example, recognizing the difficulty in accessing less active participants, the team worked with their local partner to arrange a series of follow-up phone calls subsequent to the evaluation visit. Most encouragingly, the driving force behind these efforts was to build an understanding of how and where to improve the program. The team further demonstrated a keen attention to the local context, tracking news and media for related programs and documenting the media exposure #HerFutureAfrica participants received.

While overall, the program has a clear framework for measuring change, indicators associated with Outcome 2 could be more closely linked to the expected result. To this end, a core component of Outcome 2 was to see an increased capacity in participants' ability to integrate digital tools in support of their business. However, the indicators associated with Outcome 2 were limited in their link and depth in relation to this aspect of the program. This seemed to be driven in part by the desire to be realistic about the degree of change expected over such a short period. While reasonable, the program can accelerate its impact by drawing on established performance frameworks within the technology sector to support a more targeted approach to sector-specific learning outcomes. This would strengthen ATBN's overall effectiveness in planning for and evaluating outcomes.



Conclusion and Recommendations

#HerFutureAfrica has a clear and indisputable impact on empowering participants through its strong core curriculum and its provision of a wide range of new networks, starting from a well-selected cohort to industry experts and mentors. The evaluation finds the program makes a significant contribution towards its outcomes and has a particularly strong contribution claim via Pathway 1. The program targets the right audience and effectively attracts a wide demographic of female entrepreneurs into a space they would otherwise not count themselves within. The latter, in conjunction with the program's strong focus on using business solutions to positively impact the lives of women and girls, enables the program to extend its impact beyond the scope of its direct participants to those within participants' sphere of influence.

The program's success can be further attributed to a strong relationship with the local partner. Clear and consistent communication, mutual respect, and a strong commitment to program outcomes were evident between both parties and proved critical to the program's success. Moreover, the program was well-timed, capitalizing on the growing interest in the social enterprise and technology ecosystem within the African continent and Ghana more specifically. Given the right idea at the wrong time proves inevitably to be the wrong idea, #HerFutureAfrica benefits from a well-timed intervention.

The outcomes of the program verify one of the program's key assumptions: women have market insights that can enable them to develop products and services around the needs of women and girls provided they have access to the right training and tools. Furthermore, while some participants expressed a willingness to participate in the program had it been a mixed cohort, the program risks losing some of its potential candidates with this shift as a) some participants explicitly stated preferences for a female-only cohort and b) some may not have the confidence to select-in. The latter is a particularly crucial point, and evidenced by the largely varied confidence levels among participants at the onset of the program (Figure 1 within the findings). While a mixed-cohort subsequent to the core innovation bootcamp may be a valuable complement, these initial results provide validation for a second assumption made by the program, namely, that women need a safe space by which to innovate and enter the ecosystem. Moreover, the fact that applicants were screened based on their ability to consider women and girls in their business solutions meant it was considerably easier for participants to agree on the value of a gender lens in business planning. If a mixed cohort, however, the program may have a stronger opportunity to influence and shape a gender lens within the sector.

Recommendations

- Expand core curriculum to incorporate tools on digital marketing and/or content production to complement teaching on web-design and social media platforms.
- Inform all applicants of the program's time commitments as part of the recruitment advert. This would support the selection process and better ensure selected candidates have the availability and commitment desired.
- Introduce mentors and mentees at the onset of the bootcamp and create more structure to support this aspect of the program. For example, provide mentors more comprehensive background to the program and core curriculum and develop high-level terms to manage expectations between mentors/mentees.
- Improve follow-up to the program, including dedicated support to participants in accessing the business support offered.
- Develop the Theory of Change in collaboration with local partners to ensure assumptions and hypotheses underpinning the model are informed by local knowledge at the onset. This will further ensure a more participatory MEL system that is owned and championed equally between partners.
- Be more explicit in citing the literature and evidence that informs the program Theory of Change. This will not only support refining the Theory of Change but equally, equip the team to make a valuable contribution to advancing conversations in the ecosystem.
- Set indicators for Outcome 2 with reference to established performance frameworks — the Tech Partnership for example, has a basic digital skills framework that cuts across 5 dimensions: managing information, communicating, transacting, problem solving, and creating.



References

Agile Alliance. (2015). "What is a Minimum Viable Product?" Retrieved February 6, 2018 from <https://www.agilealliance.org/glossary/mvp/>

African Development Bank. (n.d.). "Ghana Economic Outlook." Retrieved November 10, 2018 from <https://www.afdb.org/en/countries/west-africa/ghana/ghana-economic-outlook/>

Aspen Network of Development Entrepreneurs. "Measuring Value Created by Impact Incubators and Accelerators." (2014). Retrieved October 12, 2017 from <https://assets.aspeninstitute.org/content/uploads/files/content/docs/resources/ANDE%20-DEV%20INCUBATOR%20REPORT%2011-21-14%20FINAL%20FOR%20DISTRIBUTION.pdf>

Baron, R., and Markman, G. (2000). "Beyond social capital: How social skills can enhance entrepreneurs' success." *Academy of Management*. Vol. 14, No.1, p. 106-116.

Baughin, C., Glen, R., and Suciu, C. (2014). "The Need for Design Thinking in Business Schools - A Review." *Academy of Management Learning and Education*. Vol. 13, No. 4, p. 653-667.

Becker, E. (2017). "Overcoming the challenges of being a woman in Tech." [Blog post]. Retrieved November 10, 2017 from <https://uxdesign.cc/overcoming-the-challenges-of-being-a-woman-in-tech-91930375c40f>.

British Council. (2016). "The state of social enterprise in Ghana." Retrieved October 13, 2017 from <https://www.britishcouncil.org.gh/sites/default/files/social-enterprise-bc-report-ch3-ghana-digital.pdf>

British Council and the Overseas Development Institute. (2015). "Social Enterprise Landscape in Ghana." Retrieved October 13, 2017 from https://www.britishcouncil.org/sites/default/files/social_enterprise_landscape_in_ghana_report_final.pdf

Cantor, J. (1997). "Experiential Learning in Higher Education: Linking Classroom and Community." *Eric Digest*. Retrieved <https://files.eric.ed.gov/fulltext/ED404948.pdf>

Care International. (2014). "Women's Empowerment Framework." Retrieved October 13, 2017 from <https://www.care.org/our-work/womens-empowerment/gender-integration/womens-empowerment-framework>

Cherie Blair Foundation. (2016). "Empowering Women, Broadening Horizons: An Independent Evaluation of the Mentoring Women in Business Programme." Retrieved December 19, 2017 at <http://www.cherieblairfoundation.org/wp-content/uploads/2016/06/Empowering-Women-Broadening-Horizons.pdf>

Fast Company. (2016). "Do accelerators and incubators serve themselves better startups?" Retrieved January 13, 2018 from <https://www.fastcompany.com/3055445/do-accelerators-and-incubators-serve-themselves-better-than-startups>

Federal Ministry for Economic Cooperation and Development. (2017). "Women's Pathways to the Digital Sector: Stories of Opportunities and Challenges." Retrieved October 17, 2017 from https://www.bmz.de/en/publications/type_of_publication/weitere_materialien/study_eSkills4girls.pdf

Fortune. (2017). "Venture Capital's Funding Gap is Actually Getting Worse." Retrieved January 19, 2018 from <https://uxdesign.cc/overcoming-the-challenges-of-being-a-woman-in-tech-91930375c40f>.

Greenberg, M. (2014). "The Ghanaian Startup Ecosystem." Retrieved October 14, 2017 from <http://meltwater.org/wp-content/uploads/2014/09/Ghanaian-Startup-Ecosystem-Report.pdf>

Hamer, L. (2000). "The Additive Effects of Semistructured Classroom Activities on Student Learning: An Application of Classroom-Based Experiential Learning Techniques. *Sage Publications*. Vol. 22. No. 1, p. 25-34

International Finance Corporation. (2007). "Gender and Economic Growth Assessment for Ghana 2007." Retrieved on October 19, 2017 from <https://www.ifc.org/wps/wcm/connect/debed98048855534b5fcf76a6515bb18/Ghana%2BGender%2BAssessment.pdf?MOD=AJPERES&CACHEID=debed98048855534b5fcf76a6515bb18>

International Monetary Fund. (2016). "Second review under the Extended Credit Facility arrangement and request for waiver for nonobservance of performance criterion." Retrieved November 10, 2017 from <https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Ghana-Second-Review-Under-the-Extended-Credit-Facility-Arrangement-and-Request-for-Waiver-43628>

International Monetary Fund. (2017). "Article IV Consultation, Fourth Review under the Extended Credit Facility Arrangement, Request for Waiver for Nonobservance of Performance Criteria and Request for Extension and Re-phasing of the arrangement." IMF Country Report No. 17/262. Retrieved November 10, 2017 from <https://www.imf.org/en/Publications/CR/Issues/2017/09/06/Ghana-2017-Article-IV-Consultation-Fourth-Review-Under-the-Extended-Credit-Facility-45224>

Katz, E. (2008). "Programs Promoting Young Women's Employment. What Works?" Retrieved October 14, 2017 from <http://siteresources.worldbank.org/INTGENDER/Resources/GenderYouthEmploymentKatz.pdf>

Melo, C., and Parsons, R. (2015, November 5). "Why Girls, Safe Spaces and Coding can Close the Gender Gap in Technology — and Drive Equality." [Blog post]. Retrieved November 10, 2017 from https://www.huffingtonpost.com/rebecca-parsons/why-girls-safe-spaces-and_1_b_7258436.html

Meltwater Entrepreneurial School of Technology. (2014, November 26). "MEST Women in Tech: How MEST Recruits Ghanaian and Nigerian Women Tech Entrepreneurs." [Blog post]. Retrieved October 16, 2017 from <https://meltwater.org/recruiting-mest-women-tech/>

Mobile Economy. (2017). "The Mobile Economy West Africa 2017." Retrieved November 14, 2017 from <https://www.gsma.com/mobileeconomy/west-africa/>

National Communications Authority. (2016). "Quarterly Statistical Bulletin on Communications in Ghana." Vol. 1, No.2. Retrieved on October 12, 2017 from <https://nca.org.gh/assets/Uploads/Quarterly-statistics-03-11-16-fin.pdf>

Population Council. (2015). "Invest in Girls, Change the World." Retrieved January 13, 2017 from <http://www.popcouncil.org/news/invest-in-girls-change-the-world>

The African Development Bank. "Ghana Economic Outlook." Retrieved October 14, 2017 from <https://www.afdb.org/en/countries/west-africa/ghana/ghana-economic-outlook/>

The Tech Partnership. "Basic Digital Skills Framework 2015: Addressing the 5 areas of digital capability." Retrieved on January 12, 2018 from <https://>

www.thetechpartnership.com/basic-digital-skills/basic-digital-skills-framework/basic-digital-skills-framework-2015/

The World Bank. (2017). "The World Bank in Ghana: Context." Retrieved October 24, 2017 from <http://www.worldbank.org/en/country/ghana/overview>

UNESCO. (2017). "STEM clinics to boost girls' participation in STEM education Ghana." Retrieved October 24, 2017 from <http://www.un.org/africarenewal/news/stem-clinics-boost-girls'-participation-stem-education-ghana>

Appendix

Tables 1 and 2 present the program's outcomes and performance indicators while Figure 1 presents the program's Theory of Change.

Outcome 1 description							
Young, African women are empowered to innovatively solve challenges and confidently share their ideas							
Quantitative indicators:							
Indicator	Description	Baseline	Target number Total	Percentage (%) change	Number Male	Number Female	Data collection methods
Indicator a	Percentage of participants indicating that the programme significantly increased their ability to analyse problems and develop innovative solutions	0		70%	0	21	<ul style="list-style-type: none"> Post-programme self-assessments (Percentage of participants giving an average rating of 4 and above on a scale of 1 to 5 where 5 represents the best score)
Indicator b	Percentage of participants who go on to mentor another women and share of some the knowledge and skills they acquired during the programme with them.	0		50%	0	15	<ul style="list-style-type: none"> 6 months follow up questionnaire and interviews
Indicator c	Percentage of participants reporting a significant increase in their confidence in speaking publicly and sharing their ideas	0		70%	0	21	<ul style="list-style-type: none"> Post-programme self-assessments (Percentage of participants giving an average rating of 4 and above on a scale of 1 to 5 where 5 represents the best score)
Qualitative indicators:							
Indicator	Description	Baseline (if appropriate)		Target (if appropriate)		Data collection methods	
	Level of satisfaction reported by participants with the mentorship support they received						<ul style="list-style-type: none"> Feedback forms (Give an average rating of 4 and above on a scale of 1 to 5 where 5 represents the best score)
Indicator e	Extent to which women have taken on new roles and activities that they attribute to the skills and confidence gained in the programme						<ul style="list-style-type: none"> 6 months follow-up interviews and case studies

Table 1: Outcome 1 and associated indicators

Outcome 2 description (delete if not applicable)							
Women-led, early-stage initiatives create technology-enabled solutions to improve the lives of women and girls in Africa							
Quantitative indicators:							
Indicator	Description	Baseline	Target number Total	Percentage (%) change	Number Male	Number Female	Data collection methods
Indicator a	Percentage of participants who are able to show adjustments and improvements to their solutions based on feedback collected from women and girls that their solution could potentially impact	0		50%		15	<ul style="list-style-type: none"> Team assignments 6 months follow up questionnaire and interviews
Indicator b	Percentage of participants who are still actively working on developing their initiatives (e.g have approached potential clients or partners after the programme, have an active/updated website or social media account or have pitched their idea at other startup events)	0		30%	0	9	<ul style="list-style-type: none"> 6 months follow up questionnaire and interviews
Indicator c	Percentage of participants indicating that the programme significantly increased their knowledge of and ability to incorporate technology tools in the development of their initiatives	0		70%	0	21	<ul style="list-style-type: none"> Post-programme self-assessments
Qualitative indicators:							
Indicator	Description	Baseline (if appropriate)		Target (if appropriate)		Data collection methods	
Indicator d	Level of public awareness raised about the programme and the initiatives developed (e.g number and readership of press features, number of social media followers, website visits)						<ul style="list-style-type: none"> Tracking programmes digital footprint 6 months follow up questionnaire and interviews
Indicator e	Extent to which the initiatives developed are perceived (by the judging panel) as having potential to impact the lives of women and girls						<ul style="list-style-type: none"> Judges scoresheets

Figure 2: Outcome 2 and associated indicators

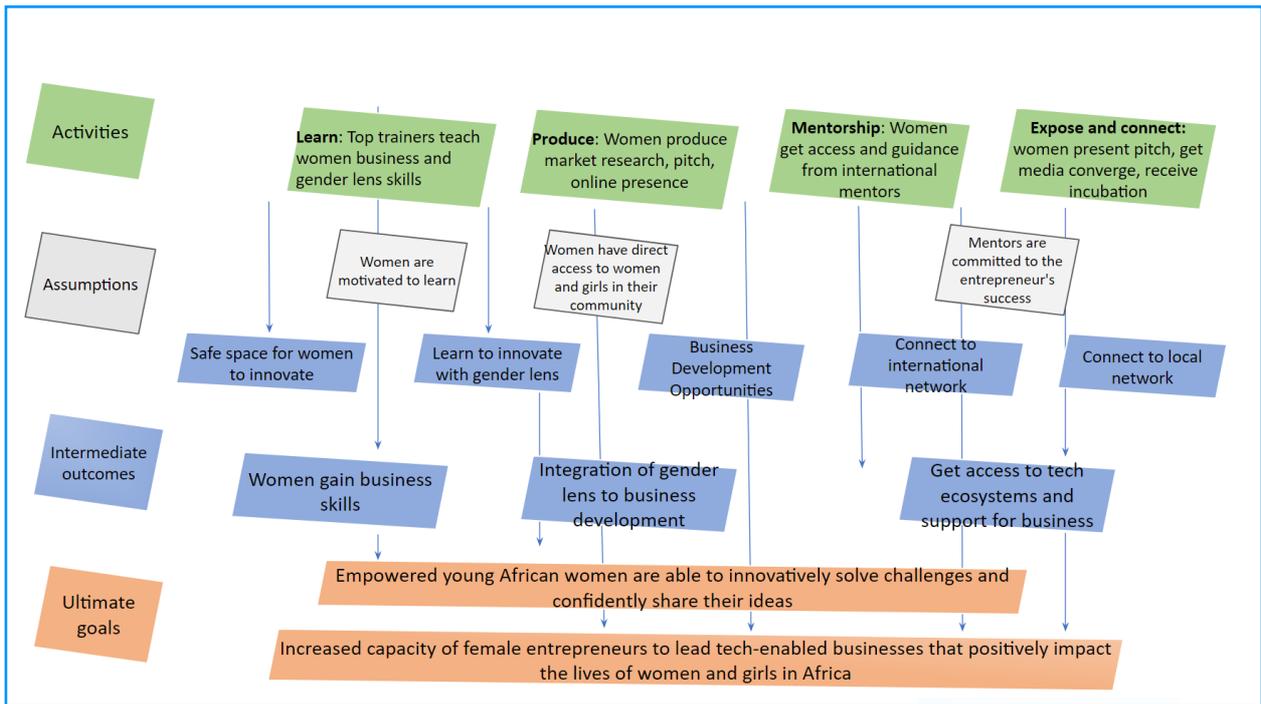


Figure 1: #HerFutureAfrica Theory of Change

